PUBLIC SCHOOL PROGRAMS

2013–2014

- Goals and Policies
- Program and Course Descriptions
- Services, Procedures, and Publications

Draft, October 16, 2013

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Public School Programs: 2013–2014

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Foreword

This handbook is produced for school boards, school administrators, and teaching staffs. It presents the goals and policies of public school education in Nova Scotia, describes what students should know and be able to do (essential graduation learnings) if the goals are to be reached, and describes the programs and courses offered in the public school program. School boards, school administrators, and teaching staffs are to use the information provided in this handbook as the basis of their programs.

Programs and courses are elaborated in Program and Course Descriptions. Information on publications and resources is found at the back of this resource.

This handbook is also available for download or ordering in hard copy on the Department of Education and Early Childhood Development's website in the document depot at http://ednet.ns.ca. It may also be ordered in hard copy by contacting us at Nova Scotia Department of Education and Early Childhood Development, English Program Services, PO Box 578, Halifax, NS B3J 2S9, Canada.

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The Goals of Public Education

The Goals of Public Education

The primary mandate of the public school system in Nova Scotia is to provide education programs and services for students to enable them to develop their potential and acquire the knowledge, skills, and attitudes needed to contribute to a healthy society and a prosperous and sustainable economy.

Preparing All Students for a Lifetime of Learning

Fundamental changes are occurring in the world. The economy is becoming more diversified and is placing a greater emphasis on information-based enterprises, global competitiveness, and sustainable development. Society is becoming more diverse in family structure, language, culture, values, and perspectives. There is a growing awareness of global interdependence among peoples and nations. Nova Scotia's future is becoming more reliant upon partnerships and collaboration.

To function successfully in this changing environment, all children in Nova Scotia need a broad-based, quality education. Quality in education is demonstrated by the excellence of individual courses, programs, and shared experiences. Quality is also demonstrated by the diversity of educational experiences in which students are actively involved and by the extent to which individual student needs are met.

The challenge of education is to offer a school experience that will provide students with opportunities to develop the understanding, skills, and attitudes necessary to become lifelong learners capable of identifying and solving problems and dealing effectively with change. Students need well-developed organizational and interpersonal skills, which include working collaboratively with others and developing leadership skills. Students need to be able to communicate clearly, competently, and confidently from a broad knowledge base to make thoughtful and responsible decisions. Achieving these educational goals will allow students to make connections between what they learn and how they live.

Fundamental to achieving these goals is the development of each student's self-esteem. Self-esteem is most effectively fostered by a learner-centred school environment that provides opportunities for all students to experience success from a variety of achievements. This success should enable learners to build confidence regarding their abilities and competencies and, more importantly, foster an image of themselves as persons of dignity and value who deserve respect. To this end, educational programs, services, and the teaching/learning environment must be sensitive to the culture and heritage of learners and must actively promote anti-racist principles.

Our vision of an educated person is that of a competent, confident learner able to think critically and participate fully in a democratic society and in a lifetime of meaningful work. A sound education provided in partnership with the home and the community forms the basis for students to become healthy and caring persons, having a respect for self and others and a desire to contribute to society as productive citizens.

A comprehensive education must offer a balanced program of studies that includes opportunities to explore the cultural, aesthetic, social, intellectual, physical, vocational, and moral aspects of society. All partners in education must work together to provide a stimulating and supportive environment to assist individuals in reaching their full potential.

Essential Graduation Learnings

Public school education in Nova Scotia has two major goals: to help all students develop to their full potential cognitively, affectively, physically, and socially and to help all students acquire the knowledge, attitudes, and skills necessary for them to continue as thinking, learning, physically active, valued members of society.

The department believes that these goals can best be reached if school communities help students to develop in certain areas of learning called **Essential Graduation Learnings** (EGLs). These areas cross traditional subject boundaries and are not the monopoly of any one discipline. The Department of Education and Early Childhood Development has identified six areas of learning:

- aesthetic expression
- citizenship
- communication
- personal development
- problem solving
- technological competence

The departments of education of Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador, through the Atlantic Provinces Education Foundation (APEF), have developed statements describing what all students should know and be able to do in these areas of learning by the time they graduate. The essential graduation learnings are as follows:

Aesthetic Expression: *Graduates will be able to respond with critical awareness to various forms of the arts and be able to express themselves through the arts.*

They will, for example, be able to

- use various art forms as a means of formulating and expressing ideas, perceptions, and feelings
- demonstrate understanding of the contribution of the arts to daily life, cultural identity and diversity, and the economy
- demonstrate understanding of the ideas, perceptions, and feelings of others as expressed in various art forms
- demonstrate understanding of the significance of such cultural resources as theatres, museums, and galleries

Citizenship: *Graduates will be able to assess social, cultural, economic, and environmental interdependence in a local and global context.*

They will, for example, be able to

- demonstrate understanding of sustainable development and its implications for the environment
- demonstrate understanding of Canada's political, social, and economic systems in a global context
- explain the significance of the global economy on economic renewal and the development of society
- demonstrate understanding of the social, political, and economic forces that have shaped the past and present and apply those understandings in planning for the future
- examine human rights issues and recognize forms of discrimination
- determine the principles and actions of just, pluralistic, and democratic societies
- demonstrate understanding of their own and others' cultural heritage and cultural identity and of the contribution of multiculturalism to society

Communication: *Graduates will be able to use the listening, viewing, speaking, reading, and writing modes of language(s) and mathematical and scientific concepts and symbols to think, learn, and communicate effectively.*

They will, for example, be able to
- explore, reflect on, and express their own ideas, learnings, perceptions, and feelings
- demonstrate understanding of facts and relationships presented through words, numbers, symbols, graphs, and charts
- present information and instructions clearly, logically, concisely, and accurately for a variety of audiences
- demonstrate a knowledge of the second official language
- interpret, evaluate, and express data in everyday language
- access, process, evaluate, and share information
- critically reflect on and interpret ideas presented through a variety of media

Personal Development: *Graduates will be able to continue to learn and to pursue an active, healthy lifestyle.*

They will, for example, be able to
- demonstrate preparedness for the transition to work and further learning
- make appropriate decisions and take responsibility for those decisions
- work and study purposefully both independently and in groups
- demonstrate understanding of the relationship between health and lifestyle
- discriminate among a wide variety of career opportunities
- demonstrate coping, management, and interpersonal skills
- demonstrate intellectual curiosity, an entrepreneurial spirit, and initiative
- reflect critically on ethical issues

Problem Solving: *Graduates will be able to use the strategies and processes needed to solve a wide variety of problems, including those requiring language and mathematical and scientific concepts.*

They will, for example, be able to
- acquire, process, and interpret information critically to make informed decisions
- use a variety of strategies and perspectives with flexibility and creativity for solving problems
- formulate tentative ideas and question their own assumptions and those of others
- solve problems individually and collaboratively
- identify, describe, formulate, and reformulate problems
- frame and test hypotheses
- evaluate ideas and examples and ask for explanations
- ask questions, observe relationships, make inferences, and draw conclusions
- identify, describe, and interpret different points of view and distinguish fact from opinion

Technological Competence: *Graduates will be able to use a variety of technologies, demonstrate an understanding of technological applications, and apply appropriate technologies for solving problems.*

They will, for example, be able to
- locate, evaluate, adapt, create, and share information using a variety of sources and technologies
- demonstrate understanding of, and use, existing and developing technologies
- demonstrate understanding of the impact of technology on society
- demonstrate understanding of ethical issues related to the use of technology in a local and global context

Essential Graduation Learnings and the School Program

Providing opportunities for students to achieve the EGLs is a shared responsibility within the whole school community—none of the six "learnings" is the monopoly of one subject or discipline alone, and none is to be developed in isolation from the others. For instance, enabling students to use language as a tool for learning is the responsibility of all teachers; activities in math or science classes centring on problem solving may develop both problem-solving skills and aesthetic expression.

Aesthetic Expression

Aesthetic expression begins with an aesthetic awareness or sensitivity that engages both thoughts and feelings. That awareness involves a kind of knowing that goes beyond the acquisition of information. It has to do with knowing on a deeper level; with understanding the contexts of time, place, and community; and with internalizing human experiences and expression in a unique manner. For example, students in a social studies class may read a poem about an event or create a drama or dance to represent it, and thus deepen and enhance their understanding.

Aesthetic expression, then, has to do with response to experiences and involves the students directly. In responding or expressing aesthetically throughout the curriculum, students become aware of such qualities as rhythm, repetition, unity, symmetry, contrast, sequence, climax, balance, harmony, counterpoint, pace, and tone.

The arts, in particular, are concerned with deepening students' sensitivities and extending their aesthetic mode of knowing. Through direct engagement in the arts, whether it be in music, science, dance, math, visual arts, or language arts class, students learn about themselves and society and their potential for contributing to the interplay of ideas, emotions, and values that shape society.

For example, mathematical equations and theoretical proofs can evoke an aesthetic response for some. For students in science, an understanding of the resilience and fragility of nature and the interdependence and importance of all life forms may be an aesthetic experience. For others, movement experienced as a participant or as an observer has aesthetic meaning.

Opportunities to develop aesthetic awareness enable students to recognize the importance of aesthetic expressions in their daily lives (whether it be the music they listen to, the videos they view, the local art gallery they visit, the buildings around them, or their own poetic musings) as those expressions enrich and shape self and community, cultural identity, and diversity.

Citizenship

Citizenship education involves helping students develop the knowledge, skills, and attitudes that will enable them to have a sense of belonging and to understand, actively participate in, and contribute positively to local, regional, national, and global communities.

To this end, all students engage in co-operative learning experiences that enable them to practise the democratic principles upon which their society is based. Through the study of Canada and its development, students develop an understanding of the foundations of their democratic society. Multiple learning opportunities inside and outside the classroom enable students to develop and demonstrate their understanding of the rights and responsibilities of Canadians, the rule of law and the ways changes to the law might be made, and the dynamics of the pluralistic and multicultural society in which they live.

Throughout the public school program, students will be assisted to become informed and responsible Canadian citizens who can think creatively and critically, make judgments in an informed way, solve problems and negotiate conflict, and actively participate in the democratic process.

Communication

Communication involves articulating and interpreting information, ideas, or emotions to learn, create, or inform. To communicate, we use not only written and spoken language, numbers, and symbols, but also images, gestures, movement, music, and other sounds.

In all disciplines, language serves two very important functions: it is an instrument for learning and a means of communicating. Through formulating tentative thoughts in language, we give order and meaning to information, experiences, and concepts and so come to understand them better. In all subject areas, small group talk and exploratory writing provide students with opportunities to use language for learning.

Research shows a close connection between a student's growth in language use and his/her growth in thinking ability. Even as they use language for communication, students make ideas clearer for themselves. Through language, we make our thoughts known to others. To develop the ability to use language as an instrument for learning and communication, students need opportunities to talk and write in all subject areas for a variety of audiences and purposes. They also need to read and listen thoughtfully and sensitively.

Students calculate, estimate, measure, and use mathematics and science concepts in a wide range of disciplines. In making connections to language arts, social studies, and physical education, to name just three areas of study, students frequently interpret data found in everyday life, make judgments about their interpretations, and communicate their judgments and reasoning to others, usually using everyday language but also using the signs and symbols of mathematics.

All disciplines may provide opportunities for students to represent or clarify their ideas, knowledge, or emotions using images in, for example, drawings, photographs, or video. Students may also use movement, music, or other sounds in various combinations with language and images to give richness and complexity to their communication.

Personal Development

The public school program offers students opportunities to develop their intellectual potential and to develop attributes that promote individual, social, emotional, and physical well-being. The school program at all levels provides opportunities for fostering students' growth as collaborative and independent lifelong learners who can take responsibility for their own health and lifestyle.

The program also affords students opportunities to discover their particular interests and abilities. Each subject area engages students in reflecting on how they they learn as well as what they have learned, so that they might better know themselves as learners and build on their learning strengths. Many subject areas offer learners career education and opportunities to reflect on and integrate their personal, family, school, and community experiences to facilitate lifestyle and career choices.

All students need learning experiences that help them to understand themselves and to co-operate, negotiate, and build strong relationships with others. Experiences that help students develop entrepreneurial spirit and initiative, respond to opportunities to participate in their community, and be flexible in their outlook are important components of the public school program.

In addition, the learning environment and learning experiences must help students to acquire the knowledge, skills, and attitudes needed to lead healthy and active lives. A healthy, active lifestyle includes a commitment to lifelong learning and includes a commitment to positive lifestyle choices. Active, healthy living pursuits lead to an enriched use of leisure time and recognition of the importance and benefits of personal physical fitness.

The public school program provides opportunities for learners to discuss and express their own ideas and feelings, question and clarify their own values and beliefs, and examine ethical issues from critical perspectives. Students need learning experiences that enable them to gain an understanding of and commitment to the principles of fairness and equity. The public school program offers opportunities for students to focus on these issues so they may deal with others in a respectful way.

Problem Solving

In all subject areas, students demonstrate the important techniques of problem solving as they try to identify, describe, and reformulate problems from a variety of different perspectives; as they express their tentative ideas to others; as they explore, generate, and develop ideas; and as they listen and respond to the ideas of others, reflecting critically on the methods chosen and learning from mistakes as well as successes.

Students demonstrate the important techniques of problem solving as they show curiosity and open-mindedness, ask for explanations, make generalizations and supply specific evidence, question their own assumptions and those of others, read critically, and evaluate ideas and examples.

Technological Competence

In the public school program, technological competence involves an understanding of the interrelation of technology, society, and the environment and the ability to use technology to manage information.

All subjects help students to understand how technology shapes and is shaped by society and to become aware of the risks and benefits that result from technological development. Students also theorize about how technological problem-solving strategies can be used to take advantage of opportunities for innovation.

In all subjects, students write and manipulate their writing using word processing; in many subjects, students access and manage data in databases and spreadsheets and use information networks.

Students who face academic or physical challenges also explore technology as a facilitative tool.

Curriculum Document

The Atlantic Canada Framework for Essential Graduation Learnings in Schools (c1994)

School Programs

School Programs

Principles of Learning

The public school program is based on principles of learning that teachers and administrators should use as the basis of the experiences they plan for their students. These principles include the following:

1. Learning is a process of actively constructing knowledge.

Therefore, teachers and administrators have a responsibility to

- create environments and plan experiences that foster investigating, questioning, predicting, exploring, collecting, educational play, and communicating
- engage learners in experiences that encourage their personal construction of knowledge, for example, hands-on, minds-on science and math; drama; creative movement; artistic representation; writing and talking to learn
- provide learners with experiences that actively involve them and are personally meaningful

2. Students construct knowledge and make it meaningful in terms of their prior knowledge and experiences.

Therefore, teachers and administrators have a responsibility to

- find out what students already know and can do
- create learning environments and plan experiences that build on learners' prior knowledge
- ensure that learners are able to see themselves reflected in the learning materials used in the school
- recognize, value, and use the great diversity of experiences and information students bring to school
- provide learning opportunities that respect and support students' racial, cultural, and social identity
- ensure that students are invited or challenged to build on prior knowledge, integrating new understandings with existing understandings

3. Learning is enhanced when it takes place in a social and collaborative environment.

Therefore, teachers and administrators have a responsibility to

- ensure that talk, group work, and collaborative ventures are central to class activities
- see that learners have frequent opportunities to learn from and with others
- structure opportunities for learners to engage in diverse social interactions with peers and adults
- help students to see themselves as members of a community of learners

4. Students need to continue to view learning as an integrated whole.

Therefore, teachers and administrators have a responsibility to

- plan opportunities to help students make connections across the curriculum and with the world outside and structure activities that require students to reflect on those connections
- invite students to apply strategies from across the curriculum to solve problems in real situations

5. Learners must see themselves as capable and successful.

Therefore, teachers and administrators have a responsibility to
- provide activities, resources, and challenges that are developmentally appropriate to the learner
- communicate high expectations for achievement to all students
- encourage risk-taking in learning
- ensure that all students experience genuine success on a regular basis
- value experimentation and treat approximation as signs of growth
- provide frequent opportunities for students to reflect on and describe what they know and can do
- provide learning experiences and resources that reflect the diversity of the local and global community
- provide learning opportunities that develop self- esteem

6. Learners have different ways of knowing and representing knowledge.

Therefore, teachers and administrators have a responsibility to
- recognize each learner's preferred ways of constructing meaning and provide opportunities for exploring alternative ways
- plan a wide variety of open-ended experiences and assessment strategies
- recognize, acknowledge, and build on students' diverse ways of knowing and representing their knowledge
- structure frequent opportunities for students to use various art forms—music, drama, visual arts, dance, movement, crafts—as a means of exploring, formulating, and expressing ideas

7. Reflection is an integral part of learning.

Therefore, teachers and administrators have a responsibility to
- challenge their beliefs and their practices based on continuous reflection
- encourage students to reflect on their learning processes and experiences
- encourage students to acknowledge and articulate their learnings
- help students use their reflections to understand themselves as learners, make connections with other learnings, and proceed with learning

The Learning Outcomes Framework

The learning outcomes framework consists of a series of curriculum outcomes statements describing what knowledge, skills, and attitudes students are expected to demonstrate as a result of their cumulative learning experiences in the primary-graduation continuum.

General curriculum outcomes statements identify what students are expected to know, be able to do, and value upon completion of study in a curriculum area. General curriculum outcomes statements provide the organizational structure for other learning outcomes statements and reflect the "big ideas" in that subject area.

Key-stage curriculum outcomes statements identify what students are expected to know and be able to do by the end of grades 3, 6, 9, and 12 as a result of their cumulative learning experiences in a curriculum area.

Specific curriculum outcomes statements identify what students are expected to know and be able to do at the end of a particular grade level or a particular course. Curriculum outcomes for most subject areas are described in foundation documents and in one or more curriculum guides. The Foundation documents articulate general curriculum outcomes and key-stage curriculum outcomes. Curriculum guides provide specific curriculum

outcomes for each grade level, suggestions for assessment and instructional strategies, and information on related resources.

Teachers and administrators are expected to refer to the outcomes framework to design learning environments and experiences that reflect the principles of learning and the diverse needs and interests of the students.

Using the learning outcomes framework will help teachers design integrated learning experiences. Many of the curriculum outcomes of various subject areas overlap and may be achieved most effectively when subjects are integrated. The department encourages teachers to seek opportunities for interdisciplinary experiences whenever it is meaningful to do so. It is through such experiences that students come to see how various areas of learning are interrelated. Administrators should provide leadership in establishing organizational and scheduling patterns for instruction that facilitate natural interrelating of subject areas.

Learning outcomes frameworks documents for grades primary–12 can be downloaded from the Document Depot on the Department website at http://ednet.ns.ca.

Resource Programming and Services

The programming and services provided by resource teachers are intended to assist students experiencing learning difficulties in achieving the outcomes of the Public School Programs curriculum or, in the case of students with an Individual Program Plan (IPP), their individualized outcomes. The collaboration that is critical to ensuring the essential relationship between learning outcomes and support is facilitated through the participation of resource and classroom teachers and other team members in the program planning process as outlined in *Special Education Policy* and in *Supporting Student Success: Resource Programming and Services*.

Within the context to this process, resource teachers have a core role that includes

- sharing of knowledge and expertise regarding special needs
- assisting in research, selection, and/or development of materials and resources appropriate to the needs of the individual learner
- contributing to the assessment of the student by helping to ascertain how the student learns
- sharing of pertinent informal and formal assessment information for the purpose of program planning
- assisting in the selection and adaptation of instructional strategies to meet student needs
- collaborating with classroom teachers, other involved professionals, and parents/guardians regarding the preparation of referrals and the development, implementation, and evaluation of programming to meet the specific needs of individual students
- providing direct services to students in class and/or in a resource setting
- assisting in transition planning for students with special needs

The role played by resource teachers requires specific and enhanced competencies in the following areas:

- knowledge and application of special education policy and related documents at the provincial and school board levels
- knowledge and understanding of the characteristics of learners
- skills and strategies in assessment, evaluation, and reporting specific to students with special needs
- knowledge and application of instructional content and practice
- skill in communicating and working in collaborative partnerships
- co-teaching and teamwork

Specific competencies within each of these areas are detailed in the Department of Education and Early Childhood Development document *Supporting Student Success: Resource Programming and Services* (2002).

Programming for Students with Special Needs

Adaptations and Individual Program Plans (IPPs)

Instructional strategies, materials, and resources must be adapted to meet the diverse needs and varying rates and patterns of learning of all students from elementary through senior high school.

The *Special Education Policy* elaborates on adaptations:

> Teaching practice necessarily includes the use of a variety of differentiated teaching strategies to enable students to meet or to extend their learning beyond the designated outcomes. The manipulation of additional variables such as time, classroom organization, presentation or instructional strategies, and assessment techniques will be implemented to meet diverse student needs. However, specific individualized adaptations to meet student needs may be necessary to enable a student to meet the public school program outcomes. Adaptations are defined as strategies and/or resources to accommodate the learning needs of an individual student. Adaptations are required when a student demonstrates a need for specific strategies and/or resources to accommodate learning needs. These strategies and/or resources are planned, implemented, and evaluated to enable a student to achieve the public school program curriculum outcomes or to enable a student to meet additional public school program curriculum outcomes when the student requires enrichment. Adaptations, strategies, and/or resources are documented in the student's cumulative record folder.
>
> When the program planning team has determined that adaptations are not sufficient to address student needs and that the outcomes of the provincially approved curriculum must be changed, or additional outcomes need to be developed to meet the needs of the student, the program planning team is responsible for developing an individual program plan. Individual program plans should be developed in the context of the curriculum outcome areas of the Public School Programs (PSP). The PSP outlines compulsory and elective program components for all students. These will need to be addressed for students who have IPPs in one or more subject areas. Some students may require a combination of adaptations and an IPP. For example, a student may require adaptations in language arts and an IPP in mathematics. For students who have special needs in non-academic areas such as behaviour or social development or life skills development, the individual program plan should detail the outcomes involved and the supports and services needed to enable the student to reach these outcomes. In some instances, a student may have individualized outcomes which are developed to address specific challenges in life skills and/or personal development. For students with IPPs at the secondary level, the Nova Scotia Department of Education and Early Childhood Development course code list provides a listing of course codes which can be used for credit designation.
>
> Administrators should make every reasonable effort to ensure that individual students who display outstanding academic, musical, artistic, linguistic, or physical abilities are given opportunities to develop these abilities. The needs of most gifted students can be met in the regular classroom; however, individual program planning may be necessary to enable students to extend learning beyond designated outcomes. (*Special Education Policy*, Policy 2.6; *Gifted Education and Talent Development*, 2010)

Students who receive services from the Atlantic Provinces Special Education Authority (APSEA) may also have an APSEA Service Plan that outlines the extended core curriculum outcomes specific to the student's sensory impairment (e.g., Braille instruction, audition, speech).

Note: High school courses with an IPP code approved by the school board are recognized as credit courses and count towards a High School Graduation Diploma.

Parental Involvement

Parents/guardians have a right to be involved in and informed about their children's educational programs. Parents/guardians have extensive knowledge of and experience with the special needs of their children. As the primary advocates for their children, they have an obligation to take an active role in sharing this knowledge with the school. Their involvement in program planning can be invaluable in meeting individual needs.

Each school is responsible for involving parents/guardians in and informing them of decisions regarding the assessments designed for their children. Written parental consent is required for any formal individual assessment carried out by employees of the board or persons/agencies to whom the student has been referred. (*Special Education Policy*, Policies 2.4, 2.5, and 3.1)

Funding

In addition to general formula funding, the Department of Education and Early Childhood Development provides grants to each school board to assist with the costs of programming and services for students with special needs. The funds provided through the Special Education Grant must be used to supplement the cost of providing programs and services to students requiring supports in addition to those a classroom teacher supplies. (See *Special Education Policy*, Policy 1.3.)

Students with Sensory Impairments

Under the *Atlantic Provinces Special Education Authority Act* (2011), the responsibility for identifying students with sensory impairments remains with the parents, who must notify the superintendent of schools. Superintendents should report to the regional education officer, as promptly as possible, the names of children who are in need of special instruction in public school because of a sensory impairment.

School board staff will arrange for an educational assessment of the student. The supervisor of student services will notify the Atlantic Provinces Special Education Authority (APSEA). For practical reasons, notification should go directly to the appropriate resource centre: the APSEA Resource Centre for the Visually Impaired or the APSEA Resource Centre for the Hearing Handicapped.

Supplementary Documents

For a comprehensive list of pertinent documents, the Student Services website at www.studentservices.ednet.ns.ca should be accessed.

Elementary Years: Grades Primary–6

Compulsory and Elective Program Components

To ensure consistency in educational opportunities for all children of the province, elementary schools must include, for all children in each year's program, language arts (listening, talking, reading, viewing, writing, and other ways of representing), mathematics, visual arts, health, physical education, music, science, and social studies.

In Acadian and Francophone schools, English must be offered beginning at grade 3. In English schools, core French (or Mi'kmaw or Gaelic) must be offered beginning at grade 4. School boards may request approval to offer immersion and integrated French programs in the second official language of the students after consulting with the Department of Education and Early Childhood Development.

Where offered, Gaelic as a second language and Mi'kmaw as a second language may be introduced at grade 3.

Guidelines for Time Allotment

Ministerial Education Act Regulations require a minimum of 225 minutes of teaching per day for grades primary–2 and a minimum of 285 minutes for grades 3–6.

Principals and teachers are responsible for ensuring that a reasonable and productive balance of time exists among all subject areas to enable students to achieve designated curriculum outcomes. In each curriculum area, some outcomes and clusters of outcomes require discrete allotment of instructional time, while others may be integrated effectively with those of other subject areas. Integrated curriculum units reflect and illuminate connections among the outcomes in various subject areas.

Within this framework, principals are responsible for ensuring that time allotment for literacy and mathematics reflect the following requirements:

English Program

- For English language arts grades primary–2, a minimum of 90 minutes every day including *Active Reading Hour.*
- For English language arts grade 3, a minimum of 115 minutes every day including *Active Reading Hour.*
- For English language arts grades 4–6, a minimum of 90 minutes every day.
- In grades 4–6, one or more blocks of *Learn to Read / Read to Learn Time* in English language arts and other subject areas totalling 60 minutes every day.
- For mathematics grades primary–2, a minimum of 45 minutes every day including 5 minutes of Mental Mathematics and Estimation in grades 1 and 2.
- For mathematics grades 3–6, a minimum of 60 minutes every day including 5 minutes of Mental Mathematics and Estimation.

Immersion Program

- For French language arts grades primary–2, a minimum of 90 minutes every day including *l'heure de lecture active.*
- For French language arts grade 3, a minimum of 75–80 minutes every day including *l'heure de lecture active.*

- For English language arts grades 3–6, a minimum of 45–50 minutes every day.
- For French language arts grades 4–6, a minimum of 75–80 minutes every day.
- In grades 4–6, one or more blocks of time for *Apprendre lire / Lire pour apprendre* in language arts and other subject areas totalling 60 minutes every day.
- For mathematics grades primary–2, a minimum of 45 minutes every day including 5 minutes of Mental Mathematics and Estimation in grades 1 and 2.
- For mathematics grades 3–6, a minimum of 60 minutes every day including 5 minutes of Mental Mathematics and Estimation.

The Learning Environment

With the principles of learning in mind, teachers and administrators must plan a supportive environment for their students, interacting with them and guiding, facilitating, directing, and extending their learning.

Features of this supportive learning environment include the following:

- A learning culture oriented to high expectations, academic achievement, and success for all students.
- Opportunities for all students to develop confidence and self-worth.
- Instructional contexts that reflect the principles of learning and the developmental nature of children's learning.
- Respect for racial, ethnic, social, and cultural diversity and sensitivity to differences in gender, ability, values, and lifestyles.
- Effective use of school space and appropriate use of time to accommodate a variety of learning situations, such as whole-class discussions, small-group work, learning centres, individual work, and construction and movement activities.
- A safe and healthy environment.
- Access to information technology, art materials, science and mathematics tools and manipulatives, construction materials, and craft materials.

Essential Learning Experiences

Because children are in many ways alike and in many ways different, schools must take the responsibility of providing varied learning experiences to meet the children's diverse needs and to allow for choices within a structured framework. Program decisions must reflect a knowledge of how children learn and how the characteristics of learners change with children's growth and development.

Throughout the early elementary years, structured or focused play is an important way in which children learn. Such structured play supports, sustains, extends, enhances, and enriches the child's learning. Through play, children have valuable opportunities to interact with others in a variety of social settings and to use language meaningfully as they explore, plan, imagine, experiment, manipulate, dramatize, negotiate rules, and pose and solve problems.

In later elementary years, children are growing in their ability to deal with abstract concepts, to generalize from their experiences, to learn from texts, and to work independently for longer periods of time. Play, the active engagement with events, ideas, materials, and other people, continues to provide important learning experiences but takes on new forms.

The following is a list of experiences considered essential to the elementary program. The forms of these experiences will vary as the children move through the elementary years, but the intent of each experience persists throughout.

On a daily basis, all students should
- explore, experiment, and make approximations
- make choices and reflect upon the decisions they make
- work in a variety of groups
- use many different communication modes (e.g., writing, drama, sculpture, dance, talk, and music)
- learn through play and games
- manipulate a wide variety of materials across all subject areas
- reflect on and articulate what and how they have learned
- describe their efforts and accomplishments

The First Year in School

The first year of public school education guides children through the transition from home to school and provides a foundation for independent, lifelong learning. What and how children learn in their first year in school will have a major impact on successful learning experiences in school, on their personal development, and on their future participation in society. The primary program should
- nurture children as individuals with diverse needs and from diverse backgrounds
- extend children's preschool learning
- foster each child's intellectual, artistic, cultural, social, emotional, and physical development
- provide experiences and challenges with early literacy and early mathematics
- promote a positive attitude toward learning
- ensure a confident and successful start in school learning

Since each child has a unique rate of development and needs and abilities that are different from those of other children, the program must be developmentally appropriate for each child. Such developmentally appropriate learning activities and materials would involve children, for example, in using structured and self-initiated play to learn.

The primary program offers learners adequate opportunity for both unstructured and structured play. At play, children are often highly motivated: they concentrate, persevere, and make decisions. In an activity-centred environment, children play with each other and with a wide range of carefully selected materials. An effective program invites spontaneous, constructive, and imaginative play.

Children coming to their first year in school bring a rich variety of learning experiences. They have been learning in a number of environments: in their homes, in preschool programs, in daycare centres, and in community activities. Their early childhood years have been characterized by rapid and intense learning. These young children thrive on relevant, challenging experiences. By offering interrelated experiences, the primary program invites children to learn about themselves and about the physical and social world. The program invites children to explore ideas, relationships, and knowledge through language, the arts, technology, movement, and play.

The primary program must recognize and be responsive to each child's prior knowledge, skills, attitudes, learning pace, personal traits, interests, and preferred learning style. Learning activities must be flexible enough to be adapted to meet individual as well as group needs, interests, and developmental levels. It is crucial that the range of experiences in the primary program meet children's varying needs and provide both support and challenge for all learners.

Primary Registration and Preschool Orientation

The Department of Education and Early Childhood Development recommends that all children entering school for the first time in the primary grade be part of a planned program of registration and preschool orientation in the school they will be attending.

The grade primary teachers, parents, and school administrators should all play major roles in this activity.

Registration

To enter school, children must be five years old on or before December 31. Proof of the child's age is required for registration. An update of health records may take place at this time. Parents will be expected to complete appropriate school district forms.

Orientation

The purpose of preschool orientation is to help the children begin the transition between the home and the school so they may develop confidence in their personal value and begin to acquire a positive attitude toward school. Preschool orientation for the children might include taking a tour of the school, meeting school personnel, and participating with the primary teacher and other children in exploratory activities, such as playing in an unstructured context, cutting, pasting, building with blocks and boxes, painting, playing with puppets, acting out roles, viewing picture books, telling stories, or listening to a story read by the teacher.

For the parents, preschool orientation should provide an opportunity to communicate with school personnel. Parents should be invited to inform teachers and administrators about their children, to express their hopes and concerns for future schooling, and to ask questions. Specific information on special learning or medical needs should be brought to the staff's attention.

Preschool orientation should be planned to cause the least disruption to the instruction of the current primary classes.

Screening should be limited to the physical assessment of such areas as vision and hearing. It should not include readiness testing or testing for levels of cognitive development—teachers will have continuous opportunities to gain a knowledge of the emotional, social, physical, and intellectual needs of each child by observing him or her daily in the classroom and schoolyard. They can then base their program planning on their daily observations.

Succeeding in Reading: An Early Literacy Support Framework

School boards offer Succeeding in Reading: An Early Literacy Support Framework (2011) for English and Réussite en lecture for French Immersion students in grades Primary to 3 to support their development in the areas of reading, writing, and oral language.

Succeeding in Reading supports the literacy development of students in grades primary and 1 who have demonstrated difficulties as readers and writers. Students identified through a variety of classroom-based assessments receive focused support. Early literacy teachers work together with classroom teachers to provide daily support to groups of one to three students, as determined by the literacy and learning needs of the students.

Succeeding in Reading is a support model that builds on what students know to identify solid starting points for continued literacy development. Instructional decisions are in response to individual student progress as noted through ongoing assessment. Support is designated to grade 1 students beginning early in the school year for 30–45 minutes per day and later in the school year to grade primary students for 30 minutes a day. Boards and schools schedule support according to the grade level(s) of most need. Students will continue to be supported through Succeeding in Reading to ensure that a student's literacy development reaches standards consistent with the English language arts curriculum.

Succeeding in Reading is grounded in the principles of a balanced literacy program and uses effective assessment and instructional practices.

Junior High / Middle Years: Grades 7–9

Compulsory and Elective Program Components

Each school board is required to provide in grades 7–9 inclusive, in each school under its jurisdiction, instruction in the prescribed courses in English, French, healthy living, science, mathematics, social studies, physical education, and two of technology education, family studies, or arts education.

Each school is also required to provide programming and services for students with special needs.

Grades 7, 8, and 9

The following subjects are compulsory at each grade level:

- French (or Mi'kmaw or Gaelic)
- Healthy Living
- Language Arts
- Mathematics
- Physical Education
- Science
- Social Studies

In addition, students will take at least one of these electives at each grade level:

- Band Instruments
- Explore Music
- Family Studies
- Technology Education
- Visual Arts

Exploratory Options

Exploratory options (sometimes called mini-courses) may be provided to extend the curriculum and provide enrichment opportunities for young adolescents. Exploratory options may be designed as a component of compulsory or elective courses but may not replace program requirements noted above.

Exploratory options should contribute to the students' achievement of specific curriculum outcomes in one or more subject areas and should reflect the developmental needs of the young adolescent.

Exploratories may be offered for short periods of time during the year.

The Learning Environment

The junior high school environment should be designed to support the unique physical, intellectual, emotional, and social changes that characterize adolescence. Teachers and administrators must plan a positive environment for all learners, one that supports adolescent growth and socialization.

Features of a supportive environment at the junior high level include

- transition planning to and from junior high
- a learning culture oriented to high expectations, academic achievement, and success for all students
- opportunities for all students to develop confidence and a sense of self-worth
- a climate where experimentation, initiative, and risk taking in learning are valued and errors are viewed as opportunities for learning and teaching
- effective use of school space and time to accommodate a variety of learning situations
- instructional contexts that reflect an understanding of adolescents' developmental growth, of differences and commonalities in that growth, and of students' diverse concerns, emotions, interests, values, and motivation
- collaborative and co-operative learning contexts that invite social interaction
- flexibility in classroom organization and methods of instruction and assessment to accommodate individual learning styles
- organizational structures to promote a sense of community
- respect for racial, ethnic, social, and cultural diversity and sensitivity to differences in gender, ability, values, and lifestyles
- recognition of and respect for adolescent cultures
- opportunities for students to integrate and interpret their society and cultures within the school environment
- a secure and healthy environment where students are safe from physical and psychological harassment
- an environment that upholds the rights of each student and requires students to respect the rights of others
- models of democratic approaches to problem solving
- support systems for students who are encountering difficulty

Essential Learning Experiences

Schools have a responsibility to provide a range of experiences to meet the diverse learning needs of junior high students. Program decisions must reflect a knowledge of

- the principles of learning
- curriculum outcomes
- ways to construct appropriate learning experiences that enable students to achieve those outcomes
- the diversity of adolescent developmental patterns
- the diversity of students' abilities, interests, and maturity
- the interaction among teaching styles, instructional strategies, and learning styles

The junior high program must provide opportunities for students to

- access a range of resources, including technology, as tools for learning
- see strong connections among the school and home, community, and workplace
- develop and use strategies for organizing and planning their learning
- gain greater independence by taking increasing responsibility for their own learning
- become increasingly independent users of learning resources to meet self-directed goals and needs
- engage in learning experiences that include both hands-on activities and more abstract ones
- become aware of and use opportunities for learning that exist outside the school

- enhance their understanding of how various areas of learning are interrelated
- engage in diverse interactions with adults and their peers in curriculum-based contexts that foster the development of interpersonal skills and social maturation

Students should have multiple opportunities to

- meet the expected learning outcomes
- explore rich and stimulating ideas
- engage their emotions, imaginations, and intellects
- engage actively in a variety of purposeful and meaningful learning experiences
- articulate their own learning needs
- work independently and use self-directed learning approaches
- learn with and from one another in a variety of groups
- use language across the curriculum to facilitate learning and to develop their literacy skills
- relate new learning to their prior knowledge and experiences
- make interdisciplinary connections
- make choices within a structured framework and reflect upon the appropriateness of those choices
- develop a work ethic and further understanding of career opportunities and requirements
- build self-esteem in meaningful ways
- explore multiple pathways to learning as they work toward achieving the expected learning outcomes
- reflect on what and how they have learned

Guidelines for Time Allotments

It is the school's responsibility to design schedules appropriate for all students. Principals are responsible for monitoring schedules to ensure an appropriate and productive balance of instructional time among the subject areas.

School schedules and time allotments for each course should allow for

- a focus on student learning and achievement of expected learning outcomes
- the learning needs of individual students
- opportunities for meaningful integration of curricula
- the particular needs of the school community

The schedule for grades 7–9 should provide teachers and students with blocks of uninterrupted instructional time long enough to engage students in active and interactive learning and to provide students with every possible opportunity to be successful.

Literacy and mathematics have been identified as curriculum priorities, and the schedule should provide sufficient time and opportunity each day for learning experiences focused on prescribed curriculum outcomes for mathematics and language arts. These are important considerations in examining scheduling options and designing interdisciplinary units and integrated instruction.

Sixty (60) minutes every day is a *minimum* requirement in grade 7 and grade 8 for instructional time allotted to mathematics and to English language arts in the English program. Sixty (60) minutes every day is a *minimum* requirement for instructional time allotted in grade 7 and grade 8 to mathematics and to French language arts in the immersion program.

The learning outcomes framework for curriculum allows principals and teachers flexibility in allotting time for the effective delivery of the junior high program. In designing class timetables and teachers' schedules, principals and teachers might consider ways to

- ensure that the program provides opportunities for all students to achieve curriculum outcomes specific to each subject area
- facilitate integrated, interdisciplinary program organization based on the natural affinities among subject areas and the connections among the expected learning outcomes of junior high courses
- provide class periods of unequal time in a flexibly scheduled day, allowing students extended blocks of time to pursue learning opportunities and expand learning experiences
- provide additional time in courses when it is needed to enable students to achieve expected outcomes
- facilitate collaborative planning and co-ordination of instruction to meet students' needs and make optimal use of teacher expertise

The manipulation of instructional variables, such as time, classroom organization, teaching techniques, and assessment strategies, may be necessary to enable students to meet or extend their learning beyond the expected learning outcomes. When manipulating instructional variables is not sufficient to address student needs in the context of the prescribed curriculum, an individual program plan (IPP) should be developed. An IPP may include any or all of the following:

- Deletion of outcomes.
- Addition of new outcomes.
- Same general curriculum outcome but significantly different specific outcome level.

For further information on adaptations and IPPs, refer to "Programming for Students with Special Needs" on page 14.

Senior High Years: Grades 10–12

A High School Graduation Diploma is awarded to students who have successfully completed the required subjects and electives as described below.

Each school should offer to all students patterns of courses appropriate to their individual needs. The counselling and teaching staffs should help each student select courses that meet the entry requirements of the post-secondary education or employment choice of the student and that help him or her develop personal interests and a broader range of abilities.

Courses at the grade 10 level are designed to provide all learners with access to a strong foundation of common educational experiences. These courses engage students in a variety of groupings and interactions as contexts for learning, and offer a range of experiences that provide both challenge and support. To prepare students for a range of post-secondary destinations, grade 11 and grade 12 programs include course offerings that are increasingly specialized; as such, these grades are referred to as the specialization years.

Courses are identified by course title, grade level (10, 11, or 12); credit value (one credit or ½ credit); and credit type (academic, advanced, graduation, or open). A number of courses have a modular design: learning modules, each involving 25–30 hours of scheduled time, may be grouped as a full credit or a half credit.

The Learning Environment

A supportive, structured learning environment in senior high is

- challenging, engaging, and relevant
- participatory, interactive, and collaborative
- inclusive

- personalized, safe, and positive
- responsive to students' diverse learning styles
- open to experimentation and analysis

The environment should promote

- active learning throughout the school
- lifelong learning
- core beliefs and values
- respect and caring among staff, between staff and students, and among students
- a strong sense of community
- teamwork, collaborative planning, and shared decision making
- responsibility and student involvement in decision making at the classroom and school levels
- worthwhile student-initiated activities
- peer support systems
- open and diversified co-curricular and extra-curricular activities
- full participation in the life and work of the school by the entire learning community
- strong and productive communication and relationships with students' families and with community agencies and organizations as partners in the students' education
- values and practices for active, healthy living
- respect for the natural environment

Essential Learning Experiences

Schools have a responsibility to provide a range of experiences to meet the diverse learning needs of senior high students. The senior high program must provide opportunities for students to

- think critically and engage in disciplined inquiry
- develop as self-directed learners
- develop the generic skills and attitudes that are transferable to the work world
- make connections between their learning in school and a variety of career options
- experience success that represents solid achievement and genuine accomplishment
- complete substantial and meaningful academic work
- generate solutions to genuine problems

Students should have multiple opportunities to

- engage in authentic and relevant learning situations that have enduring value beyond the classroom
- interact in environments that affirm and promote diversity
- make and reflect on connections across the curriculum
- connect their learning to life outside the school
- develop and learn through their multiple intelligences and preferred learning styles
- use technology in a variety of ways
- use visual tools as pathways to learning and as avenues for representing knowledge
- assess their own learning
- reflect on and articulate what and how they have learned
- work in a variety of grouping arrangements
- make informed decisions
- demonstrate their understanding in a variety of ways

Guidelines for Time Allotments

Scheduling for grades 10–12 must provide opportunity for a minimum of 110 hours instructional time per credit and a minimum of 55 hours per half credit.

Time to Learn Strategy: Instructional Time and Semestering (2002) (found at www.ednet.ns.ca/pdfdocs/time_to_learn/semestering.pdf) includes recommendations related to allotment of instructional time and to scheduling practices. In planning for implementation, boards and their schools should consider organizational models designed to

- provide opportunities each semester for all senior high students to earn credits toward graduation
- offer year-long course options in some subject areas, for example, English language arts, French language arts, or mathematics, to meet students' learning needs
- provide additional instructional time to meet the needs of students who require increased support in literacy and/or mathematics

The instructional program for grades 10–12 should include, for each course, direction and support for home study to make provision for school days lost as a result of storms.

High School Credits

Definition of a Credit

A credit is awarded in recognition of the successful completion of an approved course that would normally be completed in a minimum of 110 hours of scheduled time.

In courses defined through curriculum outcomes statements, students are expected to have demonstrated achievement of the outcomes at an acceptable level of proficiency.

Credit Types

Each course is categorized as one of the following credit types:

Academic—Academic courses are designed for students who expect to enter college, university, or other post-secondary institutions.

Advanced—Advanced courses are designed to meet the needs of students who have demonstrated an exceptional degree of academic ability or achievement.

Graduation—Graduation courses are designed for students who wish to earn a graduation diploma with a view to proceeding to employment or some selected area of post-secondary study.

Open—Although none of the open courses are designed to meet the specific entrance requirements of any post-secondary institution, individual courses may meet entrance requirements of some institutions.

Credits for a Graduation Diploma

Note: Individual Program Plans (IPPs) approved by the school board for students with special needs and locally developed courses approved by the department are recognized as credit courses and count toward a High School Graduation Diploma.

Although the minimum number of credits required for graduation is 18, it is highly recommended that schools develop schedules that allow students to complete 20, 21, or even 24 credits. Schedules should be designed to meet student needs, interests, and abilities.

Students require a minimum of 18 credits to graduate. No more than 7 of the 18 credits may be for grade 10 courses, and at least 5 must be for grade 12 courses. The following are compulsory credits for graduation.

Language, Communication, and Expression

- 3 English language arts, one at each grade level, or for students in Acadian or Francophone schools and for students in French immersion, 3 French language arts, one at each grade level
- 1 arts: dance, drama, music, or visual arts

Science, Mathematics, and Technology

- 2 mathematics
- 2 science: one from biology, chemistry, Science 10, or physics, and one other approved science course
- 2 others from mathematics, science, and/or technology: eligible courses include Audio Recording and Production 12; Business Technology 11 and 12; Communications Technology 11 and 12; Computer Programming 12; Construction Technology 10; Construction Trades 11; Design 11; Electrotechnologies 11; Energy, Power, and Transportation 11; Film and Video Production 12; Food Technology 10; Exploring Technology 10; Housing and Design 12; Multimedia 12; Production Technology 11 and 12; Skilled Trades 10; Skilled Trades Co-op 12; Textile Production 10; Textile Technology 12; and Transportation Trades 11.

Personal Development and Society

- 1 Physical Education: eligible credits include Physical Education 10, Physical Education 11, Dance 11, Fitness Leadership 11, Physically Active Living 11, Yoga 11, Physical Education 12, and Physical Education Leadership 12
- 1 Canadian History: African Canadian Studies 11; Canadian History 11/Histoire du Canada 11; Étude acadiennes 11; Gaelic Studies 11; and Mi'kmaq Studies 10
- 1 global studies: Global Geography, Advanced Global Geography, Global History, Advanced Global History, Global Politics, and Advanced Global Politics

Within the 18 course requirements for a graduation diploma, in most cases, no student may receive credit for two courses in the same specific subject area at the same grade level. There are a few exceptions: these include co-op courses, Canadian Literature, Global Geography, Global History, Global Politics, family studies, and technology-related courses.

Students enrolled in the Correspondence Studies Program or school board adult high school programs who are earning credits for the Nova Scotia High School Graduation Diploma require a minimum of 18 credits to graduate. No more than seven of the 18 credits may be for grade 10 courses, and at least five must be for grade 12 courses. Compulsory credits for the 2014 Nova Scotia High School Graduation Diploma will be

those listed above. These requirements will apply to any student who wishes to earn the 2014 Nova Scotia High School Graduation Diploma, regardless of the year in which the student registered in grade 10 for the first time.

Prerequisites for Courses and Programs

Certain courses normally require the successful completion of the previous year's course before the next year's work begins; however, prerequisites may sometimes be modified. For example, a school staff member, in consultation with the student and parents, may decide that a student who has not successfully completed a course is nevertheless capable of doing the following year's work. In such a situation, the student may enrol in the following year's course in that discipline. Credit, however, will not be given for the first course until it is successfully completed.

It is imperative that the school schedule accommodate students who need to take a first-year course or part of a first-year course while taking second-year courses. Similar provisions should be made for combinations of second- and third-year courses.

The following table lists high school credit courses for 2013–2014 with their grade level and credit type. Some multidisciplinary courses are eligible for credit toward **one**, but not both, of two graduation requirements. Multidisciplinary courses are listed in their primary discipline, with a reference only to the secondary discipline.

High School Credit Courses: 2013–2014

Courses	Grade 10	Grade 11	Grade 12
Arts Education			
1. Advanced Music		adv	adv
2. Advanced Visual Arts		adv	adv
3. Audio Recording and Production	See Technology Integration and ICT		
4. Cultural Industries (1 credit or ½ credit)		acad	
5. Dance		acad	
6. Drama	acad	acad	acad
7. Design (1 credit or ½ credit)	See Technology Education		
8. Film and Video Production (1 credit or ½ credit)	See Technology Integration and ICT		
9. Multimedia (1 credit or ½ credit)	See Technology Integration and ICT		
10. Music	acad	acad	acad
11. Visual Arts	acad	acad	acad
Business Education			
1. Accounting		acad	acad
2. Business Management			acad
3. Business Management			open
4. Business Personnel Development			open
5. Business Technology (1 credit or ½ credit)		acad	acad
English Language Arts			
1. Advanced English		adv	adv
2. African Heritage			acad
3. Canadian Literature			acad
4. English	acad	acad	acad

Courses	Grade 10	Grade 11	Grade 12
5. English Plus (2 credits)	acad		
6. English/Communications		grad	grad
7. Technical Reading and Writing (½ credit)		acad	
Entrepreneurship			
1. Entrepreneurship			acad
Family Studies			
1. Canadian Families			open
2. Child Studies		open	
3. Housing and Design			acad
4. International Foods (½ credit)	open		
5. Food Preparation and Service (½ credit)	open		
6. Food for Healthy Living (½ credit)	open		
7. Food Studies and Hospitality			open
8. Food Technology (½ credit)	open		
9. Textile Production (½ credit)	open		
10. Textile Technology			open
French Second Language			
1. Core French	acad	acad	acad
2. Expérience culturelle			acad
3. Français arts lanagiers immersion	acad	acad	acad
4. Français intégré	acad	acad	acad
Gaelic Language			
1. Gaelic	acad	acad	acad
International Baccalaureate			
1. IB Biology (0 credits)		adv	
2. IB Biology SL (1 ½ credits)			adv
3. IB Biology HL (2 ½ credits)			adv
4. IB Computer Science (0 credits)		adv	
5. IB Computer Science SL (1 ½ credits)			adv
6. IB Computer Science HL (2 ½ credits)			adv
7. IB Chemistry (0 credits)		adv	
8. IB Chemistry SL (1 ½ credits)			adv
9. IB Chemistry HL (2 ½ credits)			adv
10. IB Economics (0 credits)		adv	
11. IB Economics SL (1 ½ credits)			adv
12. IB Economics HL (2 ½ credits)			adv
13. IB English Literature (0 credits)		adv	
14. IB English Literature SL (1 ½ credits)			adv
15. IB English Literature HL (2 ½ credits)			adv
16. IB Environmental Systems (0 credits)		adv	
17. IB Environmental Systems SL (1 ½ credits)			adv
18. IB Extended Essay (½ credit)			adv
19. IB Film (0 credits)		adv	
20. IB Film SL (1 ½ credits)			adv

Courses	Grade 10	Grade 11	Grade 12
21. IB French Ab Initio (0 credits)		adv	
22. IB French Ab Initio SL (1 ½ credits)			adv
23. IB French B (0 credits)		adv	
24. IB French B SL (1 ½ credits)			adv
25. IB French B HL (2 ½ credits)			adv
26. IB Geography (0 credits)		adv	
27. IB Geography SL (1 ½ credits)			adv
28. IB Geography HL (2 ½ credits)			adv
29. IB History (0 credits)		adv	
30. IB History SL (1 ½ credits)			adv
31. IB History HL (2 ½ credits)			adv
32. IB History of Americas HL (2 ½ credits)			adv
33. IB Information Technology in a Global Society (0 credits)		adv	
34. IB Information Technology in a Global Society SL (2 ½ credits)			adv
35. IB Math Studies (0 credits)		adv	
36. IB Math Studies SL (1 ½ credits)			adv
37. IB Mathematics (0 credits)		adv	
38. IB Mathematics SL (1 ½ credits)			adv
39. IB Mathematics HL (2 ½ credits)			adv
40. IB Music (0 credits)		adv	
41. IB Music SL (1 ½ credits)			adv
42. IB Music HL SR (2 ½ credits)			adv
43. IB Physics (0 credits)		adv	
44. IB Physics SL (1 ½ credits)			adv
45. IB Physics HL (2 ½ credits)			adv
46. IB Spanish Ab Initio (0 credits)		adv	
47. IB Spanish Ab Initio SL (1 ½ credits)			adv
48. IB Theatre Arts (0 credits)		adv	
49. IB Theatre Arts SL (1 ½ credits)			adv
50. IB Theatre Arts HL (2 ½ credits)			adv
51. IB Theory of Knowledge			adv
52. IB Visual Arts (0 credits)		adv	
53. IB Visual Arts SL (1 ½ credits)			adv
54. IB Visual Arts HL (2 ½ credits)			adv
Mathematics			
1. Advanced Mathematics		adv	adv
2. Calculus			adv
3. Math for the Workplace			grad
4. Mathematics	acad	acad	acad
5. Mathematics at Work	grad		
6. Mathematics Essentials	grad	grad	
7. Mathematics Foundations		grad	grad
8. Pre-Calculus Mathematics			adv

Courses	Grade 10	Grade 11	Grade 12
Other Languages			
1. German	acad	acad	acad
2. Latin	acad	acad	acad
3. Spanish	acad	acad	acad
Personal Development and Career Education			
1. Career Development (1 credit or ½ credit)	open	open	
2. Community-Based Learning (1 credit or ½ credit)	open		
3. Health and Human Services			acad
4. Health and Human Services			open
5. Learning Strategies	open	open	open
6. Life/Work Transitions (1 credit or ½ credit)	open		
7. Tourism (1 credit or ½ credit)		acad	acad
8. Workplace Health and Safety (½ credit)		open	
Physical Education			
1. Dance	See Arts Education		
2. Fitness Leadership		acad	
3. Physical Education	open	open	open
4. Physically Active Living		open	
5. Physical Education Leadership			acad
6. Yoga		acad	
Sciences			
1. Advanced Biology		adv	adv
2. Advanced Chemistry		adv	adv
3. Advanced Physics		adv	adv
4. Agriculture/Agrifood (1 credit or ½ credit)		acad	
5. Biology		acad	acad
6. Chemistry		acad	acad
7. Food Science			acad
8. Geology (1 credit or ½ credit)			acad
9. Oceans (1 credit or ½ credit)		acad	
10. Physics		acad	acad
11. Science (1 credit or ½ credit)	acad		
Skilled Trades			
1. Construction Trades		acad	
2. Manufacturing Trades		acad	
2. Skilled Trades	acad		
3. Skilled Trades (Co-op)			acad
4. Transportation Trades		acad	
Social Studies			
1. Advanced Global Geography			adv
2. Advanced Global History			adv
3. Advanced Global Politics			adv
4. African Canadian Studies		acad	
5. Canadian History		acad	

Courses	Grade 10	Grade 11	Grade 12
6. Economics		acad	acad
7. Gaelic Studies (1 credit or ½ credit)		acad	
8. Geography	acad	acad	acad
9. Geography of Canada		grad	
10. Geomatics			acad
11. Global Geography			acad
12. Global History			acad
13. Global Politics			acad
14. History	acad	acad	
15. Law			acad
16. Mi'kmaq Studies	acad		
17. Political Science			acad
18. Sociology			acad
19. Sociology			open
Technology Education			
1. Communications Technology		acad	acad
2. Construction Technology	open		
3. Design (1 credit or ½ credit)		acad	
4. Electrotechnologies (1 credit or ½ credit)		acad	
5. Energy, Power, and Transportation		open	
6. Exploring Technology	acad		
7. Production Technology		open	open
Technology Integration and ICT Courses			
1. Audio Recording and Production (1 credit or ½ credit)			acad
2. Business Technology (1 credit or ½ credit)	See Business Education		
3. Computer Programming (1 credit or ½ credit)			acad
4. Film and Video Production (1 credit or ½ credit)			acad
5. Food Preparation and Service (½ credit)	See Family Studies		
6. Food Technology (½ credit)	See Family Studies		
7. Housing and Design	See Family Studies		
8. Multimedia (1 credit or ½ credit)			acad
9. Textile Production (½ credit)	See Family Studies		
10. Textile Technology	See Family Studies		

Note: Many of the courses listed above are available in French for the immersion program.

French First Language Programs

Acadian and French Language Services

The Acadian and French Language Services Branch is responsible for French first language programs. These programs are designed to meet specific needs of students who are entitled to be schooled in their mother tongue, in accordance with Section 23 of the Canadian Charter of Rights and Freedoms.

French First Language programs are described in detail in *Programme des écoles publiques*, the French version of *Public School Programs*.

French Second Language Programs

French Second Language Program Services (Public Schools Branch) is responsible for the development of French second language programs. The aim of second language teaching is to develop the learner's ability to effectively communicate in French.

Nova Scotia offers four French second language programs:
- Core French (grades 4–12)
- Integrated French (grades 7–12), following Core French grades 4–6
- Early French Immersion (primary–grade 12)
- Late French Immersion (grades 7–12), following Core French, grades 4–6

Core French, Integrated French, and French Immersion programs are designed to accommodate all students.

French Second Language Programs are designed to enable all students to
- effectively communicate in French for a variety of purposes through a variety of ways and media
- demonstrate a better understanding of their own and others' cultural heritage and identity with particular emphasis on "French-speaking communities"
- demonstrate preparedness for further learning in French
- work, study, and solve problems both independently and in groups
- locate, evaluate, adapt, create, and share information using a variety of sources and technologies

To help students achieve these goals, all teaching in French second language programs must be in French.

Core French

In the Core French program, French is learned and taught in regularly scheduled instructional periods. School boards in Nova Scotia must offer Core French classes from grades 4 to 12. This program is compulsory for students in grades 4 to 9. Where offered, Mi'kmaq or Gaelic may fulfil this requirement.

Integrated French

School boards may offer an Integrated French program to those students in Anglophone schools who wish to develop a greater degree of competence in French. Integrated French begins in grade 7 and continues to grade 12. Students in this program in grades 7 and 8 take an integrated French language arts and social studies course. In grades 9 to 12, students take a French language arts course and one other subject in French. The French

language arts course is designed to support the language needs of students in the second subject area taught. The curriculum of this second course parallels that of the same course taught in the English program.

Integrated French Certificate

To be eligible for the Integrated French certificate, students must have been enrolled in an Integrated French program before entering high school and meet all the requirements of the certificate as outlined in the *Program Policy for French Second Language Programs* (June 1998).

French Immersion

School boards may offer a French immersion program. The immersion program is an alternate approach to learning French, Canada's other official language, within a structure that provides greater intensity for teaching and learning and focuses on literacy through the various disciplines taught in French. The goal of the program is to help students develop a high degree of proficiency in French. Subjects taught in French parallel those offered in the English program.

Early French Immersion

Early French Immersion begins in grade primary and continues to grade 12. Students in this program receive 85–100 percent instruction in French at the P–2 level, 70–80 percent instruction in French at the grades 4–6 level, and 70–75 percent instruction in French at the junior high level.

Late French Immersion

Late French Immersion begins in grade 7 and continues to grade 12. In each year of junior high, students take five courses in which the language of instruction is French. This constitutes 70–75 percent of instruction in French.

The courses offered in the early and late French immersion programs are described in French Second Language from the Program and Course Description section of this document.

French Immersion Certificate

To be eligible for the French immersion certificate, students must have been enrolled in an early or late French immersion program before entering high school and meet all the requirements of the certificate as outlined in the *Program Policy for French Second Language Programs* (June 1998).

Community-Based Education

Community-based education programs encourage the expansion of learning opportunities for elementary, junior high, and senior high school students by bringing the community into the school and by placing students in the community as part of their studies. Community-based education

- assists students in making informed decisions about their education and career plans and in acquiring relevant knowledge and skills required in today's society
- improves students' understanding of employment requirements and the links between the knowledge, skills, and attitudes they are acquiring in school and their future plans
- assists students to develop generic employability skills including fundamental, personal management, and teamwork skills; specific career, occupation, and job skills; and labour market knowledge and understanding

There are two categories of community-based education:

- *Co-operative Education:* one-half credit courses or full credit courses requiring long-term community/workplace placements
- *Short-term Placements:* community/workplace learning experiences, typically of 5–25 hours, designed as an integral part of a public school program or approved locally developed course

Co-operative Education

Co-operative education courses may be offered at grades 10, 11, and 12 either as full credits or half credits. Co-operative education courses may be developed as academic, advanced (grades 11 and 12 only), open, or graduation-type credit courses. Each of these may be counted as elective credits to fulfill graduation requirements. A co-operative education course has the status of a locally developed course and must be approved by the principal or school board staff according to school board policy.

Co-operative education courses have three components:

- An in-school learning module requiring a minimum of 25 hours.
- A community-based component requiring a minimum of 50 hours for a half-credit course and a minimum of 100 hours for a full-credit course.
- Reflective learning activities.

A student must be at least 16 years of age to undertake the community-based component of a co-operative education course. Students may undertake the community-based component of a co-operative education course during or after school hours, at weekends, and/or during vacations, in accordance with board and school policies.

Short-Term Placements

Short-term work/community placements are typically 5–25 hours in length and are designed to complement and extend students' in-school learning and help students to make connections between the curriculum and the world beyond the school. Such learning opportunities assist students in educational and career planning and in making successful transitions through education and into their first career.

Short-term placements are designed as an integral part of a course. A number of different models for work/community placements have been developed. These include the following:

- A job shadowing experience that typically involves students in observing or "shadowing" someone in a work situation; job shadowing is of very short duration, typically 5 hours, or at most, a few days spread over the school year.
- Work/community placements, typically 10–25 hours, which offer students opportunities to apply or extend knowledge and skills learned in the course of which the work/community placement is a component.

Job Shadowing

Job shadowing can be a part of a student's program at the junior and senior high levels and at the elementary level if, in the opinion of the school, the student could benefit from the experience. Job shadowing requires the written permission of the student's parent/guardian. Job shadows require students under the age of 14 to be under the direct supervision of a teacher or family member.

Work/Community Placements

Work/community placements (10–25 hours) require students to be 16 years of age unless they are under the supervision of the teacher on-site during the placement. Work/community placements require the written permission of the student's parent/guardian and must be conducted during regular school hours. Work/community placements are to be connected to the learning outcomes of a specific course.

For further information, see *Community-Based Education Policy and Guidelines* (2012).

Curriculum Documents

Community-Based Learning: A Resource for Schools (2013)
Co-operative Education: A Resource for Schools (2013)

Comprehensive Guidance and Counselling

The Comprehensive Guidance and Counselling Program is a vital component of a comprehensive school system. It is designed as a total school program with defined outcomes and benefits for all students. The program activities and services are developmental in nature and form an integral part of the educational experience for students from grades primary to 12.

The program provides direction by helping students acquire knowledge, attitudes, strategies, and skills in the four program domains:

- Personal—to understand and appreciate oneself
- Social—to relate effectively to others
- Educational—to develop appropriate educational plans
- Career—to develop life and career plans

The program includes both curriculum and service components in four key areas:
- Guidance curriculum—structured classroom and group activities within the program domains
- Life/career planning—activities that help students to plan, monitor, and manage their learning and to develop plans for their career development
- Professional services—counselling, consultation, and co-ordination activities that meet the immediate needs and concerns of students
- Program management—activities and strategies that establish, maintain, and enhance the overall program

The program has four key structural cornerstones that provide support to ensure that program goals and strategies aimed at addressing specific student needs at the school level are consistent with provincial guidelines. Each school that offers the program is required to have the following structural cornerstones in place:
- A program advisory committee—assists in the design, implementation, and evaluation of the program
- A needs assessment process—data gathered at the school level from students, teachers, and community to assist in developing the priorities and goals to address local student needs
- A program evaluation process—designed to determine success of program goals and to provide for future revision and direction
- A professionally qualified counsellor—mandatory for full program implementation as the counsellor's professional expertise is required to deliver specific program components

Elementary (Primary–Grade 6)

At the elementary school level, the guidance and counselling program is especially concerned with assisting students to develop self-awareness and to relate effectively to others. The program helps students adjust to the school environment and deal with personal and social issues. By making students aware of life and career planning, the program helps students develop an initial understanding of the meaning of work, of the types of work being done, and roles in their homes, school, and community. Guidance counsellors in the program help students cope with crises in their lives and are significantly involved with community and social service agencies.

Junior High (Grades 7–9)

At the junior high school level, the comprehensive guidance and counselling program continues to help students in their exploration of self as they develop an understanding of their own interests, aptitudes, abilities, values, and attitudes. Guidance counsellors at this level use a variety of individual and group techniques to assist student development in personal, social, educational, and career development domains.

A major responsibility of the qualified guidance counsellor in the guidance and counselling program at the junior high level is crisis counselling. This often includes close co-operation with community and social service agencies. The guidance and counselling program also supports career planning and education as it helps students to
- develop skills in decision making and problem solving
- achieve more effective levels of personal planning and decision making within the context of their abilities, interests, personalities, and educational options
- appreciate the range of options open to them, as well as the education and training they will need in the future workplace
- understand the changing roles of men and women
- profit fully from the instructional activities of the school
- develop study skills

Senior High (Grades 10–12)

At the senior high level, the guidance and counselling program extends all aspects of the junior high program and prepares students for post-secondary education, training, and employment. Through instruction and both group and individual guidance and counselling, students receive further practise and assistance in applying decision-making skills to personal situations, educational choices, and tentative occupational choices related to their interests, aptitudes, and values. In addition, qualified guidance counsellors help students cope with crises in their lives and work closely with community and social service agencies.

For further information see *Comprehensive Guidance and Counselling* (2010).

Integration of Information Technologies within School Programs

The Integration of Information and Communication Technology within the Curriculum is available on line at *http://lrt.ednet.ns.ca* and *at http://nsvs.ednet.ns.ca*

This document provides the foundation for the integration of information and communication technology (ICT) within the curriculum. By its very nature, technology changes how people perceive a task or problem and how they deal with it. In general, technology also contributes to environmental, cultural, social, and economic change.

The Nova Scotia Department of Education and Early Childhood Development supports the deployment of ICT in classrooms and for school administration to sustain and improve learning. ICT best improves learning when it is accessible, flexible, responsive, participatory, and integrated thoroughly into all public school programs. This vision is concerned with enabling students to achieve essential graduation learning and curriculum outcomes through the selection and integration of appropriate digital tools within the public school program.

The document is divided into strands—Digital Citizenship; Productivity; Communication; Research, Innovation, Problem-Solving and Decision Making; Technology Operations and Concepts—that are the responsibility of all teachers of grades primary–6, are organized by grade level, and are in draft format as of September 2013. This draft document and illustrative examples showing how ICT can be integrated within curricular areas can be found at http://nsvs.ednet.ns.ca. The strands—Basic Operations and Concepts; Social, Ethical, and Human Issues; Productivity; Communication; Research, Problem Solving, and Decision Making—are the responsibility of all teachers of grades 7–12, are organized by key stages, and will be revised beginning in 2013–2014. The current document can be found at http://lrt.ednet.ns.ca.

Student access to a wide range of ICT resources will strengthen and support the implementation of all Nova Scotia curriculum and help prepare our students for their role as global citizens.

Program of Learning Assessment for Nova Scotia

The purpose of the Program of Learning Assessment for Nova Scotia (PLANS) is to provide information from student assessments in elementary, junior high, and senior high schools that support teaching and learning and to report on the performance of the provincial education system.

PLANS comprises four components:

- Assessments in mathematics and language arts at various grade levels.
- Teacher involvement in the development, administration, and marking of assessments.
- The generation of data to determine the learning needs of students so that they may be supported.
- The reporting of results for system accountability and improvement.

PLANS includes the following provincial assessments and examinations:

- Reading and Writing in Grade 3, administered over two 90-minute sessions to grade 3 English program students in late September / early October.
- Mathematics in Grade 4, administered over two 90-minute sessions to grade 4 students in late September / early October.
- Reading, Writing, and Mathematics in Grade 6, administered over four 90-minute sessions to grade 6 students in late September / early October.
- Reading, Writing, and Mathematics in Grade 8, administered over four 90-minute sessions to grade 8 students in late May / early June.
- Nova Scotia Examinations in Mathematics 10, Mathematics at Work 10 and English 10 will be administered at the end of each course starting in the 2013–2014 school year.

Equivalent assessments are administered in French to students in the Conseil scolaire acadien provincial. Students enrolled in French Immersion undertake their mathematics assessments in French (e.g., mathématiques en 4e année).

PLANS also includes the following national and international assessments:

- The Progress in International Reading Literacy Study (PIRLS), which assesses the reading ability of grade 4 students.
- The Pan-Canadian Assessment Program (PCAP), which assesses the reading, mathematics, and science abilities of grade eight students.
- The Programme of International Student Assessment (PISA), which assesses the reading, mathematics, and science abilities of 15-year-old students.

The provincial assessment schedule is posted on the Evaluation Services website in the spring preceding each new school year. For more information about PLANS and assessments and examinations, please visit the PLANS (http://plans.ednet.ns.ca).

Policies and Procedures

Policies and Procedures

Advanced Courses

Consistent with the philosophy of common educational experiences at the grade 10 level, and increased opportunities for specialization at grades 11 and 12, the public school program includes advanced course offerings at grades 11 and 12.

English public school programs currently include provincially developed grade 11 and grade 12 advanced courses in biology, chemistry, English language arts, global geography, global history, mathematics, music, physics, and visual arts.

International Baccalaureate (IB) grade 11 and 12 courses are recognized as advanced courses and may be credited towards graduation requirements whether taken as part of a complete IB program or as discrete courses.

Provincially developed advanced courses and approved locally developed advanced courses are categorized as either (a) a course offered *instead of* the related public school program academic course or related approved locally developed academic course, or (b) a course offered *in addition to* related public school program courses and designed to extend student learning in a particular field of study.

Advanced courses are characterized by additional content and by curriculum outcomes different from those of related courses offered in that subject area as academic credits. Advanced courses offer expanded and extended learning outcomes in both the theoretical and applied aspects of the subject area. Advanced courses balance learning experiences in three required areas: in-depth treatment of selected topics, independent learning and reflection, and extended research projects / case studies and related activities.

Requests for approval of locally developed courses as advanced credits will be evaluated with reference to policy guidelines and to the framework provided by the principles of learning, the essential graduation learnings, and the general and specific curriculum outcomes of related public school programs and courses. Approval is also required for learning resources and teaching materials not included in the authorized lists to be used in locally developed and public school program advanced courses.

Assessment of Student Learning

Assessment is the systematic process of gathering information on student learning.

High-quality assessments are essential to high-quality education and have a well-established link to student performance. Effective assessment practices can have a powerful effect upon learning.

Assessment policies and procedures should support the curriculum, instructional practices, and assessment strategies described in current curriculum documents. Practices should reflect current knowledge about how students learn and be flexible enough to meet the diverse needs of learners.

Purposes of Assessments

The primary purpose of assessments is to provide information to improve student achievement and instructional programs, and to produce a basis for evaluation.

Assessments help students to reflect on how well they have learned, to redirect their efforts, and to set goals for their future learning. To promote learning, assessments should be used to help students to recognize their learning strengths and needs and to identify ways they can further develop as learners.

Assessments enhance teachers' insights and knowledge about their students' learning needs and styles. Teachers use information gathered through assessments to describe what students know, are able to do, and are working toward. They use this information to provide students with useful feedback on a regular, ongoing basis, guiding their efforts toward improvement.

Reflection on this information helps teachers to evaluate the effectiveness of their instructional approaches and to consider how they might adapt them to address learners' needs.

Evaluation is the process of analyzing, reflecting upon, and summarizing assessment information and making judgments or decisions based upon the information gathered.

Teachers and administrators use evaluations to communicate with parents about student learning and with others who require information about levels of student performance in relation to expected curriculum outcomes.

Principles of Assessment and Evaluation

Recognizing that the best interests of the student are paramount, teachers and administrators should use the following principles as the basis of assessment policies, procedures, and practices.

- Assessment strategies and tasks should be appropriate for and compatible with the purpose and the context of the assessment.
- Students should be provided with sufficient opportunity to demonstrate the knowledge, skills, attitudes, or behaviours being assessed.
- Procedures for judging or scoring student performance should be appropriate for the assessment method used and be consistently applied and monitored.
- Procedures for summarizing and interpreting results should yield accurate and informative representations of a student's performance in relation to the curriculum outcomes for the reporting period.
- Assessment reports should be clear, accurate, and of practical value to the audience for whom they are intended.

These principles highlight the need for an assessment process that

- informs teaching and promotes learning
- is an integral and ongoing part of the learning process
- is clearly related to and consistent with designated curriculum outcomes
- involves multiple sources of information
- provides a variety of means for students to demonstrate their learning
- is fair and equitable to all students
- accommodates the needs of students who require an individual program plan

While assessments may be used for different purposes and audiences, all assessments must give each student optimal opportunity to demonstrate what he/she knows and can do.

Classroom Assessment

Classroom assessment provides information about students' progress in achieving expected learning outcomes, by focusing on the significant aspects of the learning that the student must demonstrate. Teachers determine the aspects of learning on which to focus the assessment and the most appropriate assessment strategies and tasks to use for that purpose.

The teacher's use of a broad range of assessment strategies and tasks affords students multiple opportunities and a variety of ways to demonstrate their knowledge, skills, and attitudes. Teachers may rely on a variety of sources for their assessments, including

- the teacher's anecdotal records and teacher journals or log books
- conferences with the student
- observations
- peer assessment
- pencil-and-paper procedures (quizzes, tests, examinations)
- performance assessments
- the student's self-assessment
- student journals or log books
- students' work samples

Students benefit when they clearly understand the expectations for their learning. When students are aware of the outcomes for which they are responsible and the criteria by which their work will be assessed or evaluated, they can make informed decisions about the most effective ways to demonstrate what they know, are able to do, and value.

Students also benefit from opportunities to negotiate assessment and evaluation procedures. It is important that students participate actively in the assessment and evaluation of their learning, developing their own criteria, and learning to judge a range of qualities in their work. Students who are empowered to assess their own progress are more likely to perceive their learning as its own reward and to develop as lifelong learners.

Assessment tasks should be meaningful and engaging to learners and should provide the ongoing feedback students require to set goals for improving their learning and performance. Assessment strategies should also provide the feedback teachers need to determine areas requiring intervention and support and to tailor instruction to the individual learning needs and styles of their students.

Student performance should be evaluated according to specific criteria directly related to designated curriculum outcomes. Teachers bring to this process their insight, their knowledge about learning, and their experience with students.

Teachers have a special responsibility to ensure that assessment and evaluation procedures are clearly communicated to students and parents, to explain accurately what progress students are making in their learning, and to respond to student and parent inquiries about learning.

Challenge for Credit

The challenge for credit process allows the school to recognize that a student has already acquired the skills, knowledge, and attitudes that an existing course seeks to develop.

Challenge for credit may occur in dance, drama, languages, mathematics, music, physical education, and visual arts. Schools, through their boards, may apply to the department to offer challenge for credit on a pilot basis in subject areas other than those listed above.

Challenge for Credit Policy Guidelines are available from the Arts Education Consultant.

Community-Based Education Policy

Policy guidelines reflect recognition of the benefits of community-based education in enabling students to make effective transitions through education and into employment. Policy guidelines address two categories of community-based education:

- *Co-operative Education:* one-half credit courses or full-credit courses requiring long-term community/workplace placements
- *Short-term Placements:* community/workplace learning experiences, typically of 5–25 hours, designed as an integral part of a public school program or approved locally developed course.

Community-Based Education Policy provide Nova Scotia school boards, schools, and teachers with direction regarding co-operative education courses, work/community placements, and job shadowing.

Independent Study

Students may be granted one independent study credit in each of grades 11 and 12. Each of these credits may comprise two half-credits.

Independent study credits help promote individualized programming and allow students to initiate and develop courses tailored to their needs, abilities, and interests. Independent study credits are not intended to replicate any existing course in the public school program.

It is expected that schools will provide opportunities for students who wish to earn independent study credits. Independent study credits are an option for all students.

Public School Network Access and Use Policy

The Director, Learning Resources and Technology Services, monitors the *Public School Network Access and Use Policy*. This responsibility includes ensuring that the policy is formally and regularly reviewed.

In public schools in Nova Scotia, students access and use information from a variety of sources, including the Internet, to collaborate with peers and experts and to support and extend their learning as prescribed in *Public School Programs*. School board staff will use public school networks to fulfill requirements of their employment including professional learning. Use of networks will allow users to access local, national, and international electronic information sources. Access to information, collaboration, and creation of digital resources are vital to

intellectual inquiry and achievement of learning outcomes. In this context, the *Public School Network Access and Use Policy* is intended to provide a balance between access and risk.

A detailed *Public School Network Access and Use Policy* is available online in English at http://lrt.ednet.ns.ca/pdf/aup.pdf and in French at http://lrt.ednet.ns.ca/pdf/aup_fr.pdf.

Locally Developed Courses

Approval is required to offer a course not included in the authorized programs named in this document, as well as for the use of related learning resources and teaching materials not included in the authorized lists.

Application forms for locally developed courses are available from English Program Services and must be returned to the English Program Services Division by **May 30, 2014,** to request approval for any new locally developed course to be offered in the 2015–2016 school year.

The school board and consultants from the Department of Education and Early Childhood Development will monitor and evaluate approved locally developed courses.

Policy for French Second Language Programs

The Department of Education and Early Childhood Development, Public Schools Branch (French Second Language Program Services), is responsible for providing leadership and orientation for French second language programs in Nova Scotia public schools.

Program Policy for French Second Language Programs provides Nova Scotia school boards, schools, and teachers with direction regarding the delivery of French second language programs. This document provides a description of the different French second language programs offered in the province as well as policies and guidelines regarding program implementation.

The policy is currently being revised and will be available through Public Schools Branch (French Second Language Program Services) of the Department of Education and Early Childhood Development.

Progress of Students

The Department of Education and Early Childhood Development expects school boards to implement policies and practices that will encourage each student to make maximum progress according to his or her needs and abilities. From elementary through senior high school, instruction must be adapted to meet the varying rates and patterns of learning of all students and to satisfy students' individual needs.

The assessment of progress should be based on the department's programs and course descriptions and on statements of expected learning outcomes. Schools are responsible for creating the learning environments that will encourage students to make maximum progress. School boards should review their policies regularly to ensure that they reflect the department's expectations.

To help students develop to their fullest potential, school boards should ensure that procedures are in place for the continuous appraisal of each student's growth. These informal and formal appraisals should assess students' emotional, social, physical, and intellectual development. School boards are responsible for students' placement within schools. They should base their decisions on the assessments they have conducted.

A board's policies on assessment and on the placement of students may differ for elementary, junior, and senior high levels but should be applied consistently at each level across the region.

It is the right of students to be informed of their educational progress on a regular basis. It is the right of parents to be provided with the information they require to assess their children's progress and achievement in school. It is essential that parents be informed as soon as possible when their children are experiencing serious problems related to progress and achievement.

Teachers' reports on a student's progress, either oral or written, should focus on the individual student's development and achievement in comparison with the expected learning outcomes and program expectations.

It is of the utmost importance that reporting practices and procedures reflect expected learning outcomes of the program, and that from the report, students and parents can readily understand the individual's progress and achievement in relation to the provincial program or individualized program plan's expected learning outcomes.

Reporting Policy Framework provides additional information on reporting practices and procedures.

Racial Equity Policy

Racial Equity Policy (March 2002) outlines the Department's commitment to promoting equity in the public school system and within the Department. The policy supports the work done by school boards to develop their own racial equity policies and provides an overall provincial framework to ensure consistency.

Racial Equity / Cultural Proficiency Framework (2011) provides a guide to implementation of all components of the *Racial Equity Policy* and to promote leadership in the area of cultural proficiency.

Roles and Responsibilities of Partners

Achieving the goals of the public school program requires schools and classrooms that focus on providing excellence in teaching and learning. Achieving this level of quality can best be done through teamwork where partners have meaningful involvement in decision making.

Success in schooling begins in and is sustained by the home. The family is the centre of learning. Parents are the child's first teachers.

If students are to be successful learners, parents must demonstrate their respect for education and value its worth. Students should know that their family, school, and community have high expectations of them and will work together to help them achieve these high expectations.

The *Education Act* (1996) specifies roles and responsibilities for students, parents, teachers, principals, superintendents, support staff, and school boards.

The *Act* also specifies the roles and responsibilities for school advisory councils. A School Advisory Council is a legally recognized body composed of the principal and representatives of teachers, support staff, students, parents, and community members who work together in an advisory capacity to increase the quality of education the school provides. The fundamental purpose of the School Council is to ensure that all students receive the best possible learning opportunities by engaging all partners in an ongoing process of problem solving and shared decision making.

For further information, the following documents should be consulted:
- *Education Act* (1996)
- *Special Education Policy* (2008)

School Code of Conduct

The *Provincial School Code of Conduct* comprises principles, standards of behaviour, identification of disruptive behaviours, consequences of non-compliance and consequences specifically forbidden. Its purpose is to set the context for a safe and productive learning environment by outlining expected behaviour in safe and caring schools. It also provides a framework for the development and implementation of provincial, board, and school-level codes of conduct in reference to regulations under the *Education Act.* The Positive Effective Behaviour Supports (PEBS) framework facilitates implementation of the *Provincial School Code of Conduct*.

Policy Document

Provincial School Code of Conduct and School Code of Conduct Guidelines (2008)

Special Education Policy

Special education policies, regulations, guidelines, and procedures are outlined in the *Special Education Policy*. This manual describes the principles, student services and supports, programs, and partnerships that collectively ensure a co-ordinated and consistent approach to program planning and service delivery. As part of the public school program in each school in their jurisdiction, school boards are required to provide programming and services for students with special needs and to give parents of students with special needs the opportunity to participate in the development of an individualized program for their children.

Student Records Policy

Student records management must be conducted in a consistent, efficient, effective, accurate, and accountable manner. Public schools are required to keep accurate, well maintained, and up-to-date information for all students.

Student records are vitally important to ensure the smooth transition of a student through the public school system. Consistent student records management across all schools and school boards facilitates student record transfers as students progress through their public school education.

The information collected and maintained in student records is used to assist students through the charting of their educational progress, in addressing educational issues of programming and placement, and in planning academic programs and careers. Compliance with the *Education Act,* The *Freedom of Information and Protection of Privacy (FOIPOP) Act*, and the *Youth Criminal Justice Act (YCJA)* must be ensured. The *Student Records Policy* (2006) is subject to those statutes.

Student record management is governed by the security, access, transfer, and retention and destruction provisions outlined in the *Student Records Policy* (2006).

Resources and Services

Resources and Services

African Canadian Services

The African Canadian Services Division was established in 1996 and is responsible for co-ordinating and developing the Department of Education and Early Childhood Development's response to the *Black Learners Advisory Committee's Report on Education*. The implementation of the report's recommendations focuses on elementary and secondary education, ensuring that curriculum programs and services in the public school system reflect the needs of Black learners. The African Canadian Services Division also provides advice and guidance to all other branches and divisions of the department regarding African Canadian education.

African Canadian education is defined in Section 3(a) of the *Education Act* as "the development of programs, resources, and learning materials that provide information about and promote understanding of African people and their history, heritage, culture, traditions, and contributions to society, recognizing their origins as Africans."

African Canadian Services, in co-operation with other Public School Branch divisions, plays a key role in ensuring that all students and teachers have the benefit of anti-racism education and information.

African Canadian Studies 11

African Canadian Studies 11 is an eligible credit to meet the Canadian history graduation requirement. While it is offered at the grade 11 level, the course is available to grade 10 and 12 students as well. Details of this course may be found under Social Studies in Program and Course Descriptions.

African Canadian Education

In accordance with the *Education Act*, Section 140 (a)(b), the Department of Education and Early Childhood Development expects school boards to "provide and implement programs and policies promoting African-Canadian education; and include in learning materials information respecting the history, heritage, culture, traditions, and the contribution to society of African people."

Administrators, teachers, and support staff should foster sensitivity to African Nova Scotian students' emotional, psychological, physical, and learning needs. All administrators, teachers, and support staff should demonstrate high expectations of African Nova Scotian students, respect for their interests and cultural background, and sensitivity to their needs.

School boards have an obligation to communicate and enforce equity standards and, therefore, should develop and implement anti-racism policies.

Resource

BLAC Report on Education: Redressing Inequity—Empowering Black Learners (Vol. 1, 2, and 3, 1994)

Artists in Schools Programs

ArtReach

The Art Gallery of Nova Scotia and English Program Services, Department of Education and Early Childhood Development, have created an exciting educational partnership that links Gallery programs and exhibitions with Nova Scotia schools. This initiative enhances existing outreach projects with travelling shows of original prints donated by the Canada Council Art Bank that include tours and workshops for teachers and students across the province.

Other features of the ArtReach program are the development of online curriculum links between Gallery works and school programs and a variety of arts sessions that encourage teachers to create dynamic learning experiences for their students. Information on the ArtReach program, as well as regular bulletins, is available on the Art Gallery of Nova Scotia website at http://agns.gov.ns.ca.

ArtsSmarts/GénieArts

An ArtsSmarts project is a cost-effective, powerful method of giving students an arts experience that is integrally related to other subject content. An ArtsSmarts project breaks down boundaries and can profoundly expand teaching and learning in schools. Collaboration with artists and other community resources helps to establish new visions of what might be. Schools are required to contribute 30 percent of the total cost of their project, and the maximum amount of funding available for each project is $3000. This program, known as GénieArts, is also available to schools offering French immersion.

For additional information, telephone (902)424-6651 or visit the ArtsSmarts website at http://ArtSmartsNovaScotia.ca or the GénieArts website at www.genieartsnouvelleecosse.ca.

Debut Goes to School!

Debut Goes to School!, a Debut Atlantic program, offers students throughout Nova Scotia direct access to the most outstanding classical musicians and educators in the country. Through this program, students are provided the opportunity to participate in concerts and other educational events directed at various age groups and levels of ability. Musicians and students share music, thoughts, and concepts on a variety of themes. Depending on the audience, subjects range from the basics on the artists' instruments, to careers in the music industry, to the creativity and work behind composing.

Debut Goes to School! covers all artist fees as well as travel and production costs. There is no cost to the presenting institution.

For more information, visit www.debutatlantic.ca and click on Education Programs.

PAINTS

PAINTS (Professional Artists in the Schools) is a program that helps schools throughout Nova Scotia to bring professional artists (both in visual arts and fine crafts) into their classrooms. This highly successful program creates dynamic partnerships between professional artists, teacher, and students.

The program provides 50 percent of the hourly wage for the artist; the school pays the other 50 percent, making up the total $36/hour rate. The program will also offer funds for supplies and materials as well as travel expenses for artists. If necessary.

For more information, visit the Visual Arts Nova Scotia website at http://vans.ednet.ns.ca.

Perform!

Through Perform! students and teachers have opportunities to work with professional actors, dancers, and choral musicians to explore and develop their own skills and creativity. Participation is open to all grade levels in both English and French and can involve learning not only in the performing arts, but also learning through the performing arts in other subject areas such as English language arts and history. Schools are required to contribute 50 percent of the artists' fees, and project hours must be between a minimum of three to a maximum of 20.

For more information, telephone (902)425-3876 or visit the Perform! website at http://performns.ca.

WITS

WITS (Writers in the Schools) provides a unique learning opportunity for students. With more than 60 writers participating, WITS will help teachers teach students to love reading and to become lifelong readers. Schools are required to contribute half the cost of hosting a writer in the school for a half or whole day.

For additional information, telephone (902)423-8116, email (talk@writers.ns.ca), or visit the Writers Federation of Nova Scotia website at http://writers.ns.ca.

Assistive Technology

The term **assistive technology** (AT) is used to describe a range of strategies, services and low- to high-tech tools used to enable, improve, increase, and maintain a student's ability to meet the learning outcomes of the Public School Programs (PSP) or of an individual program plan (IPP). Assistive technology has the potential to increase a student's control over objects, daily activities, age-appropriate experiences, and subsequent learning. Consideration of assistive technology is usually most effective when carried out within the collaborative program planning process.

In providing assistive technology services, school boards in Nova Scotia must consider priorities, resources, and unique circumstances with their own boards and communities. School boards are encouraged to explore service delivery options and combinations of these options for assistive technology, including

- assistive technology-trained school personnel (e.g., classroom teachers, resource teachers)
- regional support personnel within the community (e.g., Atlantic Provinces Special Education Authority, assistive technology specialists, occupational therapists, physiotherapists, learning disabilities specialists, speech language pathologists)
- clinical services within the community (e.g., occupational therapy, physiotherapy, speech language pathology, rehabilitation services)

Assistive Technology: Supporting Student Success (2006) and *Assistive Technology* (DVD) (2009) provides educators and students with the strategies and tools required to address barriers to learning. Greater access to curriculum and learning opportunities supports students in achieving educational outcomes.

Atlantic Provinces Special Education Authority (APSEA)

The Atlantic Provinces Special Education Authority (APSEA) provides educational services, programs, and opportunities for students from birth to 21 years who are blind, visually impaired, deaf, hard of hearing, and deafblind. While school boards are the direct educational service providers for all school-aged children, APSEA helps to meet the specific needs of students with sensory disabilities through assessment, direct instruction, consultation, and provision of adaptive equipment and technology.

Access to programs and services for school-aged children and youth designed to assist students in meeting outcomes is available through a referral by the school principal in conjunction with the program planning team.

Centre provincial des ressources pédagogiques (CPRP)

The Centre provincial de ressources pédagogiques (CPRP) (Provincial Centre for Educational Resources) was founded in 1979 by Université Sainte-Anne in Pointe-de-l'Église to meet the needs of French teachers in both Acadian/Francophone and Anglophone school boards in Nova Scotia. In 1988, it became affiliated with the Department of Education and Early Childhood Development. Although the CPRP is still physically on the Université Sainte-Anne campus in Pointe-de-l'Église, since 2008 the Conseil scolaire acadien provincial has taken over its operation.

Lending Library

The CPRP's inventory presently includes more than 80 000 items in a variety of media formats: teachers' guides, slides, CD-ROMs, videocassettes, DVDs, geographical maps, textbooks, exercise books, educational games, and kits. This educational material is available to all French first-language and French immersion educators. A catalogue of the CPRP inventory is distributed to all the Acadian and Francophone schools in the province, as well as to schools with French immersion programs. Teachers can order online (koha), by mail, fax, email, or phone. The Internet address for the lending library is http://cprp.ednet.ns.ca.

Professional Development Services

CPRP staff members hold regular meetings with teachers and students to help them learn how to use the documents of the CPRP, develop themes, and lead in-service workshops.

Contact information is as follows:

CPRP
1695 route 1
C.P. 160
Pointe-de-l'Église (Nouvelle-Écosse) B0W 1M0
Telephone: (902) 769-9000
Fax: (902) 769-3398
Email: losierp@cprp.ednet.ns.ca
Website: http://cprp.ednet.ns.ca

Centre provincial de ressources préscolaires

The Centre provincial de ressources préscolaires (CPRPS) is based in the CSAP's main office in La Butte. The centre has a lending library of educational resources for child care facility educators, pre-primary, and Acadian Preschool programs. Its lending library has over 10 000 documents, which are available through an online catalogue.

The Centre provincial de ressources préscolaires pays the postage fees for returning the material to its offices.

Contact information is as follows:

Centre provincial de ressources préscolaires
9428, route 1 (Édifice du CSAP)
C.P. 222
Saulnierville (Nouvelle-Écosse) B0W 2Z0
Telephone: (902) 769-5850
Toll Free: 1-866-271-5682
Fax: (902) 769-3059
Email: petiteenfance@cprp.ca
Website: www.cprps.ca

Education Media Library

The Education Media Library at Learning Resources and Technology Services offers Nova Scotia educators access to thousands of copyright-cleared resources in video, audio, and photographic formats. The searchable online catalogue is available at http://lrt.ednet.ns.ca. The Education Media Library ships to all Nova Scotia schools, loan videos (return postage-paid) and video dubbing titles that become a part of each school collections. The Education Media Library has also implemented an online collection of curriculum and teacher professional learning videos and resources that schools download/stream to support just-in-time use. This collection is also searchable through the database, but can be found directly at http://dvl.ednet.ns.ca.

Schools may arrange to borrow or obtain dubbed copies of resources from the Education Media Library collection by telephone, email or online request form located on our website. Contact information is as follows:

Education Media Library
PO Box 578, 2021 Brunswick Street
Halifax, NS B3J 2S9
Telephone: (902) 424-2440
Fax: (902) 428-3176
Email: mediacir@ednet.ns.ca
Website: http://lrt.ednet.ns.ca

EduPortal

The EduPortal provides a gateway for educators and school administrators to access a variety of resources and services offered by the Nova Scotia Department of Education and Early Childhood Development. The goal for this project is to

- provide easy access for educators to the tools they need

- have a single log in for applications

The EduPortal can be found at https://edapps.ednet.ns.ca/eduportal. Accounts have been created for Nova Scotia educators who then can register to activate their account.

LRTS Innovation Centre

The Innovation Centre at Learning Resources and Technology Services supports the evaluation, creation, collaboration,and development of educational technology, interactive learning objects, applications and software to support the Public School Program. The centre's technician supports technology integration and the Nova Scotia Virtual School. In addition, the centre provides school boards with consultation and support services in using and applying educational technology. Hardware, software, and other technologies are evaluated for Public School use by educators in this innovative and engaging environment.
Contact information is as follows:

General Inquiry
PO Box 578, 2021 Brunswick Street
Halifax, NS B3J 2S9
Telephone: (902) 424-2462
Fax: (902) 424-0633
Email: lrt@ednet.ns.ca

Innovation Centre
Telephone: (902) 424-2450
Website: http://lrt.ednet.ns.ca

Learning Resources and Technology Services

Learning Resources and Technology Services (LRTS) is the centralized, educational technology division of the Department of Education and Early Childhood Development. LRTS coordinates the annual funding to school boards through the Information Economy Initiative Extension (IEIE). IEIE assists with funding to support the acquisition of new hardware and software for classrooms and supports funding for technology integration professional development and technical support within school boards. LRTS evaluates, develops, recommends, and provides blended and fully online learning environments, software tools, and digital resources that engage 21st-century student and teacher learning interests, skills development, and learning requirements.

Consultant Services

Consultant Services support the implementation of the Framework document, *The Integration of Information and Communication Technology within the Curriculum,* through online and face-to-face professional learning options for teachers. To achieve this, consultants use the resources of the Nova Scotia Virtual School and other Department of Education and Early Childhood Development web spaces.

At the request of divisions of the Public Schools Branch, Consultant Services support the integration of technology within the curriculum through the design, selection, and development of curriculum guide components and curriculum learning resources. Consultants respond to requests from Nova Scotia school boards for curriculum and technology integration implementation support.

Consultants identify and coordinate the evaluation of hardware, software, digital resources and technological devices for learning, and assist in their implementation and use within the Public School Programs. New school and renovation support to Department of Education and Early Childhood Development Facilities and Management and to the Nova Scotia Department of Transportation and Infrastructure Renewal (TIR) for design, budgeting, outfitting, and technological expertise as it relates to the Public School Programs are also key services.

Distributed Learning

The Nova Scotia Virtual School (NSVS) (http://nsvs.ednet.ns.ca) is a common provincial online learning platform. It provides for

- the delivery of public school courses (Distributed Learning),
- online extensions of school-based classes (Blended Learning)
- online resources for students and teachers (Supports for Learning)
- professional development, online meetings and collaboration for teachers and other school boards' staff and the Department of Education and Early Childhood Development (Professional Learning).

Distributed Learning is provided by the Nova Scotia Department of Education and Early Childhood Development in co-operation with School Boards as an alternative to traditional classroom study. Students can earn public school credits through online learning or correspondence study.

Students take online courses for a variety of reason: their school does not offer a course that they need, there is a course conflict, they are unable to attend school, or they are seeking an alternate way to achieve a credit. All NSVS courses follow the Nova Scotia Public School Program curriculum outcomes. Information about the Nova Scotia Virtual School is available at: http://nsvs.ednet.ns.ca.

Teachers and students in public schools in Nova Scotia have access to a rich online collection of resources including periodicals relevant to curriculum learning outcomes and teacher professional learning. Access from school is available without a password at http://search.ebscohost.com. Access from home requires a password and ID that are unique to each school / educational site.

Correspondence studies are a self-paced learning option for public school students and for adults. When a student successfully completes a course, a certificate is issued that can be credited towards junior or senior high school completion. Information about Correspondence Studies is available at: http://csp.ednet.ns.ca.

For more information, contact
Nova Scotia Virtual School
PO Box 578, 2021 Brunswick Street
Halifax, NS B3J 2S9
Telephone: (902) 424-0814
Email: nsvs@gov.ns.ca
Website: http://nsvs.ednet.ns.ca

Correspondence Study Program
PO Box 578, 2021 Brunswick Street
Halifax, NS B3J 2S9
Telephone: (902) 424-4054
Fax: (902) 428-5828
Email: csp@gov.ns.ca
Website: http://csp.ednet.ns.ca

Media Production

The production section of LRTS designs, develops, and produces video, audio, and multimedia materials that support the public school program and teacher professional development. LRTS productions use exemplars from Nova Scotia schools to directly support teaching and learning. These resources are listed in the Education Media Library (http://lrt.ednet.ns.ca) collections and many can also be accessed on the digital video library link (http://dvl.ednet.ns.ca).

Contact information:

Learning Resources and Technology Services
General Inquiry, Media Production
PO Box 578, 2021 Brunswick Street
Halifax, NS B3J 2S9
Telephone: (902) 424-2462
Fax: (902) 424-0633
Email: lrt@ednet.ns.ca

Mi'kmaq Liaison Office

The Mi'kmaq Liaison Office is a new service delivery division established in 2008 in response to the Mi'kmaq Services Division Review. This new division has an expanded mandate and is housed within the Public Schools Branch.

The Mi'kmaq Liaison Office collaborates with Mi'kmaw Kina'matnewey on educational initiatives and issues to improve the quality of education for Mi'kmaw learners in both provincial and band schools. The Mi'kmaq Liaison Office plays a key role in ensuring that all students and teachers have the benefit of inclusive teaching practices and materials that fully reflect the Mi'kmaq and their contributions to the past and present state of our country and communities. In addition, the Mi'kmaq Liaison Office strives to ensure that teacher education in the province moves toward cultural competence, particularly in the area of teaching Mi'kmaw learners.

The Mi'kmaq have been defined in the *Education Act* as "all first-nation people, whether living on or off a reserve." The *Education Act* defines Mi'kmaq education as "the development of programs, resources, and learning materials that provide information about, and promote understanding of the Mi'kmaq and their history, heritage, language, culture, traditions, and contributions to society and that recognize their origins as first-nations people."

The Department of Education and Early Childhood Development recognizes that education must be attuned to the cultural and language needs of Mi'kmaw students. Through partnerships with parents and Mi'kmaw educational organizations, the department is committed to developing and delivering programs in Mi'kmaw heritage, history, language, and culture.

Mi'kmaq Studies 10

A Mi'kmaq Studies course has been developed for the grade 10 level as an option in social studies. This course will enable students to achieve a greater understanding of and respect for Mi'kmaq contributions to society. This course is an eligible credit for the Canadian history graduation requirement.

Details of this course may be found under Social Studies in Program and Course Descriptions.

Mi'kmaw Language 7–9

Mi'kmaw Language 7–9 provides an option for junior high students to fulfill the requirement of a second language. Mi'kmaw Language 7–9 is available for implementation in the public schools.

Mi'kmaq Education

In accordance with the *Education Act*, Section 138 (a)(b), the Department of Education and Early Childhood Development expects school boards to "provide and implement programs and policies promoting Mi'kmaq education; and include in learning materials information respecting the history, language, heritage, culture, traditions, and the contribution to society of the Mi'kmaq."

Provision of Learning Resources

Learning resources are provided to schools through a credit allocation system. Credit allocation refers to the financial system for the purchase of learning resources by the Department of Education and Early Childhood Development and/or school boards for use by students and teachers in the public schools of Nova Scotia. Learning resources include such items as textbooks, software, and manipulatives. A credit allocation is established yearly upon approval of Cabinet for each school board. It represents a dollar commitment for learning resources to support the curriculum, and the calculation is based on a per student amount and actual school board enrolments. There is no provision for the carry-over of credit allocation from one fiscal year to the next. The credit allocation is administered by the Nova Scotia School Book Bureau.

Up to 50 percent of each school board's credit allocation will be targeted for direct purchase by the Department of Education and Early Childhood Development. Directed purchasing refers to the identification and purchase of learning resources by the Department for each student enrolled in a specific course/subject or grade level. Targeting the purchase of learning resources on a province-wide basis ensures that every student across the province, regardless of his or her location, has equitable access to the same resources for a particular subject or course. This type of purchasing increases cost-efficiencies and purchasing power.

The remaining 50 percent of the credit allocation for each school board can be accessed by individual schools/boards to make purchases of authorized learning resources in support of school board and/or school priorities. Authorized learning resources will be purchased from the School Book Bureau using the online ordering system. Both up-to-date printable catalogues in PDF format and a searchable database are available on line at https://edapps.ednet.ns.ca/nssbb/.

Up to 5 percent of the credit allocation for each board may be used to purchase learning resources outside of the Authorized Learning Resources database, at the discretion and authorization of the school principal. Authorization for the 5 percent allocation is made according to the criteria and guidelines specified by the Department for this purpose. Procedures for using the 5 percent credit allocation are detailed in *5% Credit Allocation: Policies and Procedures* available on line at https://edapps.ednet.ns.ca/nssbb/and at the Nova Scotia School Book Bureau.

School Library Services

The school library introduces students to a wide range of print, non-print, and electronic learning resources. Using electronic information sources (e.g., databases, CD-ROM, the Internet) offers students the opportunity to develop technological competence while enhancing their print literacy and developing their critical-thinking skills.

The teacher-librarian plans, teaches, and evaluates assignments co-operatively with other teachers to combine information literacy with the school and classroom program. Library staff and teachers work collaboratively, using shared expertise, to meet the defined educational goals of the school.

In addition to making valuable curriculum connections, school library staff work with outside agencies (e.g., other libraries) to promote resource sharing. Current information should reflect respect for all peoples, being free of gender, racial, and other biases. Ensuring that the collection is balanced and that it supports the curriculum and students' personal needs is the responsibility of the professional staff.

Student Services

The Student Services Division provides direction and leadership to school boards regarding the development, implementation and evaluation of policies, programs, and services in the areas of Comprehensive Guidance and Counselling, English as an Additional Language, Multicultural Education, Special Education, and other support services to students.

The division

- provides leadership and direction to school boards on the development, implementation and evaluation of special education and other student services policies, programs and services
- provides leadership and direction to school boards in Comprehensive Guidance and Counselling and supports the implementation of effective learning environments, through Positive Effective Behaviour Supports (PEBS) and the *Provincial School Code of Conduct*
- develops guidelines and recommends resources for school boards to assist in the development and delivery of programs and services for students whose first language is not English (or French for students in Conseil scolaire acadien provincial)
- works with partners to address systemic racism and discrimination, and cross-cultural understanding and human rights through implementation of the *Racial Equity Policy*
- provides leadership to ensure that students from marginalized and diverse communities have equitable access to learning
- draws upon the research findings such as the Achievement Gap Initiative and the Identity, Equity, and Performance: Mathematics and Reading Literacy in Nova Scotia Public Schools to enhance programming and services for all learners
- provides supports for initiatives to address student needs such as programming for students with autism spectrum disorder, transition planning, severe learning disabilities programming, literacy support planning, and gifted education and talent development programming and services
- consults, liaises, and communicates with education partners and the public to ensure a co-ordinated and collaborative approach

Supplementary Resources

Supplementary resources are listed on the Student Services website at www.studentservices.ednet.ns.ca.

Technology Recycling Program / Computers for Schools Nova Scotia

Computers for Schools (CFS) Nova Scotia is a public/private partnership that works to provide Nova Scotia School Boards and related institutions with computer equipment at no charge (http://trp.ednet.ns.ca). Computers for Schools Nova Scotia has a steering committee with representation from Nova Scotia School Boards Association, school boards, Nova Scotia Teachers Union, Aliant Pioneers Volunteers, the non-profit sector, and the Nova Scotia Department of Education and Early Childhood Development.

Computers for Schools Nova Scotia is a partnership with the federal and provincial governments and a variety of other community stakeholders and helps learners of all ages by encouraging government, businesses, and individuals to donate technology for use in schools and related institutions. More information on how to donate can be found on the website (http://trp.ednet.ns.ca).

A federal funding agreement has been in place since 1993. The current licensee is the Nova Scotia School Boards Association.

In addition to providing a variety of technology to school boards and non-profit groups annually, CFS also operates a valuable training program. CFS provides Nova Scotia's young people between 18 and 30, with needed work experience through the Technology Work Experience Program (TWEP). This training ground is a stepping stone to employment in the technology field for these workers.

For more information, contact:

Technology Recycling Program
7037 Mumford Rd. Unit 7
Halifax, NS B3L 2J1
Telephone: 902-424-3596
Fax: 902-428-5826
Website: http://trp.ednet.ns.ca

Program and Course Descriptions

Arts Education

Arts education, a critical component of a balanced program of studies, is fundamental to the aesthetic, physical, emotional, intellectual, and social growth of all students. It provides unique ways of knowing, doing, living, and belonging in the global community and plays a key role in the development of creativity and imagination.

Foundation for the Atlantic Canada Arts Education Curriculum (2001) establishes a framework upon which curricula in the arts (dance, drama, music, and visual arts) has been developed. It also provides a reference point for discussion when administrators and other leaders are planning arts programs in schools.

Dance

Elementary (Primary–Grade 6) and Junior High (Grades 7–9)

Dance activities at the elementary and junior high levels can provide students with opportunities to become physically active while exploring an arts discipline. Movement activities can be used as an important tool to teach and reinforce concepts taught in other areas of curriculum. Dance activity integrates thinking, feeling and doing and is unique in its intention to create meaning and communicate through movement. Students are encouraged to think and act openly, to put aside the familiar and safe, to create from nothing, and to question and learn from what has already been created.

See *Foundation for the Atlantic Canada Arts Education Curriculum* (2001) for key-stage curriculum outcomes in dance at the elementary and junior high levels.

Senior High (Grades 10–12)

Dance 11
(academic, 1 credit)
Course Code: 043003

Note: Students may choose Dance 11 as an eligible credit that will meet the compulsory arts education graduation requirement **or** the physical education graduation requirement, but not both. If used as a physical education credit, students must take another arts education credit to fulfill the arts education graduation requirement.

Dance 11 is designed for all students, with or without previous formal dance training, and builds on student's experiences in dance throughout the physical education curriculum, grades primary to nine. It emphasizes creative movement as a form of communication and self-expression, as a unique way of learning about oneself and others. Learning experiences in this course offer students opportunities to explore a range of dance styles with more focused work in a few genres; create and present dance sequences; respond critically to their own dance works and those of others; and make connections with dance in local and global contexts, both past and present. Students also have opportunities to examine the connections between dance and other arts disciplines. The course

comprises four components: elements of movement, creation and composition, presentation and performance, and dance and society.

Drama

Elementary (Primary–Grade 6) and Junior High (Grades 7–9)

Drama-learning activities can be effectively infused throughout the elementary and junior high curriculum. Through drama experiences, students gain opportunities to increase their understanding of others, themselves, and the world around them; to increase their ability to construct and communicate meaning through language and movement; and to deepen their understanding of cultural and social traditions. Within the dramatic context, a wide variety of drama strategies can be used to explore themes, stretch thinking, solve problems, extend use of language, broaden frames of reference, deepen the understanding of self and others, and gain an understanding of dramatic forms.

See *Foundation for the Atlantic Canada Arts Education Curriculum* for key-stage curriculum outcomes in drama at the elementary and junior high levels.

Senior High (Grades 10–12)

Drama 10
(academic, 1 credit)
Course Code: 004159

Note: Drama 10 is eligible for one credit toward the compulsory arts education graduation requirement.

Drama 10 is an introductory course in drama focusing on the personal, intellectual, and social growth of the student. Drama 10 provides a foundation for future course work in drama and theatre. Through extensive work in improvisation, in both small and large groups, students gain confidence as they explore and communicate ideas, experiences, and feelings in a range of dramatic forms, such as dramatic movement and mime, dramatization, choral speech, choric drama, group drama, and Readers' Theatre.

Drama 10 comprises four components: foundation, movement, speech, and theatre. The foundation component, which focuses on building student confidence and trust and creating a supportive learning environment, introduces students to the essential elements of movement and speech. Experiences in movement and speech are extended in the movement and speech components and combined in the exploration of the various dramatic forms.

Opportunities for students to share and present their work are provided throughout the course, just as aspects of theatre may be shared at various points in the course. The theatre component enables students to bring together all of their learning in drama and theatre by developing a theatre piece or script. The course engages students in "collective creation"—the development of original scripts by students through research, discussion, and improvisation.

Drama 11
(academic, 1 credit)
Course Code: 004167

Note: Drama 11 is eligible for one credit toward the compulsory arts education graduation requirement.

Drama 11 builds on learning experiences provided in Drama 10 and focuses on the students' personal development. Beginning with foundation experiences to develop student confidence and capability, the course allows students to explore movement and speech and to combine these in a greater range of dramatic forms. Selected dramatic forms are explored in depth for presentation.

Drama 11 emphasizes the process of creating script and bringing script to production. Students will create original scripts or theatre pieces from other texts. They will also explore script, using improvisation and other dramatic forms both to understand the original text and to create new script for performance.

In Drama 11, students work toward production, but this should not be the focus. Opportunities for students to share and to present their work are provided throughout the course. The theatre component in Drama 11 includes scene creation, working with script, forum theatre, and drama symphony.

Drama 12: Theatre Arts
(academic, 1 credit)
Course Code: 004249

Note: Drama 12: Theatre Arts is eligible for one credit toward the compulsory arts education graduation requirement.

Drama 12: Theatre Arts is designed for students who have a background in developmental drama. The course is modelled after a theatre company, and students enrolled will experience all aspects of theatre production, including acting, directing, producing, and working on the technical elements such as sound, lighting, and design. A requirement in this course is that all students will write a play.

In Drama 12: Theatre Arts, students experience the collaborative nature of theatre performance. Students will develop skills and attitudes necessary for working in a performing group, such as teamwork, leadership, adaptability, and support. They will also learn how all roles in theatre are interconnected.

Music

The music education program is designed to provide a balanced, sequential, broad musical experience from primary through grade 12. The aim of the music program is to develop the student's aesthetic response, musical discrimination, and understanding of as many as possible of those diverse elements embodied in the term **music**. At all grade levels, music activities should form an integral part of as many aspects of the total education program as possible.

Elementary (Primary–Grade 6)

Music Primary–6 recognizes the need for all students to have sequential, in-depth learning experiences in music. These experiences, in turn, will enable them to develop knowledge, abilities, and critical thinking skills to express and reflect upon their ideas, understandings, and feelings through music.

Music Primary–6 includes opportunities for significant and sequential learning, providing a balance of components: Creating, Making, and Presenting; Understanding and Connecting Contexts of Time, Place, and Community; and Perceiving and Responding. All music classes should include a range of authentic music experiences, including singing, moving, listening, playing instruments, creating, and literacy. Experiential learning in music develops psychomotor, intellectual, and verbal abilities, as well as musical ability. This holistic learning process also fosters self-esteem and promotes respect for others.

Extensions to the classroom music program include opportunities for students to participate in choirs and instrumental ensembles, including band, strings, and recorder groups. These activities provide performance opportunities that not only build musical skills, but provide the learner with experiences that illustrate the co-operative nature of musical ensembles.

Junior High (Grades 7–9)

The music program at the junior high level must include a balance between three components: Creating, Making, and Presenting; Understanding and Connecting Contexts of Time, Place, and Community; and Perceiving and Responding. Students build on the skills and techniques developed in elementary school music, and extend further their understanding of the processes and understandings of music in a broader context.

Music at the junior high level should not be limited to a performance-based program only. While participation in band, string, and choral programs is an important component of a student's musical development, attention must be given to all the learning outcomes, which are based on *Foundation for the Atlantic Canada Arts Education Curriculum*. Teachers will use a particular discipline (band, strings, classroom music) as the vehicle to experience and achieve all the learning outcomes.

Two music courses are available to students in junior high: Band Instruments and Explore Music. These are elective courses at grades 7, 8, and 9, and instruction should be provided in a dedicated time slot during the regular school day, and not in conflict with courses in the student's program. Schools may experience challenges in offering Band Instruments and/or Explore Music along with other electives (visual arts, technology education, and family studies) and are encouraged to schedule the electives in such a way that students enrolled in Band Instruments or Explore Music will have opportunities to take other electives.

Band Instruments 7, Band Instruments 8, Band Instruments 9

The junior high band instruments curriculum focuses on creativity and innovation, which presents outstanding learning opportunities for students.

The band instruments courses offer a contemporary approach to band instruction. The curriculum comprises 10 sequential modules, beginning with a "sound before sight" method of instruction. Throughout the modules, students develop skills and the confidence to make their own decisions in music-making. By engaging in a collage of experiences involving active listening, music literacy, history, and a major emphasis on creating (improvisation and composition), students are dynamically involved and connected with the music.

Although these modules are designated at specific grade levels, teachers need not feel pressured to complete four in grade 7, three in grade 8, and three in grade 9. Much will depend on the entry point of the students. Some will come to junior high after completing instruction in band instruments at the elementary level, while for others, grade 7 will be their first introduction to playing a band instrument. The rate at which students move through the modules will also be dependent on the amount of instructional time assigned for teaching band instruments. It is intended that the band instruments courses be taught in two 60-minutes periods per five-day cycle.

Band Instruments 7 comprises four modules:
- Band Instruments 7: Module 1
- Band Instruments 7: Module 2
- Band Instruments 7: Module 3
- Band Instruments 7: Module 4

Band Instruments 8 comprise three modules:
- Band Instruments 8: Module 5
- Band Instruments 8: Module 6
- Band Instruments 8: Module 7

Band Instruments 9 comprise three modules:
- Band Instruments 9: Module 8
- Band Instruments 9: Module 9
- Band Instruments 9: Module 10

Explore Music 7, Explore Music 8, Explore Music 9

Explore Music 7, Explore Music 8, and Explore Music 9 focus on creativity and innovation, which presents outstanding learning opportunities for students. These courses have been developed for those students who wish to continue their music education beyond grade 6, but not necessarily in a band setting.

Curriculum for each of these courses is written in a non-sequential modular format, focusing on opportunities for students to develop essential skills in the specified discipline. The modular format provides great flexibility for scheduling, and schools may choose which modules and how many they will offer. These music modules are engaging, creative, and interactive, with a strong emphasis on performance, improvisation, and composition (using both traditional and invented notation).

Explore Music 7 comprises four modules:
- Explore Music 7: Introductory Module
- Explore Music 7: World Drumming
- Explore Music 7: Popular Music of the 50s and 60s
- Explore Music 7: The Art of Guitar

Explore Music 8 comprises four modules:
- Explore Music 8: Introductory Module
- Explore Music 8: Superstars of the 70s and 80s
- Explore Music 8: Voices of the Drum
- Explore Music 8: Following the Steps of Heroes and Legends (guitar)

Explore Music 9 comprises three modules:
- Explore Music 9: Singers/Songwriters
- Explore Music 9: Music and Movement
- Explore Music 9: Music and Theatre Workshop

Senior High (Grades 10–12)

The high school music program comprises five courses: Music 10, Music 11, Music 12, Advanced Music 11, and Advanced Music 12.

The intent of the high school music program is to engage students in creative, expressive music-making processes, providing a firm foundation in skills, principles, and practices of music, and preparing them for lifelong learning in music.

Although all music courses are open to all students, it should be noted that certain skills—especially performance and perceptual skills—are sequential. The music teacher and/or the school administration, the student, and the student's parents/guardians should confer before the student enrolls in a music course beyond Music 10.

Advanced Music 11
(advanced, 1 credit)
Course Code: 009147

Note: Advanced Music 11 is eligible for one credit toward the compulsory arts education graduation requirement.

Advanced Music 11 is designed for students who are considering future music study and/or careers in the music field. The course, offered in the same classroom as Music 11, consists of compulsory modules in music-making, music literacy, and global understandings. Students will be required to perform or compose a body of solo or small ensemble work that meets stated technical requirements, work independently to complete music literacy requirements, and complete independent studies projects that link aspects of global music to music in their own lives. In addition, Advanced Music 11 consists of self-directed learning modules in which students will plan and complete modules of study based on a personal musical interest.

In order to be considered for enrolment in the course, students must submit a portfolio that shows evidence of excellence in previous music studies and exceptional ability to complete independent and self-motivated learning projects. The application process will involve the music teacher and guidance personnel.

Advanced Music 12
(advanced, 1 credit)
Course Code: 009148

Note: This Advanced Music 12 is eligible for one credit toward the compulsory arts education graduation requirement.

Advanced Music 12 is designed for students who are considering future music study and/or careers in the music field or who plan for ongoing involvement in music, though they have chosen other career paths. The course, offered in the same classroom as Music 12, consists of compulsory music-making, music literacy, and global understandings components. Students will also be required to make a connection with someone currently

working in the music field. These aspects of the course are meant to be focused according to individual plans for future music study / careers. Students will be required to perform or compose a body of solo or small ensemble work that meets stated technical requirements, work independently to complete music literacy requirements, and complete an independent global music studies project that links directly to the focus of music in their own lives. In addition, Advanced Music 12 consists of self-directed learning projects that students will design, based on the direction that is planned for their post-secondary music involvement.

In order to be considered for enrollment in the course, students must have successfully completed Advanced Music 11 or submit a portfolio that shows evidence of excellence in previous music studies and exceptional ability to complete independent and self-motivated learning projects. They must also submit a Proposal for Study portfolio within the first two weeks of the Music 12 course (See Appendix F: The Application Process of *Music 12*). The application process will involve the music teacher and guidance personnel.

Music 10
(academic, 1 credit)
Course Code: 009004

Note: Music 10 is eligible for one credit toward the compulsory arts education graduation requirement.

Music 10 recognizes the importance of offering a program that provides opportunities for the experienced musician as well as for those with limited or no prior musical training. The Music 10 curriculum demonstrates an understanding of and appreciation for the variety of abilities of the students in the music class and focuses on

- expanding each student's knowledge base
- building skills in music to provide students with the necessary tools for self-expression
- extending the range of music strategies each student uses to construct meaning
- extending the range of situations that each student can create, interpret, and respond to
- providing consistent challenge and support to enable students to grow beyond their current level of creativity to one of increasing experience and maturity

This course may be delivered through a variety of disciplines. Many music programs at the high school level will focus primarily on music-making in an instrumental music setting, such as a band or string ensemble. By offering Music 10 with a focus on choral singing or guitar playing, for example, students with limited musical experiences will achieve the outcomes for the course. Other programs may use specific community interests such as traditional instruments or rock ensembles to achieve course outcomes. Whatever approach to Music 10 is used, attention will be given to all three understandings and processes of the arts, which include

- Creating, Making, and Presenting
- Understanding and Connecting Contexts of Time, Place, and Community
- Perceiving and Responding

Music 11
(academic, 1 credit)
Course Code: 009005

Note: Music 11 is eligible for one credit toward the compulsory arts education graduation requirement.

Music 11 builds on the learning experiences provided for students in Music 10 and strives for a high level of musical understanding and achievement. Like Music 10, this curriculum can be taught through a variety of approaches. In all approaches, it is important for students to have experiences in listening, performing, and composing, regardless of their musical proficiency. These aspects are embedded in the outcomes that are grouped under three strands: Creating, Making, and Presenting; Understanding and Connecting Contexts of Time, Place, and Community; and Perceiving and Responding.

In Music 11, students are given opportunities to explore in greater depth the skills, techniques, and technologies introduced in previous years, and to begin to specialize in areas of particular interest. More importantly, they are able to explore career paths and access community resources. These opportunities contribute to the student's aesthetic, social, emotional, and intellectual development and expand their career opportunities.

Music 12
(academic, 1 credit)
Course Code: 009006

Note: Music 12 is eligible for one credit toward the compulsory arts education graduation requirement.

Music 12 involves students in expanding the breadth and depth of the their musical understanding. This will be accomplished through in-depth study of three components:
- ❖ Music Making (Performance, Improvisation, and Composition)
- ❖ Music Literacy (Theory/Music Writing and Aural Skills)
- ❖ Listening and Research (Global, Western, and Popular Music)

Students entering Music 12 should have a solid foundation in the skills and techniques necessary to participate successfully in a performance setting, including solo / small ensemble and large ensemble. Students at this level should achieve a minimum equivalent to Royal Conservatory Grade 6. For many students, Music 12 may provide their last formal music instruction. Conversely, some students will use Music 12 as a springboard to post-secondary education. In both cases, a finely developed ability to speak, perform, sing, play, and write about music will emerge.

Visual Arts

Elementary (Primary–Grade 6)

Visual arts is part of the core program in grades primary to 6 inclusive. *Visual Arts Primary–6* (2000) provides guidelines for the visual arts curriculum described below. This curriculum provides opportunities for all students to make, look at, and reflect upon art as they gain understanding of new and magical worlds. The curriculum

outlines a cumulative and sequential learning process designed to stimulate and develop creative and intuitive thought.

The elementary visual arts program provides students with opportunities to interact with sensitivity to and respect for their own art and that of others, to show appreciation for different ways of perceiving and knowing, and to recognize and critically respond to the role of the media in their lives and communities. Students work both independently and collaboratively to solve problems and respond to ideas and experiences by making and examining visual art. Activities might include painting, drawing, sculpting, and weaving, and exploring puppetry, multimedia, printmaking, textiles, and design. Drama, movement, and music may be incorporated as well.

The curriculum emphasizes the importance of learning about and through the arts. While opportunities are offered for ongoing, sequential instruction, the curriculum stresses the importance of infusing visual arts throughout the elementary school program. The importance of continuous, reflective conversation and collaborative assessment is also highlighted.

In grades primary to 3, students have opportunities to express personal feelings and ideas through exploration of a variety of materials and techniques and to develop their understanding of the rich variety of art forms that exists across time and culture. The curriculum invites learners to share thoughts, ideas, questions, and points of view as they examine the social, cultural, and historical influences on art work and artists in local and global contexts.

In grades 4 to 6, more sequential instruction in art-making techniques, technologies, materials, and equipment enables students to build upon and apply their skills and understandings. Students investigate artists' styles, intentions, approaches, and lives as they refine and articulate their own responses through making and examining art.

Junior High (Grades 7–9)

Visual Arts 7, Visual Arts 8, and Visual Arts 9 offer a learner-centred approach, providing opportunities for all students to experience, understand, and value visual arts within a supportive and nurturing environment. Students are engaged emotionally, physically, intellectually, imaginatively, aesthetically, and socially as they explore various media as a unique and powerful means of constructing personal meaning and communicating.

Visual Arts is an elective course at the junior high level. Curriculum for each of these courses is written in a non-sequential modular format, focusing on opportunities for students to develop essential skills in the specified media. The modular format provides great flexibility for scheduling, and schools may choose which modules and how many they will offer. Schools may experience challenges in offering visual arts along with other electives (band instruments, music, technology education, and family studies) and are encouraged to schedule the electives in such a way that students enrolled in Visual Arts will have opportunities to take other electives.

Visual Arts 7 comprises three modules:
- ❖ Visual Arts 7: Mixed Media
- ❖ Visual Arts 7: Painting
- ❖ Visual Arts 7: Drawing and Printmaking

Visual Arts 8 comprises four modules:
- ❖ Visual Arts 8: Introduction to Drawing
- ❖ Visual Arts 8: Introduction to Design and Technology
- ❖ Visual Arts 8: Relief—The Bridge to Sculpture
- ❖ Visual Arts 8: Sculpture—Construction and Assemblage

Visual Arts 9 comprises three modules:
- Visual Arts 9: Painting with Acrylics
- Visual Arts 9: Contemporary Art Trends
- Visual Arts 9: Nature and the Built Environment

Senior High (Grades 10–12)

The high school visual arts program comprises five courses: Visual Arts 10, Visual Arts 11, Visual Arts 12, Advanced Visual Arts 11, and Advanced Visual Arts 12.

The aims of the high school art program include the development of perception and awareness; skill and confidence in creating, making, and presenting art; an understanding of art in the contexts of time, place, and community; and the ability to respond to their own art works and the art works of others.

Advanced Visual Arts 11
(advanced, 1 credit)
Course Code: 001078

Note: Advanced Visual Arts 11 is eligible for one credit toward the compulsory arts education graduation requirement.

Advanced Visual Arts 11 is for students who are enrolled in Visual Arts 11 or Design 11 who, through their rigour and passion for art-making, have demonstrated an outstanding commitment to the visual arts. The successful candidates are serious about art-marking and have the ability to work independently. Through this largely self-directed program, students will have the opportunity to explore modes of art production and to begin to create a body of work that may be applied to a high school exit portfolio.

Advanced Visual Arts 11 has four compulsory components, which may run concurrently, as the course is designed to be a holistic and authentic studio experience for students. The modules include:

- *Body of Work:* In this unit, students will develop drawing skills, exploring various media and subjects. There will be an emphasis on the capacity to develop and articulate thoughtful ideas and to become articulate and informed in art history, theory, and contemporary art studies.
- *Sketchbook/Journal:* This is a student-created resource aimed to support and explore conceptual, observed, and other aesthetic ideas. Students are encouraged to keep this with them at all times as a virtual extension of themselves. The journal should also keep record of self-directed research into ideas, art movements, and various artist's works.
- *The Final Exhibition:* This may be a solo or group exhibit, students are encouraged to compose the exhibit and to ideally host it off campus.
- *Community Links Module:* Students create a personal art work under the mentorship of a professional artist in their community.

Admittance to Advanced Visual Arts 11 is reserved to students who have earned a Visual Arts 10 credit and can exhibit the skills and commitment required to succeed in this program. The completion of summer portfolio of works that demonstrate rigour and advanced creative and technical abilities is recommended (i.e., complete two art works, one assigned and one elective, to serve as a tool to determine eligibility).

Advanced Visual Arts 12
(advanced, 1 credit)
Course Code: 001080

Note: Advanced Visual Arts 12 is eligible for one credit toward the compulsory arts education graduation requirement.

Advanced Visual Arts 12 is for students who are enrolled in Visual Arts 12 who, through their rigour and passion for art-making, have demonstrated an outstanding commitment to the visual arts. The successful candidates are serious about art-marking and have the ability to work independently.

Advanced Visual Arts 12 challenges students and propels them to go beyond the outcomes in Visual Arts 12 as they engage more deeply in studio practice. As such, successful Advanced Visual Arts 12 students will thoroughly complete these components:

- *Body of Work:* Students are expected to independently develop all of the projects in their portfolios. There will be a demonstration of a global referenced cultural understanding in at least one of their five modules. Art historical studies are also an important aspect of this component.
- *Artist's Journal or Sketchbook:* A visual diary of drawings, reflections, research, and writing. Advanced Visual Arts 12 students are expected to develop a personal artist statement and start a personal artist curriculum vitae as part of their writing.
- *Observational Drawing:* A discipline of drawing and rendering forms from observed material.
- *Community Links:* A partnership between students and artists, arts organizations, or related businesses.
- *Final Exhibition:* The Advanced Visual Arts 12 students are expected to exhibit an independent art show of their work.

Admittance to Advanced Visual Arts 12 is open to students who have previously earned at least one high school visual arts credit and can demonstrate to their teacher that they have the skills and commitment required to succeed in this program. The completion of a summer portfolio of works that demonstrate rigour and advanced creative and technical abilities is recommended (i.e., complete two art works, one assigned and one elective to serve as a tool to determine eligibility).

Visual Arts 10
(academic, 1 credit)
Course Code: 001004

Note: Visual Arts 10 is eligible for one credit toward the compulsory arts education graduation requirement.

Visual Arts 10 offers students a foundation in visual art-making, art history, and cultural studies, and the development of skills in perception and critical reflection. In this program, students will create art through a wide range of media including drawing, painting, sculpture, and printmaking. Students may also learn through photography, digital media, ceramics, or textiles. Visual Arts 10 aims to enhance the creative skills of all students, from the novice to the experienced young artist.

Visual Arts 11
(academic, 1 credit)
Course Code: 001005

Note: Visual Arts 11 is eligible for one credit toward the compulsory arts education graduation requirement.

Visual Arts 11 expands on the skills learned in Visual Arts 10. Students will assume increased ownership of their art education, creating art of greater personal relevance, sophistication, and intensity. Students will also learn to clearly articulate perceptions of their own art as well as the art of their peers, popular media imagery, and of art masters. Students will enhance their capacity to draw and respond to a range of visual and conceptual subjects while also engaging with greater depth, a range of wet and dry media, digital media, sculpture, and a variety of elective media. Further, Visual Arts 11 exposes students to studies in art history, contemporary art, and art theory.

Visual Arts 12
(academic, 1 credit)
Course Code: 001006

Note: Visual Arts 12 is eligible for one credit toward the compulsory arts education graduation requirement.

Visual Arts 12 leads students to becoming independent young artists who approach their physical and social world with a sense of critical and creative inquiry. Along the way, students will have the opportunity to engage in a variety of projects; some of which are teacher-directed and others are student-directed. The breadth of projects should allow each student to work through a range of media and aesthetic ideas while also gaining depth in a particular area of focus. Students should also examine and respond to the art and visual ideas of others, art history and art from various cultures, art theory, and contemporary studies, particularly in relation to how it may reflect their own work and/or life experiences. Students should develop a portfolio that models the best of the depth, breadth, and quality of their work. A public exhibit of student work is also encouraged.

Other Arts Education Courses

Cultural Industries 11
(academic, 1 credit or ½ credit)

Course Codes: 001055 (11, 1 credit)
001056 (11A, ½ credit)
001057 (11B, ½ credit)

Note: Cultural Industries 11 course is an elective course and does not satisfy the compulsory arts education graduation requirement.

The Cultural Industries 11 curriculum is designed to help students consider the ways they might apply the knowledge, skills, talents, and interests fostered by their learning in arts courses. To extend this learning, Cultural Industries 11 curriculum provides opportunities for students to deepen their understanding of the role of arts in their community and the economy. By exploring the arts and cultural community in Atlantic Canada, students are able to identify the opportunities that are offered by current trends in the cultural industries.

The term **cultural industries** refers to businesses involved in creating cultural products that express ideas or values, provide entertainment, or have a functional or decorative use. Their markets or audiences may be local, regional, or worldwide. People active in this sector include those involved in design, visual arts, live performance, film and video production, sound recording, production crafts, and publishing.

Canada's cultural industries represent a major portion of the Canadian economy and exert a profound influence on many aspects of Canadian life.

Cultural Industries 11 presents a unique opportunity to take learning beyond the classroom to include the community and workplace. Moreover, it offers students an entrepreneurial experience in the cultural industries.

Design 11

Note: See Technology Education. Design 11 is available as a full credit or half-credit course. It does not satisfy the compulsory arts education graduation requirement. Design 11 is eligible for one credit toward the technology graduation requirement.

Film and Video Production 12

Note: See Technology Integration and Information and Communication Technology Courses. This course is an elective course and does not satisfy the compulsory arts education graduation requirement. Film and Video Production 12 is eligible for one credit toward the technology graduation requirement.

Multimedia 12

Note: See Technology Integration and Information and Communication Technology Courses. Multimedia 12 is available as a full credit or half-credit course. It does not satisfy the compulsory arts education graduation requirement. Multimedia 12 is eligible for one credit toward the technology graduation requirement.

Curriculum Documents

Advanced Music 11 and *Advanced Music 12* (Draft, 2008)
Advanced Visual Arts 11 and *Advanced Visual Arts 12* (Implementation Draft, 2008)
ArtsLinks, Grades Primary–6 (forthcoming)
Band Instruments 7 (Implementation Draft, 2009)
Band Instruments 8 (Implementation Draft, 2010)
Band Instruments 9 (Implementation Draft, 2011)
Cultural Industries 11 (2000)
Dance 11 (1999)
Design 11 (2000)
Drama 10 and Drama 11 (1999)
Drama 12: Theatre Arts (Implementation Draft, 2008)
Explore Music 7 (Implementation Draft, 2009)
Explore Music 8 (Implementation Draft, 2010)
Explore Music 9 (Implementation Draft, 2011)
Film and Video Production 12 (2003)
Foundation for the Atlantic Canada Arts Education Curriculum (2001)
Multimedia 12 (Draft, 2008)
Music 10 and Music 11 (Draft, 2008)
Music 12 (Implementation Draft, 2008)
Music Primary–6 (2002)
Visual Arts 10 and Visual Arts 11 (2011)
Visual Arts 12 (Implementation Draft, 2008)
Visual Arts 7 (Implementation Draft, 2009)
Visual Arts 8 (Implementation Draft, 2010)
Visual Arts 9 (Implementation Draft, 2011)
Visual Arts Primary–6 (2000)

Business Education

Business education courses help students to gain an understanding of business concepts, and provide a foundation for students who wish to move on to further study and training in specialized areas such as accounting, information and communication technology, management, marketing, and entrepreneurship. All students will eventually become engaged in business environments on some level, and will benefit from an understanding of business activities, roles, and skills. Business education courses also provide practical skills for those who wish to move directly into the workplace.

Senior High (Grades 10–12)

Accounting 11
(academic, 1 credit)
Course Code: 002357

The aims of the high school accounting courses are as follows:
- To develop in students an understanding of accounting principles and concepts encountered in business and personal activities
- To provide a sound foundation for additional study
- To help students become acquainted with the principles, applications, and importance of data processing in accounting procedures

Knowledge of accounting principles and practices is fundamental to careers in business and can help students develop skills in analysis and decision making that will serve them well in other careers.

Students of Accounting 11 will acquire the language used in business as it relates to financial transactions and management of money, recording the flow of money on balance sheets, and dealing with banking. Accounting activities will introduce students to business accounting practices and present them with practical experiences that will help them refine their career plans.

Accounting 11 modules include: Beginning the Accounting Cycle; Completing the Accounting Cycle; Cash Control and Banking; Subsidiary Ledgers; and Careers in Accounting.

Accounting 12
(academic, 1 credit)
Course Code: 002003

Recommended Prerequisite: Accounting 11

Accounting 12 provides a context in which students may
- become skilled, critical users of financial information
- become aware of and respect ethical, social, and legal implications of following Generally Accepted Accounting Principles (A set of consistent rules used by accountants.)
- construct documents that accurately and effectively communicate financial information
- become contributing and collaborative members of a work culture

Accounting 12 consists of five modules:
- Module 1: The Accounting Cycle for a Merchandising Company
- Module 2: Journalizing Using Special Journals
- Module 3: Payroll Accounting
- Module 4: Financial Analysis
- Module 5: Forms of Business Ownership

Business Management 12
(academic, 1 credit; open, 1 credit)
Course Codes: 002345 (academic)
002346 (open)

Business Management 12 is designed to be offered as either an academic credit (002345) or an open credit (002346).

Business Management 12 is designed to reflect change in economic and business environments and to develop students' analytical, problem solving, and communication skills through an understanding of how companies operate and are managed from both employer and employee perspectives. The course focuses on active, experiential learning and on developing the knowledge, skills, and attitudes required to identify opportunities and meet the challenges of the business environment.

The Business Management 12 curriculum is designed to meet diverse learning needs, to support individualized programs, and to promote self-directed learning. Teachers can adapt and modify learning activities and use a range of resources to accommodate different ability and interest levels. A wide variety of scenarios and management decisions emerge from study of business issues and of the manager's role in different companies.

Business Management 12 comprises four units: The Management Environment, Managing Business, Managing Change, and Independent Research.

By the end of the course, students will be expected to
- demonstrate a clear understanding of the business environment in which Canadian firms currently operate and identify the variables and complexities that affect managerial decision making
- demonstrate a clear understanding of the manager's role and recognize their own and others' management characteristics and potential
- demonstrate an understanding of the role of technology and its application to management
- demonstrate communication and interpersonal skills required in the modern work environment
- apply management principles to a wide range of enterprises and situations
- articulate the impact of social, economic, and technological change on management attitudes and principles
- identify opportunities to apply management concepts and principles to personal and career situations
- investigate and report on an issue in the work environment

Business Personnel Development 12
(open, 1 credit)
Course Code: 002008

Business personnel development is the key element in any business program for it integrates the learning from other business courses. The course includes modules on professional image development, technical and human resource development, and workplace environment and provides field experience simulations.

Business Technology 11
(academic, 1 or ½ credit)

Course Code: 002354 (11, 1 credit)
002355 (11A, ½ credit)

Note: Business Technology 11 is eligible for one credit toward the technology graduation requirement.

Modern workplaces increasingly expect employees to be competent producers of a variety of business documents to convey concepts and information.

Business Technology 11 will provide students with opportunities to learn the principles and practices of document production and become skilled, critical users of information and communication technology. Students will become aware of and respect ethical, social, and legal implications of document production as they learn the production and manipulation of documents to manage and communicate information and ideas. At the same time, they will be able to relate their learning to career pathways and further refine their career and education plans.

Business Technology 11 modules include: Touch Keyboarding; Document Processing; Spreadsheets; Desktop Publishing; Business Technology Fundamentals.

Students completing Module 1: Touch Keyboarding, and Module 2: Document Processing, may receive a half credit. All five modules are required for a full credit.

Business Technology 12
(academic, 1 credit)

Course Code: 002358

Note: Business Technology 12 is eligible for one credit toward the technology graduation requirement.

Business Technology 12 builds on the skills acquired in Business Technology 11. Students will use advanced features of word processing, desktop publishing, database, and spreadsheet software to complete complex assignments. They will use presentation software to create slide-show presentations. An important aspect of document production is the development of web pages. Students will explore a variety of software choices for web page design and examine the issues of online safety and ethical Internet practices.

Business Technology 12 modules include: Advanced Document Processing / Desktop Publishing; Database Management Systems; Presentation Software; Advanced Spreadsheet Applications; Software Integration and Website Exploration/Evaluation; Computer Safety and Emerging Technologies.

Curriculum Documents

Accounting 11 (Draft, 2010)
Accounting 12 (Draft, 2011)
Business Management 12 (2003)
Business Technology 11 (Draft, 2009)
Business Technology 12 (Draft, 2011)

English Language Arts

One of the major aims of the schools of Nova Scotia is to produce graduates who are thinking, articulate, literate people. It is expected that graduates will be able to communicate effectively and confidently in personal and public contexts for a variety of purposes and through a variety of means and media and that they will be comfortable using language to explore and construct meaning.

Throughout their school career, students should expand and extend their repertoire of language strategies and skills for learning and for communication. While language experiences in all subject areas contribute to the multifaceted development of students as language users, the English language arts program, in particular, expands the communication potential of all students.

The program should provide a range of learning experiences engaging students in the purposeful use of language to

- think and learn
- communicate effectively and clearly with a range of audiences for a variety of purposes
- gain, manage, understand, and evaluate information
- explore, respond to, and appreciate the power of language and the contexts of its use

Students need not only to develop skills and strategies as language users but also to reflect on the learning process. The English language arts program, like other curricular areas, must provide abundant opportunities for students to learn *how* to learn. By being attentive to and talking and writing about their own learning strategies, students can develop a sense of themselves as flexible, resourceful learners and provide their teachers with valuable insights into their development and needs.

Speaking and Listening

Speaking and listening are essential for language development, for learning, for relating to others, and for effective participation in society. The English language arts program should develop students' understanding and effective use of oral language and enhance their capacity to express themselves in formal and informal situations, adapting style and response to audience and purpose.

It is important that students learn to

- use talk in small and large groups to explore, extend, clarify, and reflect on their thoughts, ideas, feelings, and experiences
- communicate information and ideas effectively and clearly
- interact with sensitivity and respect, considering the situation, audience, and purpose

Focused small-group talk is an essential element of English language arts classrooms. In balance with large-group and individual learning experiences, the program emphasizes a variety of paired and small-group activities in which students may practise and develop their language fluency.

In addition to promoting group interaction and collaborative learning experiences, the program must provide ample opportunities for students to develop an understanding of the structures and conventions of more formal speaking and listening contexts and to explore ways in which oral language varies according to situation.

Reading and Viewing

Reading and viewing graphic and visual messages are meaning-making processes. They include making sense of a range of representations including print, film, television, technological, and other texts. Reading print texts has always been an essential component of the English language arts program and of other disciplines and is becoming increasingly important in a complex, global, information-based, technical society.

It is important that students learn to

- use the various cueing systems (pragmatic, semantic, syntactic, and graphophonic) and a range of strategies to construct meaning
- read and view, with understanding, a range of literature, information, media, and visual texts
- interpret, select, and combine information using a variety of strategies, resources, and technologies
- respond personally and critically to a range of texts, applying their understanding of the relationships among language, form, purpose, and audience

Using Print Texts

To help students become better readers, learning experiences should reflect the belief that reading must be meaning-centred, interactive, practised, purposeful, modelled, and supported.

In addition to providing focused instruction and explicit demonstration of reading strategies, teachers need to provide opportunities for students to think and talk about how they construct meaning as they read and to pay close attention to the strategies they use to do so. It is crucial that teachers provide opportunities for students to read widely and frequently so that they will achieve fluency.

A balanced reading program includes the following components at all levels:

- Modelled reading
- Reading aloud
- Shared reading
- Guided reading
- Independent reading
- Opportunities to read books and other materials for pleasure
- Opportunities for personal response
- Opportunities for critical response

The broad range of literature read in English language arts includes classic and contemporary texts in a variety of genres, including poetry, plays, novels, short stories, essays, biographies, and autobiographies. In addition to texts relevant to the students' own lives, the range of texts should offer perspectives that contrast with their own experiences and invite readers to reflect critically on alternative ways of knowing and being. While it is important that learners study some works in detail, a key goal of the reading program is that students enjoy literature and explore diverse works independently.

Using Information, Media, and Visual Texts

Students live in a culture increasingly dominated by images, both moving and static. The English language arts program has a significant role to play in helping students to select, assimilate, evaluate, and control the immense amount of information and the diverse messages produced in this culture. At all levels, the program must include

experiences that enable students to interpret, evaluate, use, and create information, media, and visual texts and to become discerning and critical consumers of mass media and popular culture.

Graphic and visual messages exert a powerful influence in an increasingly high-tech society, and students need to learn how the form, style, and language of visual texts communicate and shape ideas and information. For this reason, the program includes experiences that help students to interpret visual texts, such as illustrations, charts, graphs, electronic displays, photographs, narrative and documentary films, and videos.

Writing and Other Ways of Representing

Writing is a complex developmental process involving a sophisticated set of skills that evolve slowly and unevenly throughout school. These skills are continually strengthened, refined, and extended through use and application. Teachers should enhance students' development as writers by structuring a wide variety of writing experiences and by providing encouragement.

It is important that students learn to

- use writing and other ways of representing to explore, clarify, and reflect on their thoughts, feelings, experiences, and learning and to use their imagination
- create texts collaboratively and independently, using a variety of forms for a range of audiences and purposes
- use a range of strategies to develop effective writing and other ways of representing and to enhance their clarity, precision, and effectiveness

Using writing as a thinking tool is an important component of the language arts program and of other disciplines. It is important that teachers provide abundant opportunities for students to use expressive writing as well as transactional and poetic writing. Students should be provided opportunities to write daily.

Learning through Drama

Drama can be a powerful medium for language and personal growth and should be an integral part of the interactive language arts program. Teachers should use drama to enhance learning in a variety of ways that include the following:

- As a collaborative social activity that allows students to explore ideas through improvisation and role-play
- As a response to literature and to media texts
- As a vehicle for involving students in decision making, problem solving, verbal interaction, mime, movement, and group dynamics
- As a springboard for language exploration through role-play that allows learners to use language outside their normal range
- As an opportunity for learners to try on roles to explore identities
- As a way to explore voice and point of view by writing "in role"
- As a springboard for written reflection in or out of role
- As a medium for "out-loud" thought

Drama fosters language growth across the spectrum of experiencing, expressing, and performing. Improvised drama encourages learners to make discoveries using their own language; reading aloud can help learners make discoveries using the language of others. Interpreting or performing text through role-play, movement, improvisation, shared reading, Readers' Theatre, script writing for a specific medium and other forms of

dramatization can enhance students' language growth and help them to acquire an understanding of self, of their relationship to others, and to the world of ideas.

Using Language across the Curriculum

Language is central to all learning; growth in language learning is facilitated by active involvement in experiences that are meaningful and purposeful. Thus language growth both fosters and is fostered by learning in other areas of the curriculum.

Elementary (Primary–Grade 6)

Through the elementary English language arts program, students become effective users of language for learning, for communication, and for enjoyment. The language arts program engages children in experiences that develop all the language processes: talking and listening, reading and viewing, and writing and representing in other ways. Always, the focus is on meaning.

The program is language-based, collaborative, and interactive. Through the various language processes, children develop their ability to refine their thinking and build their understanding of the world. Children need opportunities to use language for a variety of purposes: planning, speculating, predicting, organizing, storytelling, sequencing, interviewing, questioning, persuading, reporting, reasoning, criticizing, and evaluating.

Active Young Readers

Active Young Readers project in grades primary–6 focuses on the need to provide effective instruction, effective assessment, and effective intervention for all students in the classroom through concentrating on four components. They are

- Time
  - Instructional time allotment for language arts
  - Active Reading Hour: Grades Primary–3
  - Learn to Read / Read to Learn Time: Grades 4–6
- Resources
  - Learning resources for read-aloud, shared reading, guided reading, and independent reading
  - Resources for classroom assessment of reading development
  - Professional resources
- Reading Recovery

For more information on Active Young Readers P–6, see *Literacy Success, Active Young Readers: Grades Primary–6, Background Paper*, May 2002.

For more information, visit the Active Young Readers website at http://ayr.EDnet.ns.ca .

Succeeding in Reading: An Early Literacy Support Framework (2011)

School boards offer Succeeding in Reading: An Early Literacy Support Framework (2011) for English and Réussite en lecture for French Immersion students in grades primary to 3 to support their development in the areas of reading, writing, and oral language.

Succeeding in Reading supports the literacy development of students in grades primary and 1 who have demonstrated difficulties as readers and writers. Students identified through a variety of classroom-based assessments receive focused support. Early literacy teachers work together with classroom teachers to provide daily support to groups of 1–3 students, as determined by the literacy and learning needs of the students.

Succeeding in Reading is a support model that builds on what students know to identify solid starting points for continued literacy development. Instructional decisions are in response to individual student progress as noted through ongoing assessment. Support is designated to grade 1 students beginning early in the school year for 30–45 minutes per day and later in the school year to grade primary students for 30 minutes a day. Boards and schools schedule support according to the grade level(s) of most need. Students will continue to be supported through Succeeding in Reading to ensure that a student's literacy development reaches standards consistent with the English Language Arts curriculum.

Succeeding in Reading is grounded in the principles of a balanced literacy program and uses effective assessment and instructional practices.

Learning Experiences

The elementary English language arts program must provide abundant opportunities for learners to

- use language skills, processes, and knowledge for pursuing their own questions and for learning about topics that are useful and interesting to them
- use language to solve problems and articulate with issues that concern them
- use a range of print and non-print media to collect and convey information
- comprehend and analyze visual information and apply it to new situations
- pose questions as they read, listen, and view
- read, view, and create many different kinds of texts that draw on their imaginations
- select and use the appropriate set of language conventions for particular situations
- reflect upon how they learn and use language
- reflect on their growth as readers and writers

Speaking and Listening

A balanced language arts program provides children with abundant opportunities to develop oral language skills as they interact with their peers and engage in structured speaking activities within the classroom. By the end of grade 6, students will be expected to engage in productive discussion, making thoughtful, constructive contributions, listening critically and respectfully to the contributions of others, asking appropriate questions for clarification, and defending their own ideas with supporting evidence.

Reading and Viewing

The language arts program provides children with experiences that enable them to see themselves as successful readers and to value reading. Children require access to texts that they can read easily and that reflect their interests and language as well as texts that challenge them to increase their fluency. Explicit reading instruction is essential in assisting children to develop a full range of reading strategies. A wide variety of visual texts is also essential, both as supports for print texts and as texts in their own right.

By the end of grade 6, students are expected to select and be able to read texts appropriate to their interests and learning needs. They are expected to have achieved a degree of independence in the use and integration of the pragmatic, semantic, syntactic, and graphophonic cueing systems and to be able to use and reflect on a variety of strategies to construct meaning both in literary and information texts. They are expected to respond both personally and critically to texts, demonstrating an understanding of the conventions of a variety of print and media texts and genres, and applying a growing range of strategies to analyze and evaluate texts for their purposes.

Writing and Other Ways of Representing

It is important that children see themselves as writers from their very first experiences and that teachers view learners' attempts in writing as developmental. Because many concepts important for reading are effectively learned through writing, experiences in which learners explore writing should be planned early in primary. Over time, learners should demonstrate increasing fluency, refinement, control, and effectiveness, as well as increasing awareness of the conventions of written language. Children should learn to use writing as a thinking tool, as well as a means to communicate their ideas, and should have numerous opportunities to write every day so that their competence as writers can grow. As well, children need opportunities to use a variety of media, such as visual representations, drama, and dance to express thoughts or ideas and to convey information.

By the end of grade 6, learners are expected to use a range of writing and presentation strategies in an increasing number of forms for a variety of purposes. In their production of written and media texts, they are expected to make informed choices in language that reflect their understanding of audience and purpose, enhance meaning, and achieve specific effects. Learners are expected to perform research writing tasks involving from three to five sources. They are expected to demonstrate a growing understanding of the conventions of written language and a commitment to bringing selected pieces of writing, as well as other representations, to final product.

Junior High (Grades 7–9)

The junior high program is language-based, collaborative, and interactive. The program is characterized by instruction that balances content and process with attention to developing students' knowledge, skills, and motivation.

Students' knowledge about language should be developed in the context of language in use, not through isolated exercises. The language arts program is an integrated program that treats skills as elements of processes and processes as elements of communication. The focus of the program is on enhancing students' communication capabilities. More than half of the time allotted to language arts should be spent on reading and writing activities.

The program should provide opportunities for all students to use communication, information retrieval, and information-processing technologies. Students should also make optimal use of community and school resource centres/libraries and the variety of resources they offer.

It is important that language arts classrooms provide a wide variety of reading resources that address the interests and needs of learners at each grade level. Resources should be available to support developing readers and readers whose fluency is beyond the expectation for the grade.

The junior high program emphasizes
- using talk as a tool for thinking and learning
- writing, reading, and talking about writing and reading
- using language within the context of drama
- exploring visual images and ways in which written and spoken language combine with image in visual media
- extending personal and critical responses to literature and media texts

Active Readers

The Active Readers project began in 2002 in grade 7, expanded into grade 8 in 2003–2004, and into grade 9 in 2004–2005. It builds on the strength of the former Junior High School Network Project as well as Active Young Readers, Primary–6. This project calls for a whole school focus and the co-ordination of efforts across the curriculum to strengthen literacy skills in young adolescents. It comprises four key components:
- Time
  - Instructional time allotment for language arts
  - 33% of 60 minutes daily committed to reading instruction, reading, and reading-related activities
- Resources
  - Learning resources for read-aloud, shared reading, guided reading, independent reading
  - Professional resources for teachers of english language arts, teachers of other subject areas, resource teachers, and administrators
- Professional Development
  - Effective use of instructional time
  - Effective instructional practices
  - Effective classroom assessment
  - Effective classroom intervention
  - Development of school-wide support strategies
- Support Strategy
  - Whole school focus through a mechanism such as school improvement planning

For more information on Active Readers, see *Literacy Success, Active Readers Background Paper,* October 2004.

Learning Experiences

The junior high English language arts program
- accommodates young adolescents' diverse needs and interests
- provides multiple opportunities for students to use exploratory talk and writing
- encourages increasingly sophisticated responses to reading and viewing experiences
- extends students' appreciation of literature and media texts
- develops students' awareness of their own language use and that of others in terms of its appropriateness to context, purpose, and audience
- extends students' understanding of the structures and conventions of standard English
- develops students' knowledge of terms to describe language and the way language functions in communicating meaning

- ❖ develops students' critical awareness of the ways language can reflect bias and create or reinforce gender, ethnic, or cultural stereotyping
- ❖ develops students' critical thinking, particularly in relation to reading and viewing

Study Skills and Strategies

Skills and strategies for writing and reading learned in the elementary grades are further developed in the junior high English language arts program. Teachers should help students understand that strategies learned for writing and reading one kind of text do not necessarily work with all texts; different purposes for writing and reading require different approaches.

Useful study skills and strategies include the following: clustering/webbing to stimulate thinking; predicting; skimming; highlighting; underlining; note-making; rereading; paraphrasing; summarizing; looking for relationships; using graphic organizers; creating charts and semantic maps to organize information; using reference materials; using textual aids; using context clues; reading charts and diagrams; and locating, comprehending, and interpreting written information in manuals, tables, graphs, and schedules.

The English language arts program provides learners with explicit reading instruction to develop strategies for

- ❖ reading with a purpose
- ❖ drawing upon their prior knowledge, connecting new items to items in their store of prior knowledge, and reconsidering and organizing new information in relation to their own prior knowledge
- ❖ using the pragmatic, syntactic, semantic, and graphophonic cueing systems together
- ❖ monitoring comprehension, focusing on meaning and checking themselves to see if they are understanding
- ❖ adjusting their reading rate and approach, depending on purpose
- ❖ resolving a lack of understanding, for example, rereading a portion of the text, reading on to gather additional information, using phonics knowledge to sound out a problematic word, consulting another source
- ❖ generating questions before and during reading
- ❖ identifying important concepts and recording important information about those concepts
- ❖ considering information and ideas from alternative perspectives

Knowledge about Language and Its Use

In addition to providing opportunities for experimentation and exploration, the junior high English language arts program should include opportunities for learners to study language arts as a formal discipline, to talk about specific ways in which authors craft powerful pieces of writing, and to reflect upon how authors use language.

The program emphasizes language skills of a public and social nature taught not in isolation but in real communicative and problem-solving situations. These situations require students to use language to persuade, encourage, express appreciation, argue, compare, contrast, explain and defend judgments, debate, illustrate, resolve conflicts, describe, explain, report, extend an invitation, tell a story, summarize, generate questions, or clarify meaning.

Learning experiences should enhance students' understanding of and proficiency with standard usage, including awareness of dialects and registers; levels of usage and diction; appropriate word forms; effective sentence structure; and standard spelling, punctuation, and capitalization.

As students progress, focused learning experiences in appropriate contexts should increasingly enable students to acquire a facility with language conventions and an awareness of appropriate use of these conventions. Teachers and individual students should identify particular language needs when they set learning goals.

The junior high English language arts program builds on the outcomes achieved by the end of grade six. By the end of grade 9, students are expected to articulate viewpoints in a convincing manner in speaking situations, providing appropriate support. They are expected to ask relevant questions calling for elaboration, clarification, or qualification as they examine the ideas posed by others and listen critically to assess the adequacy of the responses they receive. They are expected to participate constructively in conversation, small- and whole-group discussion and debate, using the appropriate strategies that contribute to effective talk, adapting their rate of speech, vocabulary, and sentence structure to the occasion. Learners at this stage are expected to recognize the effects of verbal and non-verbal features of language situations and show an understanding that oral language has different conventions in different situations and cultures. They are expected to demonstrate awareness of the power of spoken language to influence and manipulate and to reveal ideas, values, and attitudes.

By the end of grade 9, learners will, in addition, have read widely from a range of young adult literature, as well as literature from other parts of Canada and other countries. They are expected to use a variety of reading strategies as they read and view texts of increasing complexity. They are expected to show an understanding that information texts serve specific purposes and be able to access independently those texts required to meet their learning needs. They are expected to respond to texts in increasingly sophisticated ways as they express and support their points of view and critically evaluate texts to assess their purpose, relevance, reliability, and to identify the values inherent in them.

By the end of grade 9, learners are also expected to use a range of strategies in writing and other ways of representing to reflect, to explore and extend their thinking, and to describe their learning processes and strategies. They are expected to demonstrate effective note-making strategies and to use a variety of information sources to construct new texts. Their choices of language, form, style, and content should show an awareness of audience and purpose. They are expected to demonstrate facility in using a variety of forms of writing and other ways of representing and to understand the processes used to create these products. Their final written products should show consistent use of the conventions of written language.

Writers in Action

The Writers in Action project provides a "literacy lens" with an emphasis on writing and language study. The focus of Writers in Action is on the study of language conventions—grammar (in speech and in writing), effective sentence and paragraph construction, spelling and vocabulary development, usage, punctuation, capitalization, abbreviations, etc.

The project began in 2002 in grade 4, expanded to grade 5 in 2003, grade 6 in 2004, grade 7 in 2005, grade 8 in 2006, grade 9 in 2007, and consolidated in grades 7, 8, and 9 in 2008. In 2009 Writers in Action was introduced into grades 10 and 11, and into grade 12 in 2010.

This project calls for a whole school focus and the co-ordination of efforts across the curriculum to strengthen writing skills of all students. It comprises these key components:

- Time
  - Instructional time allotment for English language arts
- Resources
  - A writer's handbook for grade 4 and grade 9 students to use at school and at home, and additional resources for classroom writing centres—dictionaries, thesauri, and other reference-related materials. The

Writers in Action student handbook will be used as a resource by teachers for instructional purposes and as a reference tool when students are revising, editing, and proofreading their writing for clarity, effectiveness, and precision—in school or at home.
  - Professional resources for teachers of English language arts, content area teachers, resource teachers, and administrators
- Professional Development
  - Effective use of instructional time
  - Effective classroom instruction
  - Effective classroom support
  - In-service education and professional development opportunities to increase teacher expertise in the area of writing

Senior High (Grades 10–12)

The senior high English language arts program builds on the competencies students attain in the program from primary to grade 9. The focus is on balanced instruction in the three strands: speaking and listening, reading and viewing, and writing and other ways of representing. The underlying ideas of the program for grades 10 to 12 centre on students' purposeful use of the language processes to

- think and learn
- communicate effectively and clearly with a range of audiences for a variety of purposes
- gain, manage, and evaluate information
- explore, respond to, and appreciate the power of language, literature, and other texts, and the contexts in which language is used

At all levels, the program should provide learners with abundant opportunities to explore a wide variety of literary texts and visual representations, as well as texts that reflect their interests. The English classroom should provide resources for developing readers as well as learners whose reading needs require sophisticated texts. Learners may require explicit instruction in reading strategies to assist them in accessing the more challenging literary and information texts of the senior high grades. Students should also be given abundant opportunities to write during English classes, using language to think and reflect on their learning as well as to create texts of their own.

By the end of grade 12, students' use of language should reflect sophistication, competence, and maturity.

All students must take English 10 in their first senior year, the foundation year of the senior high English language arts program. During their second year, students may take either English 11 or English/Communications 11, and in their final year, either English 12 or English/Communications 12. Students enrolled in English and English/Communications work toward achievement of the same grade level outcomes; however, the courses differ in pace, scope, emphases, and resources. It should be noted that the learning experiences offered to students enrolled in English/Communications 11 should be flexible enough to allow them to enter English 12 if they choose.

Literacy Success

The Literacy Success project began in 2006–2007 at the grade 10 level, expanded to grade 11 in 2007–2008, and was introduced into grade 12 in 2008–2009. Literacy Success 10, 11, and 12 was consolidated in 2009–2010. This project calls for a whole school focus and the co-ordination of efforts across the curriculum to strengthen literacy skills of adolescents in high school. It comprises four key components:

- Time
  - Instructional time allotment for language arts
- Resources
  - Learning resources for read-aloud, shared reading, guided reading, independent reading
  - Professional resources for teachers of english language arts, teachers of other subject areas, resource teachers, and administrators
- Professional Development
  - Effective use of instructional time
  - Effective instructional practices
  - Effective classroom assessment
  - Effective classroom intervention
  - Development of school-wide support strategies
- Support Strategy
  - Whole school focus through a mechanism such as school improvement planning

For more background information on Literacy Success, see *Literacy Success 10* (2006), and *Literacy Success 11,* (2007).

Advanced English 11
(advanced, 1 credit)
Course Code: 004251

Advanced English 11 is an intensive program of study reflecting higher expectations than English 11. Advanced English 11 offers a challenging curriculum for self-motivated students with a passion for language, literature, and learning. It is designed to broaden knowledge; hone skills; and foster initiative, risk-taking, and responsibility. These attributes are developed in an environment that promotes both independent and collaborative learning. Advanced English 11 is characterized by enriched content and extended curriculum outcomes. Learning experiences in Advanced English 11 focus on in-depth treatment of selected topics and sophisticated texts, independent learning and reflection, extended research projects, creation of texts, and interrelated learning experiences.

Advanced English 11 is characterized by additional content and curriculum outcomes that expand and extend learning in both theoretical and applied aspects of the subject area. Learning experiences in Advanced English 11 focus on in-depth treatment of selected topics, independent learning and reflection, extended research projects / case studies, and critical and cultural literacies. This course will be taught in both in-class and online contexts, and will make effective use of information and communication technology and electronic resources for learning.

Advanced English 12
(advanced, 1 credit)
Course Code: 004252

Recommended Prerequisite: Advanced English 11

Advanced English 12 is an extension of Advanced English 11, and preparation for further post-secondary study.

Advanced English 12 is characterized by additional content and curriculum outcomes that expand and extend learning in both theoretical and applied aspects of the subject area. Learning experiences in Advanced English 12

focus on in-depth treatment of selected topics, independent learning and reflection, extended research projects / case studies, and critical and cultural literacies. This course will be taught in both in-class and online contexts, and will make effective use of information and communication technology and electronic resources for learning.

Advanced English 12 is an intensive program of study reflecting high expectations and offers a challenging curriculum for self-motivated students with a passion for language, literature, and learning. It is designed to broaden knowledge, hone skills, and foster initiative, risk-taking, and responsibility. These attributes are developed in an environment that promotes both independent and collaborative learning.

The outcomes for Advanced English 12 are those of English 12, but with additional outcomes that place further emphasis on the development of abstract thinking, critical analysis, acute awareness of personal and cultural paradigms, and the sophisticated articulation of these foci.

Canadian Literature 12
(academic, 1 credit)
Course Code: 004166

Note: Canadian Literature 12 is an elective credit course and does not fulfill the compulsory English language arts graduation requirement. This revised course is based on the framework provided by the *Atlantic Canada Essential Graduation Learnings* and *Foundation for the Atlantic Canada English Language Arts Curriculum.*

Students who wish to take an additional senior English language arts course may take Canadian Literature 12 in addition to English 12.

Canadian Literature 12 is available as a full- or half-credit course. It has been developed in a modular structure and consists of the following four modules: Atlantic Canadian Identity (a compulsory module); Cultural/Regional Perspectives; Focussed Study (this module can be taken more than once), and Canadian Voices. Students may earn a full credit with the successful completion of four modules. A half-credit comprises a minimum of two modules. Canadian Literature 12 provides opportunities for small-group and independent learning, as well as a wide range of choices in literature, according to the interests of learners.

This course provides opportunities for students to become acquainted with a broad range of Canadian literature, to appreciate the rich literary heritage of Canada, and to reflect upon their understanding of the Canadian identity, community, and culture. Students should understand that Canada has its own complex but distinctive literary tradition.

English 10
(academic, 1 credit)
Course Code: 004084

English 10 offers learners an opportunity to consolidate their learning from their junior high years before they specialize in grade 11. The English 10 classroom offers abundant opportunities for students to read widely, to write frequently, to explore a wide range of print and visual texts, to work independently as well as collaboratively in small groups, and to design learning tasks that are of particular interest to them.

English 10 emphasizes proficiency in using oral language for a variety of purposes. Learning experiences include the following:

- Exploratory and informal talk: conversation, focused discussion with an identifiable purpose, such as brainstorming, speculating, and problem solving
- Structured activities, including symposia, panels, and interviews
- Dramatic representations: monologues, role-playing, and improvisation
- Performance of texts: individual and choral performance and readers' theatre
- Formal presentations: seminars, debates, public speaking, and reports
- Focused listening activities to interpret and evaluate ideas and information from a range of sources

The learning environment for English 10 must be flexible enough to accommodate a wide range in students' backgrounds, abilities, and interests. Within the confines of language, literature, and media texts, students are encouraged to explore topics of interest to them, with the goal of meeting their specific needs and interests and growing toward autonomy. This range of learning experiences enables students to reflect on their own learning strategies as they become independent learners.

English 10 Plus
(academic, 2 credits)

Course Code: 004084 (English 10)
004247 (English 10 Plus)

English 10 Plus follows the English 10 curriculum but is presented over 220-hours supporting students who require additional time for learning and teaching in developing English language arts skills. English 10 Plus is a two-credit course, providing students who successfully complete the course with one English credit (English 10—Course Code 004084) and one elective credit (English 10 Plus—Course Code 004247) at the end of the school year.

Through English 10 Plus, students will have extended opportunities to increase their literacy skills.

A key feature of the course will be an emphasis on student-centred, active learning. Students will have extended opportunities to meet the English language arts curriculum outcomes needed to engage fully in the learning process in order to develop their strategies and to strengthen their skills in each of the strands of English language arts.

Students enrolled in English 10 Plus will write the English 10 Nova Scotia Examination in June 2014.

English 11 and English 12
(academic, 1 credit each)

Course Codes: 004162 (11)
004165 (12)

English 11 and English 12 are intended for students whose goals include post-secondary study. While these courses emphasize literary texts, students should be provided opportunities to select their own texts for independent study and small-group inquiry. In designing learning experiences, teachers should consider ways that students can extend their knowledge base, thinking processes, learning strategies, self-awareness, and insights. Students should also be provided opportunities to use the curriculum outcomes framework to design their own learning experiences that they may undertake individually or with learning partners.

Learning experiences should enable students to
- ❖ study and give detailed accounts of complex and sophisticated texts and issues
- ❖ be perceptive and analytical in making sophisticated adult judgements
- ❖ be critical readers of literary texts
- ❖ be critical viewers
- ❖ express themselves precisely when writing for often complex purposes
- ❖ be capable editors of their own and others' writing
- ❖ communicate confidently and effectively in the formal style and language required by some situations
- ❖ demonstrate control of language processes

The learning environment for English 11 and English 12 must provide opportunities for students to work in a variety of grouping arrangements, including both mixed-ability and similar-ability co-operative learning groups, interest groups, and partner learning.

English 12: African Heritage (academic, 1 credit)

Course Code: 004258

English 12: African Heritage, an academic course, addresses the full range of English 12 curriculum outcomes while encompassing the experience, study, and appreciation of language, literature, media, and communication from an African heritage perspective.

English 12: African Heritage fulfills the grade 12 English language arts requirement for graduation. Like their counterparts enrolled in English 12, students enrolled in English 12: African Heritage will write the NSE English 12. English 12: African Heritage is to be accorded the same recognition by universities and other post-secondary institutions as English 12.

English 12: African Heritage will engage students in experiencing and examining numerous literary texts, with a major focus on African Heritage, including short fiction, the novel, poetry, spoken word, and various elements of African oral traditions. Drawing on recent advances in theory and practise that have shown the important relationship between the reader, the text, and the context, English 12: African Heritage fuses text-centred and reader-centred approaches to the study of language arts, and provides opportunities for both personal and critical response.

English 12: African Heritage provides a particular focus on writers and artists of African descent and their contributions. The writers and artists and their works, the history and culture depicted in and reflected by their works, and the ideas and values inherent therein can all contribute to the intellectual growth of our students and to their appreciation of African heritage.

English 12: African Heritage provides opportunities for students to
- ❖ experience a wide range of literature from the African consciousness
- ❖ appreciate the richness of literature rooted in African heritage
- ❖ explore and reflect upon the cultural diversity represented in African heritage literature within Africa and throughout diaspora

English/Communications 11 and English/Communications 12 (graduation, 1 credit each)

Course Codes: 004163 (11)
004164 (12)

Note: English/Communications 12 students are required to write the Nova Scotia Examination (NSE). The examination mark constitutes 30% of the student's final mark for the course.

English/Communications courses are intended for students who may need additional support in their development as readers, writers, and language users. English/Communications courses are intended to prepare students for lifelong learning by engaging them in practical and interesting learning experiences closely related to their lives and to the world they will experience as adults. These courses should be based on the interests and abilities of the students and provide support to meet their individual and diverse learning needs. At the same time, English/Communications courses should be flexible enough to allow learners to move to academic courses.

These courses focus on developing language skills necessary for the workplace. It is important that learners have abundant opportunities to engage in small-group and whole-class activities that help develop their speaking and listening skills. Learners must also have opportunities to read widely in their interest areas and to create both written and visual texts to enhance their reading and writing fluency.

English/Communications courses are intended to provide experiences that enable students to

- use language to reflect on their experiences
- think critically about the range of issues and ideas they encounter in texts
- understand the impact of media texts in their lives
- explore a range of print and visual texts
- meet the literacy demands of the outside world
- be aware of ways language can entertain, inform, and influence others
- adapt their language to suit their purposes
- extend their thinking through exploring a range of issues

The learning environment for English/Communications courses requires a variety of grouping arrangements that allow optimum opportunities for meaningful teacher-student and student-student interaction.

Technical Reading and Writing 11 (academic, ½ credit)

Course Code: 004216

Note: Technical Reading and Writing is an elective half-credit course that consists of practical language activities. It does not fulfill the compulsory English language arts graduation requirement.

Technical Reading and Writing 11 is designed for students who are planning post-secondary studies in science, technology, or engineering, as well as students who expect to train in industrial vocations such as carpentry, plumbing, or electrical work. The course centres on practical language activities related to skills and attitudes required in technical workplace situations. Students will gain an understanding of the importance of precision in technical communications.

Learning experiences should enable students to

- read and interpret written and visual technical text, applying appropriate strategies and responding in ways that indicate understanding
- produce effective technical documents with both print and visual components
- employ a variety of technologies to create and present technical documents
- collaborate and consult effectively with others, as well as work independently, in completing technical communications tasks
- speak and listen effectively in whole-class, small-group, and presentation contexts

Curriculum Documents

Active Readers Assessment Resource Young Adolescents: A Teaching Resource, Grades 7–9 (2005)
Active Young Readers, Grades 4–6 Assessment Resource: A Teaching Resource (2003)
Advanced English 11 (Implementation Draft, 2008)
Advanced English 12 (Implementation Draft, 2008)
Atlantic Canada Canadian Literature Curriculum: Canadian Literature, Grade 12 (1998)
Atlantic Canada English Language Arts Curriculum: English Language Arts, Grades 4–6 (1997)
Atlantic Canada English Language Arts Curriculum: English Language Arts, Grades 10–12 (1997)
English Language Arts Primary–3 (forthcoming)
English 10 Plus: A Teaching Resource (Implementation Draft, March 2006)
English 12: African Heritage (Implementation Draft, April 2007)
Foundation for the Atlantic Canada English Language Arts Curriculum (1996)
Literacy Success 10 (Draft, 2006)
Literacy Success 11 (Draft, 2007)
Literacy Success 12 (October 2008)
Spelling Primary–9: A Teaching Resource (2008)
Succeeding in Reading: An Early Literacy Support Framework (2011)
Teaching in Action, Grades 10–12: A Teaching Resource (2011)
Teaching in Action, Grades 4–6: A Teaching Resource (2007)
Teaching in Action, Grades 7–9: A Teaching Resource (2007)
Teaching in Action, Grades Primary–3: A Teaching Resource (2006)
Technical Reading and Writing 11 (Draft 2000)

Entrepreneurship Education

Atlantic Canada's economy is becoming more diversified and requires a greater emphasis on entrepreneurship, global competitiveness, and sustainable development. One of the challenges of the public school program is to offer students experiences that will help them respond to opportunities to participate in the economy. Students need to be aware of such opportunities, to become more flexible in their outlook, and to develop entrepreneurial spirit and initiative.

The essence of entrepreneurship is taking action. Entrepreneurship involves developing ideas for business, learning the processes of becoming an entrepreneur, and initiating, developing, and owning a business.

Entrepreneurship education

- allows students to move along a continuum from aspiration to business start-up to expansion
- focuses on personal qualities, characteristics, and attitudes that allow entrepreneurs to adjust successfully to new situations
- develops specific knowledge to ensure informed decision making
- emphasizes an experiential, learning-by-doing approach
- includes five specific pathways to success: peer group learning, mentoring, experiential learning, personal planning, and specific content knowledge

Elementary (Primary–Grade 6)

During elementary school years, entrepreneurship education emphasizes the development of personal qualities, characteristics, attitudes, and skills and provides diverse opportunities for students to explore and experiment with entrepreneurship and enterprise. Learners are encouraged to initiate and develop their own solutions to problems and to see possibilities for entrepreneurship and enterprise in their communities.

Junior High (Grades 7–9)

As students move through junior high school grades, more emphasis is placed on transferable skills. Students build on the enterprising attitudes and characteristics they have developed and add the skills as well as specific knowledge associated with entrepreneurship. The junior high program allows students to participate actively in experiential learning.

Senior High (Grades 10–12)

At the senior high school level, entrepreneurship education focuses on the personal qualities, characteristics, and attitudes; transferable skills; and specific knowledge associated with entrepreneurship.

Cultural Industries 11 provides further opportunities for students to explore entrepreneurship in the cultural industries. (See Other Arts Credit Courses under Arts Education in this section of the document.)

Entrepreneurship 12
(academic, 1 credit)
Course Code: 002098

Entrepreneurship education is fundamental to advancing the vision of a strong entrepreneurial climate. The curriculum guide and support materials for Entrepreneurship 12 describe a student-centred course that introduces entrepreneurship as a viable career option through real-world, authentic learning opportunities. Students recognize that they can create their own career path and enjoy more control over their destinies.

Entrepreneurship 12 focuses on active, experiential learning and on developing the attitudes, skills, and knowledge required to meet the many opportunities and challenges of being an entrepreneur. The course comprises three components: action, theory, and business planning.

Students apply what they learn to organize, operate, and manage activities/ventures in four strategic areas:
- School-based activities
- Business venture(s)
- Community-based learning
- Mentoring

As well as the 110 hours of classroom time, students are expected to complete a minimum of 50 hours of entrepreneurial activities outside the classroom.

Curriculum Document

Entrepreneurship 12 (Implementation Draft, May 2003)

Family Studies

The central purpose of the family studies program is to enhance the quality of life for individuals and families in Canada and throughout the world. In this program, students are encouraged to identify, clarify, examine, and deal with significant concerns they encounter in their daily lives. They are given opportunities to make reasoned and sound judgments as they consider their decisions in terms of consequences to self, family, and society.

Teachers should encourage students to forge links between theory and practice, that is, between the content and learning processes used in the classroom and the significant problems students encounter in their everyday lives. Teachers can help forge those links in the following ways:

- by recognizing that the needs of learners differ according to their maturity, developmental stage, ability level, and learning style and by adapting the lesson content and learning activities to meet these differing needs
- by helping students become engaged in dialogue and discussion in which they can explore and discover meanings significant to themselves
- by providing opportunities for students to engage in a variety of problem-solving activities, both technical problem solving and those requiring interpretation and critique

Family studies addresses "perennial practical problems." These are problems families face in their everyday lives that require decision and action; they recur from generation to generation. "What should be done to provide your family with nutritious meals" is an example of such a problem. Solving perennial practical problems requires reasoned judgment rather than a system of dogmatic beliefs, habits, or unexplained rules.

A systems model may help students identify and clarify practical problems. It explores problems in terms of the relationships among individuals, families, and their social, economic, and political environments. For example, a lesson concerning nutrient intake in children might explore how food habits are influenced by the resources available to the family from the larger environment, by the family's use of the resources, and by the processes and values the family members use in making decisions.

This model provides a means for understanding the complexity of family problems and the reciprocal relationships between families and society.

The family studies curriculum for Nova Scotia was developed with the vision of providing students with the following skills:

- Being an informed consumer
- Applying technology skills to daily living
- Appreciating Canadian family culture and diversity
- Connecting with community
- Acquiring and managing personal resources
- Recognizing life/work career opportunities

Junior High (Grades 7–9)

The new junior high program for family studies comprises three courses, one at each grade level. Each course requires 30 hours of instructional time (approximately 3.5% of the time allotment).

The outcomes in all three courses expect students to develop the basic skills defined in each. These skills are best developed and assessed through practical experiences in the laboratory as described in the curriculum guide. Due to the expectation of skill development and the concern for laboratory safety, it is recommended that maximum class size be limited to 20–24 students, depending on the facility.

The junior high family studies program comprises three areas:

Textile Arts and Design 7	Food and Nutrition 8	Child Studies 9
Unit 1: Textile Arts and Design	Unit 1: Food Preparation Basics	Unit 1: Nurturing Growth and Development
Unit 2: The Clothing Consumer	Unit 2: Food for Healthy Living	Unit 2: Nutrition for Children
Unit 3: Textile Production Basics	Unit 3: The Food Consumer	Unit 3: Learning through Activity
	Unit 4: The Power of Food	
	Unit 5: Nova Scotia Food Products	

Textile Arts and Design 7

The textiles component of the junior high program introduces students to survival sewing skills as well as basic consumer strategies related to their clothing budget. Textile Arts and Design 7 comprises three units:

- Unit 1: Textile Arts and Design explores the skills involved in expressing oneself through textiles whether it is clothing selection, creation or by adding embellishments. Students will learn about the value of life work skills developed through textiles.
- Unit 2: The Clothing Consumer incorporates the personal management and decision-making skills necessary for acquiring, caring for, and maintaining clothing, recognizing that clothing priorities will vary with individual and family resources and preferences. An introduction to consumer knowledge if fibres and fabrics is applied to clothing and household uses.
- Unit 3: Textile Production Basics allows students to explore and develop skills with a variety of sewing tools applied to completing useful sewing projects. Students will be encouraged to use recycled textiles to create new projects for personal or household use.

Food and Nutrition 8

The food and nutrition area of family studies is designed to enable the adolescent to apply the basic principles of nutrition to food preparation. Food and Nutrition 8 comprises five units:

- Unit 1: Food Preparation Basics provides opportunities for skill development in preparing simple foods, maintaining a safe work space, and being aware of basic food safety practices.
- Unit 2: Food for Healthy Living encourages students to develop an understanding of the connections between selecting, preparing, and consuming foods that contribute to a healthy lifestyle.
- Unit 3: The Food Consumer develops an awareness of food marketing strategies, purchasing, and current trends in food production.
- Unit 4: Power of Food explores the concept that food consumption has a social, emotional, cultural, and global impact.
- Unit 5: Nova Scotia Food Products and Related Industry celebrates Nova Scotia food, our local products, our food industry, and potential opportunities for employment.

Child Studies 9

The Child Studies 9 curriculum was designed to build on and refine skills acquired in Textile Arts and Design 7 and Food and Nutrition 8 by applying the skills to meeting the needs of young children such as nutrition, interaction, guidance, and learning.

Units of study and topics include the following:

- Unit 1: Nurturing Growth and Development provides opportunities to develop care-giving skills related to children's basic needs—safety, security, guidance, and interaction.
- Unit 2: Nutrition For Children addresses the need to identify and prepare safe, healthy foods for young children in order to promote healthy lifestyles and prevent obesity.
- Unit 3: Learning through Activity encourages the selection and/or creation of age-appropriate activities, toys, and books that enhance interaction and learning.

Senior High (Grades 10–12)

Note: Family studies courses do not have prerequisites.

Family studies curriculum is based on the following strands: Food and Nutrition, Textiles, Child Studies, Housing, and Family Relationships. These strands are introduced in junior high. Skills and knowledge within these strands are further developed at the senior high level.

Senior high family studies address issues of social, political, technological, and economic importance to families. Emphasis is placed on the relationship between individuals, families, and society. Issues of social concern, environmental impact, and personal development are explored through observation, practical applications, dialogue, and research.

An understanding of community support services for individuals and families enables students to see various issues from a broad perspective. Guest speakers, visits to community agencies and institutions, opportunities to work or volunteer in community settings, or research projects on issues of community concern all help to develop the students' understanding of family issues.

The curriculum related to food preparation and textile development involves learning experiences in a laboratory setting. Due to the expectation of skill development and the concern for laboratory safety in the food preparation and textile facilities it is recommended that maximum class size be limited to 20–24 students, depending on the facility.

Grade 10

Food for Healthy Living 10
(open, ½ credit)
Course Code: 005124

Energy, growth, and health are affected by healthy food choices. Students plan and prepare meals that complement healthy life choices. The course explores how life choices and food availability affect diet, and

students will learn to identify nutrition issues that require dietary modifications. The impact of food marketing and advertising on people's food choices is addressed. Unit topics include the following:

- Unit 1: Safe Food Preparation Techniques and Production (safe food handling, prevention of food-borne illness, safe work skills)
- Unit 2: The Food Consumer (food decisions based on environmental, cultural, and economic influences)
- Unit 3: Nutrition (food choices as they impact on nutrition)
- Unit 4: Meal Planning and Preparation (factors and resources as they apply to planning and preparing nutritious meals)
- Unit 5: Food Trends and Issues (local and global food concerns)
- Unit 6: Career Pathways in the Food Industry (skills related to employment and careers in the food industry)

Food Preparation and Service 10
(open, ½ credit)

Course Code: 005123

Note: Food Preparation and Service 10 is one of the half-credit options that may be used toward the technology graduation requirement.

Through food preparation and presentation, students develop skills that may be transferred to food service skills in the workplace. Students are provided with practical experiences in food preparation and service. They look at the impact of technology on the preparation of food in the home and the workplace. Topics include Meal Planning and Preparation, Food Service and Hospitality, Food Handling Procedures, Health and Safety in the Food Industry, and Food Marketing. Unit topics include the following:

- Unit 1: Safe Food Preparation Techniques and Production (safe food handling, prevention of food-borne illness, safe work skills)
- Unit 2: Food Preparation Technology (use of tools and technology to prepare healthy food choices)
- Unit 3: Basic Menu Planning (create, budget, plan, and prepare a menu using available resources)
- Unit 4: Introduction to Food Service and Presentation (service styles, product presentation, and customer service)
- Unit 5: Food Service—Life Work Benefits (personal development of life/work skills related to food service opportunities)

Food Technology 10
(open, ½ credit)

Course Code: 005125

Note: Food Technology 10 is one of the half-credit options that may be used toward the technology graduation requirement.

Food Technology 10 is an exciting course in which students explore food technology for the home and industry. This course takes students from a historical perspective to understanding current technology and encourages them to anticipate future developments in food preparation, food preservation, and consumer practices. Each unit has both a theory and a practical component. Students sample foods prepared using various technologies and examine issues such as genetic modification, organic food production, and the impact of kitchen and industrial food technology on families and the environment. Unit topics include the following:

- Unit 1: Safe Food Preparation Techniques and Production (safe food handling, prevention of food-borne illness, safe work skills)
- Unit 2: Food Industry Technology (impact of technology on industry, consumers, and food preparation)

- Unit 3: Issues Related to Food Industry (packaging, health, environment)
- Unit 4: Careers in Food Science and Technology (explore employability skills specific to food science and technology)

International Foods 10
(open, ½ credit)
Course Code: 005126

Note: International Foods 10 is one of the half-credit options that may be combined with another course for a full family studies 10 credit.

Students "travel" on a virtual global foods tour exploring diverse historical, geographical, cultural, and nutritional components of international cuisine. The course includes discussions with community guest speakers, demonstrations, and food tasting experiences. Students examine global food issues affecting individuals, families, and communities locally and around the world. Unit topics include the following:

- Unit 1: Safe Food Preparation Techniques and Production (safe food handling, prevention of food-borne illness, safe work skills)
- Unit 2: Introduction to Global Foods (culture, diversity of diets, traditions, sensory exploration of food)
- Unit 3: Global Foods Tour (food choices, customs, geography, agriculture, tools, and equipment)
- Unit 4: Global Awareness (food supply, shortages, social action)

Textile Production 10
(open, ½ credit)
Course Code: 005127

Note: Textile Production 10 is one of the half-credit options that may be used toward the technology graduation requirement.

This course is extensively hands-on to ensure that students will develop and practise skills in working with textiles with the goal of creating personalized items. Students examine the impact of technology on the clothing consumer and the fashion industry. Technology will be used to produce textile projects and to help students develop basic skills in textile and clothing maintenance. Remodelling, redesigning, and recycling textiles encourage individual creativity and environmental consciousness. Unit topics include the following:

- Unit 1: The Informed Textile Consumer (purchase, use, care of textiles for clothing and household use, reusing, recycling)
- Unit 2: Textile Technology (safe use of tools, terminology, impact of technology on creation and use of textiles)
- Unit 3: Textile Arts and Design (creating and designing with textile products, application of elements of design)
- Unit 4: Life Work Opportunities in Textiles (apparel, production, artisan work, industry)

Grades 11 and 12

Canadian Families 12
(open, 1 credit)
Course Code: 005065

Canadian Families 12 is a full-credit course that examines the nature of families through the lens of Maslow's hierarchy of Human Needs. Using demographic information, students will explore and research the challenges faced by Canadian families and look at society's response to those challenges. The course reflects the following themes:

- Relationship Skills
- Consumerism and Financial Management
- Changing Canadian Culture
- Community Connections
- Resource Acquisition and Management
- Life/Work Skill Development

This course is developed around six units:

- Unit 1: Images of Canadian Families (historical and cultural perspectives, families today, family law, families of the future, impact of technology)
- Unit 2: The Foundation of Family Well Being (relationships, communication skills, personal wellness, financial management, family health, family and community, support systems, coping with change; Students will participate in a community service learning initiative.)
- Unit 3: Expanding Families (role of parenting in changing Canadian society, parenting decisions, community/social support systems for families with children)
- Unit 4: Transition to Independence (analyzing the needs of the young adult and the family as they transition into a new life phase)
- Unit 5: Families in Later Life (Activities will facilitate an understanding of the evolving senior population and their families; needs, relationships, expectations, and community supports are topics included in this unit.)
- Unit 6: Independent Study Project (Students will identify an issue affecting Canadian families today and research the issue from the perspective of current trends, societal and personal impact, and support systems.)

Child Studies 11
(open, 1 credit)
Course Code: 005005

Child Studies 11 is a one-year course designed to help students explore the meaning and implications of responsible parenthood and child care; to help them acquire current information regarding reproduction, pregnancy, and childbirth; to help them explore significant issues of early childhood; and to help them apply the understanding of child development to the care and guidance of children. Unit topics include the following:

- Unit 1: Parenting in Canada—Decisions about Parenthood (the decision to become a parent, parenthood alternatives)
- Unit 2: The Beginning of Parenthood (human reproduction, prenatal health, fetal development, childbirth)
- Unit 3: Human Growth and Development (identifying and understanding the development of the infant, the toddler, the preschooler)
- Unit 4: Relationships with Children (interacting, guiding, and enhancing children's development)

- Unit 5: Community Connections (accessing support services, daycare, supporting children with special needs, children in crisis)
- Unit 6: Career Connections (research careers related to working with children)
- Unit 7: Practicum—Practical Experiences with Children (in-school and/or out-of-school opportunities to interact with children)
- Unit 8: Global Connections (children of the world—their needs and challenges)

Food Studies and Hospitality 12
(open, 1 credit)
Course Code: 005132

There is a laboratory component to this course. This introductory curriculum is designed to explore food studies through a hospitality perspective. Students will have the opportunity to learn about basic food preparation skills both for personal development and for entry-level employment possibilities. Professional food presentation and service are also explored.

Students will have the opportunity to research careers in culinary. Where possible students will participate in a practicum related to the food and hospitality industry. Units of Study and topics include the following:

- Unit 1: Food/Kitchen Safety (food safety including Food Handler Certification, safe use of equipment, facility safety procedures, WHMIS training)
- Unit 2: Kitchen Literacy and Numeracy (reading, interpreting, converting and costing recipes)
- Unit 3: Professional Kitchen Organization(hierarchies, staff expectations, food presentation techniques, safe use and maintenance of kitchen tools and equipment)
- Unit 4: Food and Beverage Service Skill Development (service practices in a variety of venues, professional demeanour, menu knowledge, payment methods)
- Unit 5: Fundamentals of Cooking (practical development of basic cooking skills including healthy choices and methods, sensory evaluation of food, time and resource management)
- Unit 6: Menu Planning (exploring factors that affect menu development including target clientele, facility, availability, cost)
- Unit 7: Food for Thought (exploration of issues and trends related to the food industry)
- Unit 8: Work Experience/Job Shadow/Co-operative Education (exploration of food-related careers in the hospitality industry, including an expectation to participate in a work experience opportunity)

Housing and Design 12
(academic, 1 credit)
Course Code: 005134

Note: Housing and Design 12 is eligible for one credit toward the technology graduation requirement.

Housing and Design 12 will be taught through project-based learning and community connections. The course is designed to be practical and interactive. Assessment will include project work through which students will demonstrate their use of technology to problem solve and create a housing project. Throughout the curriculum, students will be expected to develop their knowledge of related career opportunities and artistic expression through housing applications. Units of study and topics include the following:

- Unit 1: The Housing and Design Skills Portfolio (maintained illustrating skills and knowledge developed throughout the course)

- Unit 2: Career Options related to Housing and Living Environments (research, interviews, job shadow various related employment/career opportunities)
- Unit 3: Living Spaces: Choices and Decisions (housing, consumerism, renting versus buying; budgeting for housing; building management/maintenance; ecological/environmental factors to consider; efficient design and operation; impact of technology on today's housing consumer)
- Unit 4: Innovations in Housing Ecosystems (sustainability, healthy environments, maintenance, construction materials, efficiency of layout and operation, landscaping, urban planning)
- Unit 5: Components of Housing Design and Layout (architecture, ecological design, use of technology to create efficient layout and floor plan designs)
- Unit 6: Interior Design (interior aesthetics, personal/artistic expression, principles and elements of design, selection of furnishings and interior finishes including textiles)

Textile Technology 12
(open, 1 credit)
Course Code: 005139

Note: Textile Technology 12 is eligible for one credit toward the technology graduation requirement.

There is a laboratory component to this course. Schools may approach this curriculum from a fibre arts perspective or a fashion perspective. The curriculum is designed to encourage students to develop advanced skill sets related to textile arts and technologies.

Units of study and topics include the following:
- Unit 1: Creating Fabrics (textile development and production skills such as weaving, knitting, felting, printing for a variety of applications)
- Unit 2: Elements and Principles of Textile Design (application and interpretation)
- Unit 3: Textile Construction Tools (sewing, pressing, embellishment, applying finishes/designs, pattern creation)
- Unit 4: Textile Production (application of problem-solving skills to reusing, recycling, budget management, consumer skills)
- Unit 5: Aesthetic and Cultural Appreciation (culture, industry, geography of textiles)
- Unit 6: Life Work Skills (career opportunities and personal expression related to textile industry)
- Unit 7: Independent Study (create and share a culminating textile project that illustrates their skill and knowledge development)

Curriculum Documents

Canadian Families 12 (Draft, 2012)
Child Studies 9 (Draft, 2012)
Food Preparation and Service 10 (Draft, 2012)
Food Technology 10 (Draft, 2012)
Food and Nutrition 8 (Draft, 2012)
Food for Healthy Living 10 (Draft, 2012)
Food Studies and Hospitality 12 (Draft 2012)
Housing and Design 12 (Draft, 2012)
Textile Arts and Design 7 (Draft, 2012)
Textile Production 10 (Draft, 2012)
Textile Technology 12 (Draft, 2012)

French Second Language

Core French

The aim of the Core French program is to develop the learner's ability to effectively communicate in French. At all levels, the focus is on a multidimensional curriculum that integrates communicative/experiential, culture, general language education, and language components. Core French is a compulsory course for all students in Grades 4 to 9 in Nova Scotia.

To help students develop their communication abilities, learning experiences in Core French must be relevant to the learner. Teaching materials that explore all domains of students' experiences should be included in the curriculum. These include social, physical, leisure, civic, and intellectual domains.

Culture and general language education should be integrated into every unit. Through this general language education component, students should develop an awareness of language, culture, and language-learning strategies. Language should become progressively more complex and be selected according to the language needs of learners in relation to experiences and activities. Language must be presented and practised in a literacy context.

Learners should be exposed to a variety of proficient language models, and French must be the language of the classroom. A classroom designated for French is necessary for creating and maintaining an atmosphere facilitating language acquisition. In addition, students must have access to authentic documents appropriate to their oral, reading, and writing competencies.

A variety of teaching strategies, based on a literacy approach and frequent small-group interaction, are necessary to provide maximum student collaboration. Assessment strategies should be an integral part of the curriculum and must reflect the components of a multidimensional curriculum.

It is essential that teachers of different grade levels work collaboratively to facilitate students' smooth transition from one level to another.

As a result of their cumulative experiences in the Core French program, by the end of grade 12, students should be able to

- effectively communicate in French and to interact appropriately in a variety of situations related to their interests and needs
- choose and use strategies that help both with communication in French and with their general education
- demonstrate an appreciation of Francophone cultures as well as an appreciation and understanding of Canada's multicultural context
- use certain language items in context to facilitate communication in French in a variety of situations

Elementary (Grades 4–6)

At the elementary level, Core French students are involved in activities and projects that reflect their interests, needs, and experiences. The content is organized according to the five dimensions of the communicative/experiential syllabus of the National Core French Study: civic, leisure, intellectual, physical, and social. The learning outcomes for each of the components and for the language skills—oral and written comprehension as well as oral and written production—are stated in the multidimensional curriculum. Emphasis

at the elementary level is placed on oral comprehension, communication, and interaction; however, reading and writing skills are introduced in context from the beginning of grade 4. Where possible, other subject areas should be integrated.

Assessment must reflect the multidimensional curriculum, content, and approaches, with meaningful, contextualized, performance-based tasks.

Junior High (Grades 7–9)

At the junior high level, Core French students extend their activities and learning from the elementary years. The program content continues to follow the National Core French Study syllabus. Emphasis is on using language in context with at least 60 percent of the learners' time devoted to oral comprehension, communication, and interaction.

Assessment must reflect the multidimensional curriculum, content, and approaches, with meaningful, contextualized, performance-based tasks.

Senior High (Grades 10–12)

Core French 10, Core French 11, and Core French 12 (academic, 1 credit each)

Course Codes: 007097 (10)
007098 (11)
007099 (12)

The senior high Core French program is designed to develop comprehension, communication, and interaction skills and strategies through experiential teaching materials that incorporate a variety of authentic documents. Topics, tasks, and final projects are aligned with students' experiences and interests. Suggested areas of study include the future, career plans, the media, the arts, social and technological trends, as well as Francophone cultures and multiculturalism.

The linguistic component is chosen according to the language needs of learners in relation to the tasks and projects. Emphasis continues to be placed on using language in meaningful communicative contexts. Assessment must reflect these principles, with a maximum of 25 percent of time spent analyzing the form of the language.

Integrated French

Anglophone school boards may offer an Integrated French Program that starts in grade 7 and ends in grade 12. This program integrates the curriculum outcomes of French and social studies in grade 7. This program integration will extend to grade 8 in 2012 and may eventually extend to grade 9.

In grades 7 to 9, the total amount of time allotted for the Integrated French program (French and social studies) must be equal to the total amount of time allotted for English language arts and social studies in the English program.

At the grade 10 to 12 level, the Integrated French Program must consist of Français 10, 11, and 12 courses and three other courses taught in French, as prescribed in this document. Core French courses will not be accepted for credit purposes in the Integrated French program.

Time allotment is as prescribed in the *Public School Programs* document.

Junior High (Grades 7–9)

An Integrated French language arts / social studies curriculum guide is available for grade 7. A curriculum guide for grade 8 will be developed in the near future.

Senior High (Grades 10–12)

A curriculum guide for the language arts course offered in the Integrated French program at the senior high level will be developed in the near future.

Français intégré 10
(academic, 1 credit)
Course Code: 007103

This Integrated French Language Arts course emphasizes using French for a variety of purposes. Students are engaged in speaking and listening experiences that require them to communicate information and respond orally to a variety of texts, such as conversations, interviews, documentaries, articles, poems, shorts stories, and novels. Reading and literature include articles, poems, mythology, short stories, and novels. Students are engaged in written activities through which they present information, write letters, and express the feelings about different events and situations. The course also explores other forms of viewing and representing.

Français intégré 11
(academic, 1 credit)
Course Code: 007104

In the grade 11 Integrated French Language Arts course, students continue to listen and respond to a variety of texts and to communicate orally information on various topics. Students are involved in such activities as improvisation and drama. Reading and literature include articles, biographies, poems, mythology, short stories, and novels. Writing activities include letters, tales, short stories, reports, and research papers. The course also explores other forms of viewing and representing.

Français intégré 12
(academic, 1 credit each)
Course Code: 007105

In grade 12, the Integrated French Language Arts students continue to develop their oral and listening skills in French while engaged in a wide range of activities. Reading and literature include many forms and genres, including articles, position papers, poetry, legends, shorts stories, novels, and drama. Students write informative reports, research papers, and briefs. The course also explores other forms of viewing and representing.

French Immersion Language Arts

The French immersion language arts program is designed to allow students to

- effectively communicate in French
- explore alternative forms of expression and representation
- read and to appreciate a variety of literary forms
- respond personally and critically to a variety of texts
- value French language and culture, among others
- reflect on their experiences and learnings

The outcomes for the French immersion language arts program describe what all students enrolled in French immersion programs should know and be able to do as well as the attitudes they should develop as a result of their experiences in the program. This implies that all students can be successful and learn. However, each child learns at his or her own pace, and language learning does not occur in a linear fashion; it is recursive in nature. Students will arrive at different stages at varying times during their learning process.

Valuing French language and culture constitutes an integral part of all the activities of the French language arts program. In fact, it forms the backdrop of the entire program. As a result of their cumulative experiences in the French immersion language arts program, students should be able to

- demonstrate a positive attitude towards the French language and towards Francophone communities in a national and international context
- demonstrate an understanding of and a respect for a diversity of cultures
- communicate in a variety of situations to respond to their individual needs
- use appropriate strategies and techniques to facilitate their listening and speaking experiences
- use appropriate strategies and techniques to facilitate their reading and viewing experiences
- demonstrate their understanding of a wide range of texts, depending on the situation and on their individual needs
- use appropriate strategies and techniques to facilitate their writing and other forms of representing experiences

Early French Immersion

Early French Immersion Program

Anglophone school boards may offer an Early French Immersion Program that starts in grade primary and ends in grade 12. The percentage of instruction in the French language is apportioned as follows:

Primary–Grade 2	85–100%
Grades 3–6	70–80%
Grades 7–9	70–75%
Grades 10–12	minimum of nine credits taught in French (excluding Core French)

The percentage of instruction in French varies in grades primary to 6 due to the availability of specialists (e.g., music teachers, physical education teachers, or other specialists who do not speak French). Formal English instruction is introduced in grade 3, hence the reduction in the percentage of instruction in French from grades 3 to 6.

Elementary (Primary–Grade 6)

The elementary French immersion language arts program was developed according to the principle that language is not only a means of communication but also a vehicle for thought and learning. It is designed to allow students to develop oral, written, and visual skills in an integrated manner by means of authentic and meaningful situations while allowing them to develop their own learning strategies.

Junior High (Grades 7–9)

The junior high early French immersion language arts program is designed to support the language needs of students in other subjects taken in French. The program provides the opportunity for students to continue developing their French skills in reading and viewing, oral production and listening, writing and representing, as well as valuing the French language and cultural diversity. Students are engaged in a variety of individual, small- and large-group activities in numerous authentic and meaningful situations that facilitate communication in French.

Late French Immersion

Anglophone school boards may offer a Late French Immersion Program that starts in grade 7 and ends in grade 12. This program is intended for students who have completed grade 4–6 Core French or grades 4 and 5 Core French and grade 6 Intensive French.

The percentage of instruction in the French language is apportioned as follows:

Grades 7–9	70–75%
Grades 10–12	minimum of nine credits taught in French (excluding Core French)

Time allotment for the various subjects offered within both the Early and Late French Immersion Programs will be as prescribed in the *Public School Programs* document and the *Time to Learn Strategy*.

Junior High (7–9)

The junior high late French immersion language arts program is designed to support the language needs of students in other subjects taken in French. The program provides opportunities for students to develop and to enhance their communication skills, to refine their thinking and problem-solving skills and to develop a better understanding of their own language and culture. Students are engaged in a variety of authentic and meaningful situations in which they must give and request information, express their thoughts and opinions, amuse and entertain, as well as satisfy and use their imagination. By interacting with others, students learn, in context, elements of language that facilitate communication in French.

Senior High (Grades 10–12)

Early French Immersion and Late French Immersion

The senior high French immersion language arts program for early and late French immersion students is designed to support the language needs of students in other subjects taken in French. It provides opportunities for students to improve their ability to think and to communicate effectively in French as well as to appreciate

and enjoy French language and culture. Speaking and listening are particularly emphasized as these constitute the most prevalent modes of communication in everyday life. However, an increased emphasis is placed on reading and writing through meaningful and varied activities.

Français arts lanagiers immersion 10 (academic, 1 credit)

Course Code: 007106

This immersion course emphasizes using French for a variety of purposes. Students are engaged in listening and speaking experiences that require them to communicate information and respond orally to a variety of texts, such as conversations, interviews, documentaries, articles, poems, short stories, and novels. Reading and literature include articles, poems, mythology, short stories, and novels. Students are engaged in written activities through which they present information, write letters, and express their feelings about different events and situations. The course also explores other forms of viewing and representing.

Français arts lanagiers immersion 11 (academic, 1 credit)

Course Code: 007107

In the grade 11 French immersion course, students continue to listen and respond to a variety of texts and to communicate orally information on various topics. Students are involved in such activities as improvisation and drama. Reading and literature include articles, biographies, poems, mythology, short stories, and novels. Writing activities include letters, tales, short stories, reports, and research papers. The course also explores other forms of viewing and representing.

Français arts lanagiers immersion 12 (academic, 1 credit)

Course Code: 007108

In grade 12, students continue to develop their listening and oral skills in French while engaged in a wide range of activities. Reading and literature include many forms and genres, including articles, position papers, poetry, legends, short stories, novels, and drama. Students write informative reports, research papers, and briefs. The course also explores other forms of viewing and representing.

Expérience culturelle 12

Expérience culturelle 12
(academic, 1 credit each)
Course Codes: 22044 (Core French Explore)
22045 (Core French Exchange)
22046 (Integrated French Explore)
22047 (Integrated French Exchange)
22048 (French Immersion Explore)
22049 (French Immersion Exchange)

The primary purpose of this grade 12 credit is to facilitate the completion of the requirements for obtaining the French Immersion or the Integrated French certificates. Core French students will also be able to obtain this credit.

This credit will be met by participating and meeting the requirements of one of the following two program options:

- The Nova Scotia / Québec Six Month Student Exchange Program
- The Explore Program

The guidelines for completing the Expérience culturelle 12 (EXC12) credit for senior high French courses are articulated in the draft Appendix G in the newly revised draft *French Second Language Programs Policy*.

Curriculum Documents

Document d'encadrement du programme de français en immersion au Canada atlantique (FÉPA)
Français de base à l'élémentaire, 4e à la 6e année (1998)
Français de base au secondaire 1er cycle, 7 à la 9e année (1999)
Français de base au secondaire 2e cycle, 10e, 11e, 12e année (2003)
French Immersion English Language Arts Grade 3: Curriculum Supplement (2003)
Programme d'études du cours de français - 10e à la 12e année - immersion (2003)
Programme d'études du cours de français- 7 à la 9e année - immersion précoce (2004)
Programme d'études du cours de français -7 à la 9e année - immersion tardive (2002)
Programme d'études du cours de français immersion - maternelle à la 3e année (2006)
Programme d'études du cours de français immersion 4e à la 6e année (2008)

Gaelic Language

The Gaels of Nova Scotia are a people whose culture is grounded in the tradition of Gaelic Scotland and shaped by the experiences of life in Canada. The culture and traditions of the Gaels are evident and thrive throughout Nova Scotia and are a vital part of Nova Scotia's cultural mosaic. Central to the culture is the Gaelic language. A precious aspect of our heritage, the Gaelic language has had a long and important history in Nova Scotia. The Gaelic language is at a critical stage in its evolution, and it is therefore important that the youth of Nova Scotia have the opportunity to learn to communicate in Gaelic.

Elementary (Grades 3–6)

The aim in teaching Gaelic at the elementary level is to encourage interest in and arouse curiosity about the Gaelic heritage.

Initially, students are taught common conversational phrases so they may experience a sense of satisfaction and achievement. The use of songs, games, and stories is very helpful at this stage. The songs and stories should be drawn from local tradition, if possible. This allows the students to receive approval in their own environment.

Students should have the opportunity to become familiar with historical events of particular significance to Canadians with a Scottish background. The lives of famous Canadians who share this common bond should be studied.

Daily periods of instruction in Gaelic are more effective than longer, more infrequent periods. It would be advantageous to have a particular classroom assigned to the teacher of Gaelic. The teacher may then create a better learning environment where language, social studies, and cultural projects can be integrated as part of the Gaelic program.

The level or levels at which Gaelic is to be included is a matter for local decision, with advice from staff of English Program Services, if desired.

Junior High (Grades 7–9)

Junior high continues to develop students' aural/oral skills in Gaelic and to provide the opportunity to deepen the students' understanding of Nova Scotia's Gaelic culture. At this level, students are also introduced to the skills of reading and writing in Gaelic. A minimum of 25 per cent of class time should be provided for this in the early stages. This focus should permit the students to profit from their previously acquired skills, both for their further development and as a base for reading and writing. It is, however, important that speaking and aural comprehension not be neglected. At the end of this stage, the student should be able to use a four-skill approach to prepare simple compositions for both oral and written presentations.

Senior High (Grades 10–12)

Gaelic 10
(academic, 1 credit)
Course Code: 007014

Gaelic 10 is an introductory-level course designed to develop the learner's ability to communicate effectively in Gaelic using basic language skills. The curriculum integrates general language education, technology, culture, history of Gael, music and the arts, and linguistic elements.

Senior high students who have not had previous instruction in Gaelic at the elementary and junior high school levels should follow the program at an accelerated pace. For other students, the reading and writing skills should further support the already acquired aural/oral skills.

Gaelic 11
(academic, 1 credit)
Course Code: 007015

Gaelic 11 is a continuation of the work begun in Gaelic 10 and is designed to develop the learner's ability to communicate more effectively in Gaelic, using more advanced language skills. The curriculum integrates general language skills, linguistic elements, technology, culture, a history of the Gaels, drama, music, and the arts.

Gaelic 12
(academic, 1 credit)
Course Code: 007016

Gaelic 12 is the culmination of a three-year study of the Gaelic language designed to make the learner able to communicate effectively and with moderate fluency. The curriculum integrates general language skills, linguistic elements, technology, culture, history, drama, music, and the arts

Curriculum Document

Celebrating Our Celtic Culture: A Teaching Resource (Draft, 2008)
Gaelic Curriculum for the Elementary and Junior High Schools of Nova Scotia (Draft, April 2008)
Gàidhlig 10 / Gaelic 10 (2008)
Gàidhlig 10 / Gaelic 10: A Teaching Resource (2008)
Gàidhlig 11 / Gaelic 11 (2008)
Gàidhlig 12 / Gaelic 12 (2008)

Health Education

The purpose of health education in schools is to provide students with opportunities to practice and reinforce life skills in culturally and developmentally appropriate ways, while exploring a range of protective factors in an integrative manner that promotes health and pro-social behaviour. The understanding that the concept of health includes physical, mental, emotional, social, and spiritual dimensions, is central to the effective delivery and capacity for students to achieve the general curriculum outcomes for health education. Health education contributes to the promotion of personal and social development, the prevention of health and social problems, and the protection of human rights.

The World Health Organization's Life Skills framework has informed the development of the health education learning outcome framework (2010). Skills-based health education has been shown to make significant contributions to the healthy development of children and youth and to have a positive impact on reducing health risk behaviours. Skills-based health education fosters informed citizens who are able to seek services and advocate for policies and environments that affect their personal health, the health of their relationships, and the health of their community.

Skills-based health education is an approach to creating or maintaining healthful living choices and conditions through the development of knowledge, and especially skills using a variety of learning experiences, with an emphasis on participatory methods. It reflects current research, theories, and classroom best practice in health education.

Life skills are abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life. In particular, life skills are a group of competencies and interpersonal skills that help people make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and cope with and manage their lives in a healthy and productive manner. Life skills may be directed toward personal actions or actions toward others, as well as toward actions to change the surrounding environment to make it conducive to health.

Three life skills categories comprise the health education framework. These include the following:

- Coping and Management Skills
- Decision-Making and Critical Thinking Skills
- Communication and Interpersonal Skills

Six health priority areas have been identified that will serve as the contextual framework for students' development of knowledge, skills, and attitudes to promote and protect health, and with which to practise and reinforce life skills as students move through the grade levels and work towards the general curriculum outcomes and essential graduation learnings in developmentally appropriate ways. These six health priorities include the following:

- Healthy Eating
- Injury and Disease Prevention
- Emotional and Mental Health
- Physical Activity
- Sexual Health
- Substance Use and Gambling

Alongside the learning and teaching of life skills within these six health priorities, discreet specific curriculum outcomes per grade will be framed within three strands that encompass these topic areas with each life skill category woven interchangeably among the following strands—healthy self, healthy relationships, and healthy communities.

The scope and sequence of the health education curriculum primary–9 includes the application of life skills within the context of specific risk situations and within the context of the six priority health areas in developmentally appropriate ways.

Elementary (Primary–Grade 6)

Grades Primary–3

Health education in grades primary–3 promotes active and healthy living as a way of life, not only within a classroom but also throughout the school and community.

Health education curriculum for grades primary–2 requires 50 minutes of instructional time per week. Health education curriculum for grade 3 requires 60 minutes of instructional time per week. The curriculum offers many opportunities for links to and integration with learning outcomes in other subject areas.

New curriculum outcomes for health education grades primary–3 have been introduced. The curriculum guide is under development.

The new curriculum for grades primary–3 will be organized under three strands:
- Healthy Self
- Healthy Relationships
- Healthy Community

The three strands are interdependent and interrelated, and together they help to form a health education curriculum shaped by the vision of learners engaging in purposeful learning experiences and developing knowledge, skills, and attitudes related to the health benefits of active, healthy living.

Key Concepts

Through a focus on life skills, embedded within the context of the six health priority areas referenced in the introduction, key concepts in each grade level are identified in the following priority areas:
- Healthy Eating
- Injury and Disease Prevention
- Mental and Emotional Health
- Physical Activity
- Sexual Health
- Substance Use and Gambling

Topics that are fundamental in grades primary–3 that support these health priority areas, often interchangeably, include the following:
- Decision-Making
- Exploring Healthy Foods

- Identifying Safe and Trusted Adults
- Media Literacy
- Mental Health Literacy
- Naming Parts of the Body (including gender anatomy)
- Oral Health
- Personal Safety (including Internet safety)
- Physical Activity
- Positive Self-Identity
- Recognizing Safe Practices at Home, School, and the Community (including proper hygiene)
- Understanding Families
- Understanding Friendship
- Understanding the Brain

Grades 4–6

New curriculum outcomes for health education grades 4–6 have been introduced. Health education curriculum in grades 4–6 requires 60 minutes of instructional time per week. The curriculum offers many opportunities for links to learning in other subject areas.

The curriculum for grades 4–6 is organized under three strands:
- Healthy Self
- Healthy Relationships
- Healthy Community

The three strands are interdependent and interrelated, and together they help to form a health education curriculum shaped by the vision of learners engaging in purposeful learning experiences and developing knowledge, skills, and attitudes related to the health benefits of active healthy living.

Key Concepts

Through a focus on life skills, embedded within the context of the six health priority areas referenced in the introduction, key concepts in each grade level are identified in the following priority areas:
- Healthy Eating
- Injury and Disease Prevention
- Mental and Emotional Health
- Physical Activity
- Sexual Health
- Substance Use and Gambling

Topics in grades 4–6 that build on those introduced in grades primary–3 that continue to support the six health priority areas, often interchangeably, include the following:
- Active Transportation
- Basic Food Nutrients
- Changes Associated with the Onset of Puberty
- Decision-Making
- Disease Prevention
- Exploration of Gender Roles and Gender Identity
- Gambling

- Global Citizenship
- Healthy Eating Practices
- Healthy Relationships
- How Values Contribute to the Decision-Making Process
- Media Literacy
- Mental Health Literacy
- Personal Safety (including Internet / social networking safety)
- Physical Activity
- Positive Self-Identity
- Reproductive Health
- Sexual Orientation and Harmful Effects of Homophobia
- Stress Management
- Use of Caffeine

Junior High (Grades 7–9)

Healthy Living is part of the core program in grades 7–9 inclusive, is compulsory for all students, and requires 20 minutes per day or its equivalent 10 per cent of instructional time per week. It is strongly recommended that school administrators provide this teaching assignment to as few teachers as possible as the content of health education within the Healthy Living 7–9 curriculum requires a knowledgeable and confident teacher who is, and can invest time into creating rich learning experiences, engaging in professional development, and becoming familiar and comfortable with the primary teaching supplements that support this course.

An integral part of the total educational process in the junior high grades, Healthy Living offers all students opportunities to further develop life skills through the acquisition of knowledge and practice within relevant contexts of the lives of youth, enhancing their ability to make informed, healthy decisions as they meet the challenges of everyday life and of increasing independence that often puts them in various risk scenarios.

The Healthy Living curriculum integrates elements of the life and career planning components of the Comprehensive Guidance and Counselling Program. An important feature of the course is that it introduces the Nova Scotia Student Career Portfolio that students will continue to develop throughout their secondary years as the Career Portfolio is implemented in successive grades.

New curriculum outcomes for Healthy Living 7–9 have been introduced. The new curriculum for Healthy Living 7–9 will be organized under three strands:

- Healthy Self
- Healthy Relationships
- Healthy Community

The three strands are interdependent and interrelated, and together they help to form a health education curriculum shaped by the vision of learners engaging in purposeful learning experiences and developing knowledge, skills, and attitudes related to the health benefits of active healthy living. When fully implemented, the new curriculum will supersede Personal Development and Relationships, Grades 7, 8, and 9 (1992).

Key Concepts

Through a focus on life skills, embedded within the context of the six health priority areas referenced in the introduction, key concepts in each grade level are identified in the following priority areas:

- Healthy Eating
- Injury and Disease Prevention
- Mental and Emotional Health
- Physical Activity
- Sexual Health
- Substance Use and Gambling

Topics in Healthy Living 7–9, which build on those introduced in grades primary–6, and that continue to support the six health priority areas, often interchangeably, include the following:

- Accessing Health Services
- Active Transportation
- Assertiveness Skills
- Career Planning
- Communication and Interpersonal Skills
- Decision-Making
- Effects of Media and Advertising on Health Promotion
- Exploring Supportive Environments That Promote Health
- Financial Literacy
- Global Citizenship
- Healthy Eating Practices
- Healthy Relationships
- Healthy Sexuality, including Sexual Orientation, Gender Identity, and Effects of Homophobia
- Importance of Physical Activity
- Injury Prevention
- Maintaining Sexual and Reproductive Health
- Mental Health Literacy
- Methods of Contraception and Unintended Pregnancy
- Online Safety and Safe Use of Networking Devices
- Prenatal Development
- Sexual Assault
- Stress Management
- Substance Use and Gambling with a Focus on Alcohol, Tobacco, Caffeine, and Cannabis
- Values and Personal Health Practices

It is expected that within Healthy Living 7–9, teachers will provide students with a wide variety of enjoyable and engaging learning experiences. In a classroom climate whereby all learners feel safe to share and express questions, and engage in discussion, students will explore and investigate issues through participatory methods that reinforce life skills recognizing that youth should be given the opportunity to contextualize their learning related to their own realities, and to increasingly shift health-related topics from personal and interpersonal toward the student's role and critical thinking on health issues that affect the wider community and society.

Senior High (Grades 11–12)

In high school, health learning outcomes are addressed in a number of subject areas, such as Biology 11 and Biology 12. Career Development 10, Career Development 11, family studies, and physical education courses also include a number of health-related outcomes.

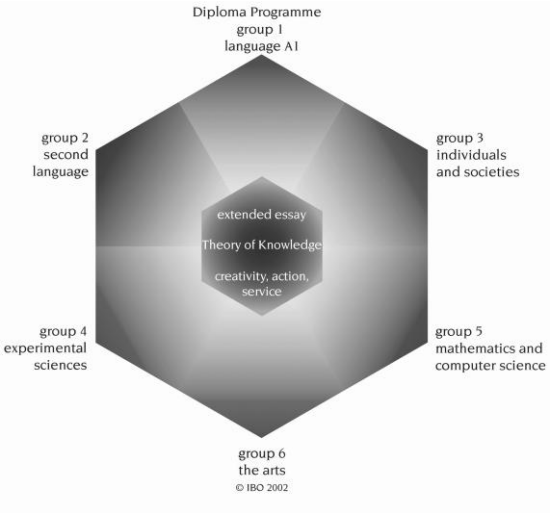
Curriculum Documents

A Question of Influence Curriculum Supplement: A Teacher's Drug Education Resource for Healthy Living Grades 7–9 (2008)
Foundation for Active, Healthy Living: Physical and Health Education Curriculum (1998)
Health Education, Grades 4–6 (2003)
Healthy Living 9 (forthcoming)
Healthy Mind, Healthy Body: Grades 4–6, Did You Know, Daddy, I Feel Sad Sometimes (2008)
Healthy Mind, Healthy Body: Grades 7–9, I'm in Control (2008)
Healthy Mind, Healthy Body: Grades Primary–3, My Brain and My Health (2011)
Mental Health, Healthy Living 9: A Curriculum Resource (Draft, 2012)
Nova Scotia Student LifeWork Portfolio: A Teaching Resource (2005)
Workplace Health and Safety, Healthy Living 9: A Curriculum Resource (Draft, 2010)

International Baccalaureate

The International Baccalaureate Diploma Program (DP) is a rigorous pre-university course of studies leading to examinations that meets the needs of highly motivated secondary school students between the ages of 16 and 19 years. Designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national education systems, the DP model is based on the pattern of no single country but incorporates the best elements of many. The DP is available in English and French.

The program model is displayed in the shape of a hexagon with six academic areas surrounding the core (as shown to the right). Subjects are studied concurrently, and students are exposed to the two great traditions of learning: the humanities and the sciences.



DP students are required to select one subject from each of the six subject groups. At least three, and not more than four, are taken at the Higher Level (HL); the others at the Standard Level (SL). HL courses represent 240 teaching hours; SL courses cover 150 hours. By arranging work in this fashion, students are able to explore some subjects in depth and some more broadly over the two-year period; this is a deliberate compromise between the early specialization preferred in some national systems and the breadth found in others.

The program culminates in a series of international examinations written in six academic subjects chosen by each student—one subject from each of the following groups, which correspond to the principal domains of knowledge:

- Language A—literature courses in the student's first language
- Language B—a second language such as French or Spanish
- Individuals and Society—subjects such as history, geography, and economics
- Experimental Sciences—subjects such as physics, chemistry, and biology
- Mathematics
- The Arts—subjects such as music, visual arts, and theatre arts

Successful DP students meet three core requirements in addition to the six subjects. The interdisciplinary Theory of Knowledge (TOK) course is designed to develop a coherent approach to learning that transcends and unifies the academic areas and encourages appreciation of other cultural perspectives.

The Extended Essay of some 4000 words offers the opportunity to investigate a topic of special interest and acquaints students with the independent research and writing skills expected at university. Participation in the creativity, action, service (CAS) requirement encourages students to be involved in creative pursuits, physical activities, and service projects in the local, national, and international contexts.

All IB course credits are grade 12 credits regardless of whether or not a student completes the course in grade 11 or grade 12. However, on transcripts to universities, the IB courses will be included as both grade 11 and grade 12 courses with no credit recorded in grade 11 unless the student writes the final examination in that grade.

IB Biology 11 and IB Biology SL 12
(advanced, 1½ credits)

Course Codes: 011295 (11; 0 credits)
011306 (12; 1½ credits)

The IB Biology SL covers themes that are used to tie together basic concepts and present biology as an integrated discipline, rather than an array of separate parts. The course places great emphasis on the required 40 hours of experimental work in the laboratory, and requires that students have a strong science background in previous grades. A unique and exciting feature of all the IB sciences is the Group 4 Project. This requires students to work together in teams in the planning and implementing of experiments on topics chosen by the students. The Group 4 Project is marked internally by the teacher. Essentially, the Group 4 Project tries to recreate a real problem-solving situation in a manner relating to the real world with different members of the team working together to resolve a problem or discovering something novel. The aim is to give students a true understanding of the scientific method.

Topics covered in the theory portion of the course includes the following mandatory topics: Cells, The Chemistry of Life, Genetics, Ecology and Evolution, and Human Health and Physiology. Teachers must also include two topics chosen from the following: Diet and Human Nutrition, Physiology of Exercise, Cells and Energy, Evolution, Neurobiology and Behaviour, Applied Plant and Animal Science, and Ecology and Conservation.

The final grade in Biology has a 24 percent component on experimental work in the laboratory, and 76 percent on a final examination made up of one paper of multiple choice questions, a paper of both short-answer questions and longer essay questions, and a third paper similar to the second focused on optional material.

IB Biology HL 12
(advanced, 2½ credits)

Course Code: 011296

The IB Biology HL covers the same material as the SL, but requires 60 hours of laboratory work and covers additional theory work in the following topics: Nucleic acids and proteins, Cell Respiration and Photosynthesis, Genetics, Human Reproduction, Defense against Infectious Diseases, Nerves, Muscles and Movement, Excretion, and Plant Science. In addition, HL teachers must select two of the following topics: Evolution, Neurobiology and Behaviour, Applied Plant and Animal Science, Ecology and Conservation, and further Human Physiology.

IB Computer Science 11 and IB Computer Science SL 12
(advanced, 1½ credits)

Course Codes: 100010 (11; 0 credits)
100014 (12; 1½ credits)

Diploma program computer science students will become aware of how computer scientists work and communicate with each other and with other stakeholders in the successful development and implementation of information technology solutions. While the methology used to solve problems in computer science may take a wide variety of forms, the Group 4 computer science course emphasizes the need for both a theoretical and practical approach.

Computer science requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate.

The diploma program computer science course is engaging, accessible, inspiring, and rigorous. It has the following characteristics:

- Draws on a wide spectrum of knowledge.
- Enables and empowers innovation, exploration, and the acquisition of further knowledge.
- Interacts with and influences cultures, society, and how individuals and societies behave.
- Raises ethical issues.
- Is underpinned by computational thinking.

Computational thinking involves the ability to

- think procedurally, logically, concurrently, abstractedly, recursively, and think ahead
- use an experimental and inquiry-based approach to problem solving
- develop algorithms and express them clearly
- appreciate how theoretical and practical limitations affect the extent to which problems can be solved computationally

During the course, the student will develop computational solutions. This will involve the ability to

- identify a problem or unanswered question
- design, prototype, and test a proposed solution
- liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments

Computer science has links with subjects outside of Group 4, notably information technology in a global society (ITGS), but it should be noted that there are clear differences between the subjects.

IB Computer Science HL 12
(advanced, 2½ credits)

Course Codes: 100013 (12; 2 ½ credits)

This IB Computer Science HL course covers the same material as the SL Computer Science, but requires that students study the following additional topics, including some practical work:

- Abstract Data Structures
- Resource Management
- Control

HL students will also be required to complete a case study introduced by IB annually.

IB Chemistry 11 and IB Chemistry SL 12
(advanced, 1½ credits)

Course Codes: 011297 (11; 0 credits)
011307 (12; 1½ credits)

In the IB Chemistry SL course, themes are used that tie together basic concepts and present Chemistry as an interrelated discipline rather than an array of separate parts. The course places great emphasis on experimental work with 40 hours required for SL students, and requires that students have a good science background in previous grades.

A unique and exciting feature of the IB sciences is the Group 4 Project that aims to demonstrate the interconnectedness of the sciences and of science with the rest of the world. The Group 4 Project requires teamwork and the planning and implementing of experiments on topics for investigation chosen by the students. The Group 4 Project is marked internally by the chemistry teacher. Essentially the Group 4 Project idea is to try to recreate a real problem-solving situation in a manner in which it would take place in industry or the "real" world. Different numbers of the same team working together to solve a problem or discovering something novel. The aim is to give students a true understanding of the scientific method.

IB Chemistry HL 12
(advanced, 2½ credits)
Course Code: 011298

The IB Chemistry HL covers the same material as the SL, but requires 60 hours of experimental work in the laboratory and covers theory work in the following additional topics: Atomic Energy, Periodicity, Bonding, Energetics, Kinetics, Equilibrium, Acids and Bases, Oxidation and Reduction, and Organic Chemistry. HL teachers must select two of the following options: Chemical Industries, Fuels and Energy, Modern Analytical Chemistry, and further Organic Chemistry.

IB Economics 11 and IB Economics SL 12
(advanced, 1½ credits)
Course Codes: 012375 (11; 0 credits)
012386 (12; 1½ credits)

IB Economics is dynamic social science, forming part of the study of individuals and societies. The study of economics is essentially about the scarcity and the problem of resource allocation.

Although economics involves the formulation of theory, it is not a purely theoretical subject. Economic theories can be applied to real-world examples. Neither is economics a discrete subject, as it incorporates elements of history, geography, psychology, sociology, political studies, and many other related fields of study.

Economics does not exist in a vacuum, but rather must consider how economic theory is to be applied in an international context. The scientific approach characterizes the standard methodology of economics. This methodology can be summarized as a progression from problem identification, through hypothesis formulation and testing, arriving finally at a conclusion.

The IB Economics course is comprised of five modules: Introduction to Economics, Microeconomics, Macroeconomics, International Issues, and Development of Economics. The student's final grade is based on an internal assessment worth 25 percent, and an externally marked examination worth 75 percent. The internal assessment is comprised of two 650–750 word commentaries, while the final three-hour examination is comprised of one essay out of a choice of four, and three data response questions out of a choice of five.

IB Economics HL 12
(advanced, 2½ credits)
Course Code: 012376

The course content in the Economics HL course is the same as that of the SL course with the addition of several extension topics. The assessment in the course is comprised of an external component worth 80 percent and an internal component worth 20 percent of the final grade. The external assessment consists of a four-hour

examination with three papers combining essay and short-answer questions. The internal assessment consists of a portfolio containing four commentaries each of 650–750 words in which economic theory is linked to a real-world situation. The internal assessment is graded by the teacher and externally moderated by the IB.

IB English Literature 11 and IB English Literature SL 12 (advanced, 1½ credits)

Course Codes: 004260 (11; 0 credits)
004262 (12; 1½ credits)

Note: A student may be allowed to study his or her particular language A1 as a self-taught candidate at the SL only, with or without the support of a teacher.

IB English A1 is a literature course, and students must be able to demonstrate a fairly rigorous grasp of traditional critical techniques, as well as a high degree of personal engagement and an individual voice in their responses to texts, especially at the higher level. That said, the course typically encourages a wide range of responses in the context of both written, oral course work, the formal examination, and a mixture of creative and analytical enquiry throughout its various components. The course allows for much room in which to address the value of literature as a means of representing, shaping, or challenging students' sense of human experience, and the world in general. In this way, English A1 relates particularly well to the core IB values and to ToK. For example, students should ideally see writing as an act of interpretation of the world around them. In addition, the study of literature emphasizes the different ways in which cultures represent their ways of seeing through literature. Teachers are required to select authors or texts for most parts of the course, from particular lists that are extremely broad, allowing freedom of choice for both the teacher and student.

The teacher of the English A1 SL course must select two texts from a wide range of literature originally written in languages other than English, found in *IB Language A1 Subject Guide*. The choice should give the student the opportunity to explore aspects of diversity in culture, politics, and language that represent the way in which cultures influence and shape the experiences of life common to all humanity. It is here that much of the IB's emphasis on international awareness and the promotion of a global perspective can be realized.

The choice of the remaining required literacy texts are left to the teacher and the student.

Student's English SL grades are based on a three-hour examination consisting of a commentary to which the techniques of literary criticism are applied with 25 percent of the grade, and two essay questions worth 25 percent. A world literature assignment of 1000–1500 words written during the course and externally assessed is worth 20 percent of the grade. An internal assessment worth 30 percent of the grade consists of taped oral commentary and a presentation of a topic chosen by the student. Both are internally assessed by the teacher and moderated by the IB.

IB English Literature HL 12 (advanced, 2½ credits)

Course Code: 004261

IB English A1 is a literature course, and students must be able to demonstrate a fairly rigorous grasp of traditional critical techniques as well as a high degree of personal engagement and an individual voice in their responses to texts, especially at the higher level. That said, the course typically encourages a wide range of responses in the context of both written, oral course work, the formal examination, and a mixture of creative and analytical enquiry throughout its various components. The course allows for much room in which to address the value of literature as a means of representing, shaping, or challenging students' sense of human experience, and the world

in general. In this way English A1 relates particularly well to the core IB values and to ToK. For example, students should ideally see writing as an act of interpretation of the world around them. In addition, the study of literature emphasizes the different ways in which cultures represent their ways of seeing through literature. Teachers are required to select authors or texts for most parts of the course, from particular lists that are extremely broad, allowing freedom of choice for both the teacher and student.

The teacher of the English A1 HL course must select two texts from a wide range of literature originally written, in languages other than English, found in *IB Language A1 Subject Guide*. The choice should give the student the opportunity to explore aspects of diversity in culture, politics, and language that represent the way in which cultures influence and shape the experiences of life common to all humanity. It is here that much of the International Baccalaureate Organization's (IBO) emphasis on international awareness and the promotion of a global perspective can be realized.

The choice of the remaining required literacy texts are left to the teacher and the student, but HL students must include one additional world literature text among the 12. Student's English HL grades are based on a four-hour examination worth 50 percent of the final grade and comprised of a paper requiring a written commentary, and a paper with four essay questions. An additional externally assessed component is the two 1000–1500 word essays written during the course, and that counts for 20 percent of the final grade. The remaining 30 percent of the student's grade is based on two individual 15-minute oral components, assessed by the teacher and externally moderated on tape by the IBO.

IB Environmental Systems and Society 11 and IB Environmental Systems SL 12

(advanced, 1 ½ credit)

Course Codes: 012424 (11; 0 credits)
012425 (12; 1½ credits)

A transdisciplinary subject, offered only at the SL level, environmental systems and society is designed to combine the techniques and knowledge associated with Group 4 (the experimental sciences) with those associated with Group 3 (individuals and societies). By choosing this course, students are able to satisfy the requirements of either Group 3 or 4 of the hexagon. The teaching approach in this course needs to be conducive to students evaluating the scientific, ethical, and socio-political aspects of environmental issues in the following topics:

- Systems and Models
- The Ecosystems
- Human Population
- Conservation and Biodiversity
- Pollution Management
- The Issue of Global Warming
- Environmental Value Systems

Students grades will be based on a final examination worth 80 percent and a internal assessment worth 20 percent of the final grade.

IB Extended Essay 12
(advanced, ½ credit)
Course Code: 098233

The Extended Essay is a 4000-word research paper on a topic of interest chosen by the student from one of the approved IB subjects in the IB Diploma Program. Each student is supervised by a trained EE Advisor who teaches in his or her school. The advisor assists the student in developing a focused research question, helps the student find research sources, reads and comments on the first draft of the paper, submits an anticipated and a predicted grade on the paper, and submits a form to the IB organization that certifies that the EE is the student's own work. Students commence work on the EE in their grade 11 year and must submit the completed paper for evaluation by an external examiner designated by the IB organization by the end of February in the student's grade 12 year.

IB Film 11 and IB Film SL 12
(advanced 1 ½ credits)
Course Codes: 043015 (11; 0 credits)
043016 (12; 1½ credits)

Film is both a powerful communication medium and an art form. The diploma program film course aims to develop students' skills so that they become adept in both interpreting and making film texts.

Through the study and analysis of film texts and exercises in film-making, the diploma program film course explores film history, theory and socio-economic background. The course develops students' critical abilities, enabling them to appreciate the multiplicity of cultural and historical perspectives in film. To achieve an international understanding within the world of film, students are taught to consider film texts, theories, and ideas from the points of view of different individuals, nations, and cultures.

The IB film course emphasizes the importance of working individually and as a member of a group. Students are encouraged to develop the professional and technical skills (including organizational skills) needed to express themselves creatively in film. A challenge for students following this course is to become aware of their own perspectives and biases and to learn to respect those of others. This requires willingness to attempt to understand alternative views, to respect and appreciate cultural diversity, and to have an open and critical mind. Thus, the IB film course can become a way for the student to celebrate the international and intercultural dynamic that inspires and sustains a type of contemporary film, while appreciating specifically local origins that have given rise to cinematic production in many parts of the world.

For any student to create, to present, and to study film requires courage, passion, and curiosity—courage to create individually and as part of a team, to explore ideas through action and harness the imagination, and to experiment; passion to communicate and to act communally, and to research and formulate ideas eloquently; curiosity about self and others and the world around them, about different traditions, techniques, and knowledge about the past and the future, and about the limitless possibilities of human expression through film.

At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through practical engagement in the art and craft of film.

To complete the SL film course students must

- study an extract of approximately five minutes from a prescribed film and offer a detailed textual analysis of the extract within the context of the film as a whole
- complete the study of at least two films from more than one country
- create and produce an original film as part of a team or as an individual

IB French Ab Initio 11 and IB French Ab Initio SL 12 (advanced, 1½ credits)

Course Codes: 007207 (11; 0 credits)
007208 (12; 1½ credits)

The language ab initio courses are language learning courses for beginners designed to be followed over two years by students who have little previous experience of learning the target language. Thus the main target of the French ab initio course is on the acquisition of language required for purposes and situations used in everyday social interaction. The French course aims to develop a variety of linguistic skills and basic awareness of different French cultures in keeping with the IBO's global perspective.

The student's final grade is based on an internal assessment, consisting of two oral taped activities worth 30 percent of the grade and a three-hour examination worth 70 percent of the grade.

IB French B 11 and IB French B SL 12 (advanced, 1½ credits)

Course Codes: 007200 (11; 0 credits)
007203 (12; 1½ credits)

The main focus of the IB French B course is on language acquisition, and the development of skills up to a fairly sophisticated degree. It is designed for students with extensive previous experience in the French language. The French Language B gives students the opportunity to reach a high degree of competence in French as well as to explore the French cultures throughout the world.

There is no rigidly prescribed syllabus, no checklists of grammar, no set texts, and no compulsory topics. IBO wishes that teachers in this course take responsibility and ownership of the course. Teachers are encouraged to organize their French IB syllabus around three concepts: language, texts, and cultural awareness. IBO has the expectation that students will develop the four communication skills and gain insight into the French culture through the exploration of these three concepts.

In essence, French Language B has a communicative approach to teaching. This in turn implies that all teaching will be carried out in French. It is also essential that students in this course are exposed to a very wide variety of texts from a variety of sources, including audio and audiovisual material. French Language B teachers will use four types of text, which students need to be familiar with: informative texts, literacy texts, mass communications texts (e.g., advertisements, brochures, and journalistic texts). Much of this material will be chosen to bring insight into the French cultures throughout the world. It follows that students must be fluent readers, writers, and speakers of French. Thus there will be an emphasis in class and in outside assignments on composition, essay writing, vocabulary, reading, and conversational skills.

Student's grades are based on an internal assessment worth 30 percent of the grade, involving an oral component that is submitted for external moderation by tape recording. A final written examination is worth 70 percent of the final grade. The final examination consists of two written papers, one and one-half hours each, the first being a variety of reading and comprehension tests, and the second comprised of an essay on one of six tasks.

IB French B HL 12
(advanced, 2½ credits)
Course Code: 007201

French Language B HL is for the student who intends to study French at this level for a future career and has four or five years of previous French study. French HL students must demonstrate greater fluency and abilities to analyze moderately complex written and spoken material. French B HL student's final grades are based on an external assessment worth 70 percent comprised of a three-hour written examination.

The internal assessment worth 30 percent is comprised of one taped oral presentation on a stimulus chosen by the student and an interactive taped oral activity assessed by the teacher and submitted for external moderation.

IB Geography 11 and IB Geography SL 12
(advanced, 1½ credits)
Course Codes: 012377 (11; 0 credits)
012388 (12; 1½ credits)

IB Geography SL is a social science course concerned with the complexity and changing nature of human society, and thus offers a variety of perspectives and methods of study. The view of geography presented in this course is thematic in organization, human in focus, and comprehensive in coverage. At its core is a series of options in physical geography, each stressing issues of human management and response. A second series of options in human geography addresses the concept of region and a sense of place, forms of settlement, and human production activities in agriculture, manufacturing, and globalization. A third section provides an option demonstrating the importance of site in providing constraints and opportunities for human activity and, therefore, affecting the landscape. This option is strongly skill oriented and highlights the distinctive use of mapping and similar technology by geographers and seeks to integrate the human and physical aspects of the subject through topographical maps, other maps, and images.

The optional themes in this course allow teachers to introduce case studies in areas such as climate change, models of development in the Third World, or earthquake hazard that the teachers believe might be of special interest to students.

Resourcing the geography course is made easier because of the quality of so much material available on the Internet. It is possible to provide notes, diagrams, animation, statistics, audio/video, as well as superb images with the use of a classroom LCD projector. Thus very few published resources need to be purchased.

Students' final grades are based on an internally assessed and externally moderated component, worth 20 percent of the grade and a three-hour externally assessed examination worth 80 percent of the grade. The internal component is a formal investigation involving 30 hours of fieldwork on a topic chosen by the student and recorded in a written report of 2500 words. The external assessment is comprised of two papers, written in a three-hour examination, the first requiring the student to answer two of three questions, and the second requiring the student to answer two of twelve questions.

The geography standard level course is one of the easiest to combine with the HL course in the same class.

IB Geography HL 12
(advanced, 2½ credits)
Course Code: 012378

The HL geography course is easily combined with the SL course, requiring the same basic skills and knowledge with the addition of optional topics. The final grade is based on a written external assessment worth 75 percent of the grade comprised of a four-hour written examination with a choice of questions. The internal assessment worth 25 percent consists of fieldwork leading to one written report (2500 words) to be internally assessed by the teacher and externally moderated by IB.

IB History 11 and IB History SL 12
(advanced, 1½ credits)
Course Codes: 012379 (11; 0 credits)
012390 (12; 1½ credits)

The IB History SL covers a wide range of twentieth-century topics along with five regional options, each with 22 sub-topics. The course teaches students how to evaluate and integrate source material, and how to analyze, compare, and explain historical events, and their different interpretations. The course requires extensive regular and independent reading, and requires depth and breadth in its assessment. It is taught thematically, not chronologically. The topics include: Causes, Practices, and Effects of War; Nationalist and Independent Movements, Decolonization, and Challenges Facing New States; The Rise of Single Party States; Peace and Cooperation, International Organizations, and Multiparty States; The Cold War; and The State, and Its Relationship with Religion and with Minorities. Each topic has several subtopics, for example Topic 1 subtopics are (Arab-Israel, Chinese Civil War, First and Second World War, Korean War, Mexican Revolution, Nigerian Civil War, Russian Revolutions, Spanish Civil War, and Vietnam War). This provides a great deal of choice for both the history teacher and the student. The assessment includes an internally marked and externally moderated historical investigation of between 1500–2000 words worth 20 percent of the total mark, and a two and one-half hour externally marked exam containing structured questions on source evaluation, and two essay questions chosen from the six topic areas.

In this course, it is important to increase the students' depth of knowledge and correct use of terminology, so they need to learn how to create and maintain their own glossary of key terms for each topic and use a consistent school-wide method of referencing. The IB history teacher should also make a point of taking the students to the local university or civic library to teach them how to find resources and formulate relevant focused investigations. This is particularly important because it also helps the student write the extended essay. Students in this course will need to do a great deal of background reading to understand the narrative of nineteenth- and twentieth-century history, thus enabling them to put the topics covered in context.

IB History HL 12
(advanced, 2½ credits)
Course Code: 012380

The IB History HL covers the same topics as the SL course, but HL students must also choose an additional regional option with its additional 22 subtopics. The only other difference is in the assessment of the HL student. The HL student's historical investigation of 1500–2000 words is worth only 20 percent of the final grade, and the final externally marked examination includes an additional two and one-half hour paper in which students choose three essay questions out of a total of 25. Of all IB subjects, History HL and SL are the easiest to combine in one class.

IB History of Americas HL
(advanced, 2½ credits)
Course Code: 012426

The IB History of the Americas is similar to the course content and requirements of the IB History HL course except that the topics include a Canadian or American perspective thematically. For example, the topic "The Great Depression" can be approached from a Canadian perspective rather than a global perspective, and the required 1500–2000 word historical investigation can focus on a Canadian issue. This approach provides a great deal of choice for both the history teacher and the student.

IB Information Technology in a Global Society 11 and IB Information Technology in a Global Society SL 12
(advanced, 1½ credits)
Course Codes: 100081 (11; 0 credits)
100080 (12; 1½ credits)

Students of Group 3 subjects study individuals and societies. This means that they explore the interactions between humans and their environment in time and place. As a result, these subjects are often known collectively as the human sciences or social sciences.

The IB information technology in a global society (ITGS) course is the study and evaluation of the impacts of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT within social contexts.

Although ITGS shares methods of critical investigation and analysis with other social and ethical considerations that are common to other subjects in Group 3. Students come into contact with IT on a daily basis because it is so pervasive in the world in which we live. This increasingly widespread use of IT inevitably raises important questions with regard to the social and ethical considerations that shape our society today. ITGS offers an opportunity for a systematic study of these considerations, whose range is such that they fall outside the scope of any other single discipline.

IB Math Studies 11 and IB Math Studies SL 12
(advanced, 1½ credits)
Course Codes: 008205 (11; 0 credits)
008207 (12; 1½ credits)

This course is designed for students whose interests lie more with the humanities than the sciences, and who do not intend to pursue university programs requiring a strong background in mathematics, such as engineering or commerce. Students likely to need mathematics for the achievement of further qualifications should be advised to consider the IB Mathematic Methods course offered at both the Standard and Higher level. There are three options available in the course—calculus, statistics, graphs, and matrices, of which schools must pick one. Calculus is a common choice in view of the calculus entry requirements of many universities.

The MSSL course features a single piece of course work called The Project. It is based on an option topic of the syllabus or an open investigation, and typically takes from one to six months to complete. It is assessed internally and worth 20 percent of the final grade. The remaining 80 percent of the final grade is based on the results of a two and one-half hour exam.

The topics covered in the MSSL course include the following:

- Introduction to the Graphic Display Calculator (GDC)
- Number and Algebra
- Sets Logic and Probability
- Functions
- Geometry and Trigonometry
- Statistics
- Introductory Differential Calculus
- Financial Mathematics

Because of the nature of Math Studies, teachers may find that traditional methods of teaching are inappropriate, and less formal shared learning techniques can be more stimulating and rewarding for the student.

It is important that teachers of this course teach students an appreciation of the multiplicity of cultural and historical perspectives of mathematics.

IB Mathematics 11 and IB Mathematics SL 12 (advanced, 1½ credits)

Course Codes: 008203 (11; 0 credits)
008208 (12; 1½ credits)

This course caters to students who already possess knowledge of basic mathematical concepts, and are competent in a range of analytical and technical skills.

The majority of these students will be expecting to include mathematics as a major component of their university studies, either as a subject in it's own right or within courses such as physics, engineering, and technology as they prepare for future studies in subjects such as chemistry, economics, psychology, and commerce.

The course is well-balanced covering approximately 70 percent of the higher level mathematics course. In addition to a core component comprising calculus, analytical geometry, and probability and statistics, the course also features two options (of which schools must choose one): Statistical Methods and Further Calculus. These options are tackled at a level of difficulty found in a typical university course. The emphasis in the course is on application and use of techniques rather than on their derivation, validity, and possible generalization. The ability to use GDCs' effectively is a requisite for a high grade.

There is a course work component consisting of short investigative or modelling tasks called portfolio tasks that are best integrated with the teaching topics. A selection of the best three of these tasks go toward 20 percent of the final grade, and are marked internally. A final examination determines the other 80 percent of the final grade.

IB Mathematics HL 12 (advanced, 2½ credits)

Course Code: 008204

This course caters to students with a good background in mathematics, and who are competent in a range of analytical and technical skills. The majority of these students will be expecting to include mathematics as a major component of their university studies, either as a subject in its own right, or within courses such as physics, engineering, and technology.

The nature of the subject is such that it focuses on developing important mathematical concepts in a comprehensive, coherent, and rigorous way. This is achieved by means of a carefully balanced approach. Students are encouraged to apply their mathematical knowledge to solving problems set in a variety of meaningful contexts. Development of each topic should feature justification and proof of results. Students embarking on this course should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. They should also be encouraged to develop skills needed to continue their mathematical growth in other learning environments.

The internally assessed component is the portfolio. It offers students a framework for developing independence in their mathematical learning through engaging in mathematical investigation and mathematical modelling. Students will be provided with opportunities to take a considered approach to these activities, and to explore different ways of approaching a problem. The portfolio also allows students to work without the time constraints of a written examination and to develop skills in communicating mathematical ideas.

The Mathematics HL course includes as a core, algebra and functions, calculus, probability and statistics, complex numbers, vectors and matrices, and transformations and features, and an additional five optional topics (of which a school must choose one): Analysis, Discrete Mathematics, Further Statistics, Group Theory, and Plane Geometry.

The HL examination features use of the GDC-related questions and is worth 80 percent of the student's final grade. The internally assessed portfolio is worth 20 percent of the final grade. The portfolio is comprised of a minimum of three short tasks: an open investigation, a closed investigation, and a modelling task that addresses a real-life problem.

IB Music 11 and IB Music SL 12 (advanced, 1½ credits)

Course Codes: 009150 (11; 0 credits)
009152 (12; 1½ credits)

The IB Music SL program is a unique course combining the study of music theory, music appreciation, and music performance and composition. Students are exposed to the various musical genres and styles throughout the world to gain an appreciation for the similarities and differences in music and musicians in different cultures. The course is designed for both serious experienced musicians who want to improve their performance and/or compositional skills, as well as less experienced musicians who want to improve their performance skills through ensemble participation. The IB Music SL course consists of two broad sections, the musical perception and analysis section, and the performance/composition option.

In this course, how to teach students to analyze and reflect on the artistic products of other cultures is a particular concern. The infusion of critical reflective thought on the nature of artistic expression not only serves the IBO's global perspective, but actually improves standards of musical performance as well.

A student's final grade is based on an internal assessment externally moderated worth 50 percent of the grade, and an externally assessed component comprising the other 50 percent. The internal assessment is made up of one of three options: a sole performance, a group performance, or two contrasting compositions. The external examination is comprised of a two and one-half hour listening paper, based on five musical extracts, and a musical investigation into the relationship between two musical genres, which is a written media script of 1200–1500 words.

IB Music HL SR
(advanced, 2½ credits)
Course Code: 009157

HL Music students study the same materials and topics as SL students, but HL students must both create music and perform a solo piece. This requires HL students to bring to their musical studies a wider perspective and to pursue some work in more depth. Thus the major distinction between HL and SL requirements is that there is a significant difference in expectation.

IB Physics 11 and IB Physics SL 12
(advanced, 1½ credits)
Course Codes: 011299 (11; 0 credits)
011308 (12; 1½ credits)

In the IB Physics SL course themes are used that will tie together basic concepts and present physics as an interrelated discipline rather than an array of separate parts. The course places great emphasis on experimental work with 40 hours required in the SL course and requires that students have a strong science background in previous grade levels. A unique and exciting feature of all the IB Sciences is the Group 4 Project that requires students to work as a team in planning and implementing of experiments on topics chosen for investigation by the students. The Group 4 Project is marked internally by the teacher. Essentially, the Group 4 Project tries to recreate a real problem-solving situation in a manner in which it would take place in the real world, with different members of the team working together to resolve a problem or discovering something novel. The aim is to give students a true understanding of the scientific method.

Topics covered in the theory portion of the course include the following mandatory topics: Physics and Physical Measurement, Mechanics, Thermal Physics, Waves, Electricity and Magnetism, and Atomic and Nuclear Physics. Teachers must also choose two of the following optional topics: Mechanics Extension, Quantum Physics, Nuclear Physics, Energy Physics, the History and Development of Physics, Astrophysics, Relativity, and Optics.

The experiments in the laboratory are recorded in each students physics notebook that forms the basis of the student's external assessment of his or her experimental work.

IB Physics HL 12
(advanced, 2½ credits)
Course Code: 011300

The IB Physics HL course covers the same topics and requirements as the SL course, but requires 60 hours of experimental work in the laboratory, and covers theory work in the following additional topics: Measurement and Uncertainties, Mechanics, Thermal Physics, Wave Phenomena, Electromagnetism, Quantum Physics, and Nuclear Physics. In addition, the teacher must select two of the following topics: Biomedical Physics, The History and Development of Physics, Astrophysics, and Relativity Optics.

IB Spanish Ab Initio 11 and IB Spanish Ab Initio SL 12 (advanced, 1½ credits)

Course Codes: 007199 (11; 0 credits)
007204 (12; 1½ credits)

The language ab initio courses are language learning courses for beginners designed to be followed over two years by students who have little previous experience of learning the target language. Thus the main target of the Spanish ab initio course is on the acquisition of language required for purposes and situations used in everyday social interaction. The Spanish course aims to develop a variety of linguistic skills and a basic awareness of different Spanish cultures in keeping with the IBO's global perspective.

The core Spanish syllabus is divided into the following topics: The Individual, Education and Work Transport, Shopping, Food and Drink, Leisure, The Environment, and Emergencies.

The student's final grade is based on an internal assessment, consisting of two oral taped activities worth 30 percent of the grade, and a three-hour examination worth 70 percent of the grade.

IB Theatre Arts 11 and IB Theatre Arts SL 12 (advanced, 1½ credits)

Course Codes: 043010 (11; 0 credits)
043012 (12; 1½ credits)

Of all the arts, the theatre is the one that looks most like life. Characters court, marry, pick quarrels and fight, and fall sick and die. In short, they seem to live, albeit in a compressed way. Alfred Hitchcock said, "Theatre is life without the boring parts."

The truth of the matter is, of course, that theatre is not life anymore then landscape painting is nature. Theatre is an art. Indeed it is a composite art that incorporates several arts and several crafts: the actor's art, the playwright's art, the director's art, and the designer's art; the carpenter's craft, the scene painter's craft, the costumer designer's craft, and the electrician's craft. Off stage it incorporates an additional spectrum of skills from lighting to the box office. It is the degree of skill and cohesion with which these arts, crafts, and skills are combined that determines how effective, often how lifelike, a theatrical event will be.

The truth of the theatre lies in its artifice. To approach an understanding of that truth, students must become acquainted with the forms and varieties that artifice has taken throughout history in a diversity of cultures.

The aims of the program in Theatre Arts are to help students understand the nature of the theatre; to understand it by making it as well as studying it; to understand it not only with their mind but with their senses, their bodies, and their emotions; to understand the forms it takes in culture, other than their own; and through this understanding to better understand themselves, their society, and their world.

At the standard level there are four compulsory parts comprised of performance; World Theatre Studies; practical play analysis; and theatre production.

Student grades consist of an external assessment worth 50 percent comprised of a Research Commission based on World Theatre Studies of approximately 1750 words, and a practical play analysis that involves an oral presentation (15–20 minutes). The internal assessment, also 50 percent, includes contribution to a theatre production and a portfolio of approximately 300 words reflecting on the candidates learning and development.

IB Theatre Arts HL 12
(advanced, 2½ credits)
Course Code: 043011

HL Theatre Arts students follow the same core syllabus as do the SL students that encourages the development of certain skills, attributes, and attitudes as described in the syllabus. The difference is in the expectations of the HL student who has to perform in at least three performances, produce a longer word research investigation, include a word rationale for their practical performance proposal, and provide a 30-minute oral presentation in the theatre performance, all as prescribed in the Theatre Arts course guide.

IB Theory of Knowledge 12
(advanced, 1 credit)
Course Code: 012382

Theory of Knowledge (ToK) is a course unique to the IB Diploma. The course does not require students to learn extra material in the IB curriculum. Instead, ToK challenges students to reflect critically and creatively on the methodologies—their strengths and weaknesses of the six IB curriculum areas. More generally, it challenges students to look at themselves and ask, What do I believe in? What are the reasons for believing? and Are those reasons good ones? ToK helps students to develop a more mature understanding of the nature of knowledge, to identify and compare different types of knowledge, and ways of knowing and developing their own judgments about what to believe and why to believe it. Through ToK, students are asked to question their preconceptions. ToK is a focused forum that is used to discuss ethics, religion, cultural differences, attitudes to war, sex, drugs, and other issues that are important to students. Students are also helped to make connections between different types of knowledge and to find a balance between the two poles of nihilism and prejudice. The course is taught in seminar style, and the assessment is 33 percent internal, based on an oral in-class presentation and 67 percent based on an external evaluation of an essay of 1200 to 1600 words chosen from a list of 10 titles previously known to the student.

ToK is a course that should lead students to reflect on all their other IB courses and their CAS experience. Indeed the most successful ToK course generates an intellectual excitement that students carry and apply to their other subjects. It is, therefore, important that ToK be scheduled to run concurrently with the other IB courses.

IB Visual Arts 11 and IB Visual Arts SL 12
(advanced, 1½ credits)
Course Codes: 001086 (11; 0 credits)
001088 (12; 1½ credits)

The IB Visual Arts program offers students a distinctive approach to the study of art appreciation, art history, arts place in society, and practical studio work. Through personal research, students will demonstrate an understanding of the cultural influences of the visual arts both internationally, and in their own geographic region. Students will research a variety of artists' artistic styles and movements in the visual arts. They will demonstrate the ability to conduct research and document the influence of their research in their own studio art in the Research Workbook they are required to maintain. This workbook will be submitted for assessment along with their studio art. The Research Workbook will also describe how the student has become involved in his or her unique creative process, and the use of available materials and resources that form the basis for the many art forms. The student will also be required to create art in the studio that will demonstrate an understanding of design principles, technical competency, use of medium, integration of influences from various cultures, and that explores various subjects, topics, and motifs.

Students' final grades in the Visual Arts SL course are based on an internally assessed Research Workbook worth 30 percent and externally moderated, and studio work assessed by a visiting examiner worth 70 percent.

IB Visual Arts HL 12
(advanced, 2½ credits)
Course Code: 001087

The HL Visual Arts course requirements are similar to the SL course. The biggest difference is in the quality expected in the HL studio work that is reflected in the greater recommended time in the studio (168 hours versus 105 hours) for HL students. The higher level course is best suited to a student who is talented enough to pursue art at the post-secondary level.

Curriculum Documents

Teachers can find useful supplemental documents online through the IBO website (IBO.org). The website has over 3000 documents for teachers to help support the curriculum.

Mathematics

Nova Scotia will implement new mathematics curriculum that is closely aligned with the Western and Northern Canadian Protocol (WNCP) Common Curriculum Framework for K–12 Mathematics. Implementation will take place over three years as follows: grades primary–3 and grade 10 in September 2013; grades 4–6 and grade 11 in September 2014; and grades 7–9 and grade 12 in September 2015.

Elementary (Primary–Grade 3)

The program includes five strands and related general curriculum outcomes.

Number (N)

- Students will be expected to demonstrate number sense.

Patterns and Relations (PR)

- **Patterns**
  Students will be expected to use patterns to describe the world and solve problems.

- **Variables and Equations**
  Students will be expected to represent algebraic expressions in multiple ways.

Measurement (M)

- Students will be expected to use direct and indirect measure to solve problems.

Geometry (G)

- **3-D Objects and 2-D Shapes**
  Students will be expected to describe the characteristics of 3-D objects and 2-D shapes and analyze the relationships among them.

- **Transformations**
  Students will be expected to describe and analyze position and motion of objects and shapes.

Statistics and Probability (SP)

- **Data Analysis**
  Students will be expected to collect, display, and analyze data to solve problems.

- **Chance and Uncertainty**
  Students will be expected to use experimental or theoretical probabilities to represent and solve problems involving uncertainty.

There are critical processes that students must encounter in a mathematics program in order to achieve the goals of mathematics education and encourage lifelong learning in mathematics. Students are expected to

- communicate in order to learn and express their understanding of mathematics (Communication [C])
- develop and apply new mathematical knowledge through problem solving (Problem Solving [PS])
- connect mathematical ideas to other concepts in mathematics, to everyday experiences, and to other disciplines (Connections [CN])
- demonstrate fluency with mental mathematics and estimation (Mental Mathematics and Estimation [ME])
- develop mathematical reasoning (Reasoning [R])
- select and use technologies as tools for learning and solving problems (Technology [T])
- develop visualization skills to assist in processing information, making connections, and solving problems (Visualization [V])

The Nova Scotia curriculum incorporates these seven interrelated mathematical processes that are intended to permeate teaching and learning.

Communication [C]
Communication and language play key roles in helping learners develop mathematical understandings. Communication is important in clarifying, reinforcing, and modifying ideas, knowledge, attitudes, and beliefs about mathematics. Communication can help students make connections between and among the different representational modes—contextual, concrete, pictorial, linguistic/verbal, and symbolic—of mathematical ideas. Students should be encouraged to use a variety of forms of communication daily while learning mathematics. The program, therefore, must include many opportunities for students to question, read, reflect, represent, discuss, and write and to use physical materials, pictures, and diagrams to illustrate and to communicate mathematical ideas. This enables them to reflect, to validate, and to clarify their thinking and provides teachers with insight into students' interpretations of mathematical meanings and ideas.

Problem Solving [PS]
Problem solving is the basis for the entire mathematics program and should provide the context for developing and applying mathematical concepts and skills. A true problem requires students to use prior learning in new ways and contexts. Problem solving requires and builds depth of conceptual understanding and student engagement, perseverance, and collaboration. Students should have many problem-solving experiences that arise from school and other everyday contexts. The program should emphasize the development and application of strategies for solving a wide variety of problems.

Connections [CN]
Contextualization and making connections to the experiences of learners are powerful processes in developing mathematical understanding. Natural connections among mathematical concepts and representations, as well as the connections that exist across curricula and in the everyday world of children, are emphasized in the elementary mathematics program.When mathematical ideas are connected to one another or to real-world phenomena, students can begin to view mathematics as useful, relevant, and integrated. Learning mathematics within contexts and making connections relevant to learners can validate past experiences and increase student willingness to participate and be actively engaged.

Mental Mathematics and Estimation[ME]
Mental mathematics is a combination of cognitive strategies that enhance flexible thinking and number sense. It is calculating mentally without the use of external aids. Mental mathematics enables students to determine answers without paper and pencil. It improves computational fluency by developing efficiency, accuracy, and flexibility. Estimation is a strategy for determining approximate values or quantities, usually by referring to benchmarks or using referents, or for determining the reasonableness of calculated values. Students need to know how, when, and what strategy to use when estimating. Estimation is used to make mathematical judgments and develop useful,

efficient strategies for dealing with situations in daily life. The program provides multiple opportunities for students to use mental mathematics and estimation strategies.

Reasoning [R]
Mathematical reasoning helps students think logically and make sense of mathematics. The elementary mathematics program emphasizes reasoning at all levels. Students need many opportunities to use models, known facts, properties, patterns, and relationships to explain their thinking. Students need to develop confidence in their abilities to reason and justify their mathematical thinking. Mathematical reasoning involves informal thinking, conjecturing, and validating—these help students understand that mathematics makes sense. The program encourages students to justify, in a variety of ways, their solutions, thinking processes, and hypotheses. In fact, good reasoning is as important as finding correct answers.

Techonology[T]
Technology can be effectively used to contribute to and support the learning of a wide range of mathematical outcomes and enables students to explore and create patterns, examine relationships, test conjectures, and solve problems. The use of calculators is recommended in the program to enhance problem solving, to encourage discovery of number patterns, and to reinforce conceptual development and numerical relationships. Calculators, however, do not replace the development of number concepts and skills. Carefully chosen computer software can provide interesting problem-solving situations and applications. Technology contributes to the program at all grade levels. While technology can be used in grades primary to 3 to enrich learning, it is expected that students will achieve all outcomes without the use of technology.

Visualization [V]
Visualization provides students with opportunities to understand mathematical concepts and make connections among them. Visual images and visual reasoning are important components of number, spatial, and measurement sense and are emphasized at all levels. Images and explanations help students clarify their understanding of mathematical ideas in all strands. Visualization is fostered through the use of concrete materials, technology, and a variety of visual representations.

Elementary (Grades 4–6)

Note: Until September 2014, the program for grades 4 –6 includes four strands and related general curriculum outcomes. This program will be replaced by the new mathematics curriculum described above.

Currently the program includes four strands and related general curriculum outcomes:

Number Concepts / Number and Relationship Operations

Students will be expected to
- demonstrate number sense and apply number theory concepts
- demonstrate operation sense and apply operation principles and procedures in both numeric and algebraic situations

Patterns and Relations

Students will be expected to
- explore, recognize, represent, and apply patterns and relationships, both informally and formally

Shape and Space

Students will be expected to
- ❖ demonstrate an understanding of and apply concepts and skills associated with measurement
- ❖ demonstrate spatial sense and apply geometric concepts, properties, and relationships

Data Management and Probability

Students will be expected to
- ❖ solve problems involving the collection, display, and analysis of data
- ❖ represent and solve problems involving uncertainty

These strands should be interrelated and explored in a spiral manner that is introduced early and periodically reviewed and extended; to provide many varied opportunities for children to make connections; to discover the order, pattern, and relations that are the basis of mathematics; and to acquire the necessary mathematical understandings. Learners need to recognize relationships among various mathematics strands and topics and to link concepts and procedures.

The outcomes articulated for the content strands are based on the unifying ideas—communication, problem solving, reasoning, and connections.

Language and Communication play key roles in helping learners develop mathematical understandings. The program, therefore, must include many opportunities for students to question, reflect, discuss, and write and to use physical materials, pictures, and diagrams to illustrate and to communicate mathematical ideas.

Problem solving is the basis for the entire mathematics program and should provide the context for developing and applying mathematical concepts and skills. Students should have many problem-solving experiences that arise from school and other everyday contexts. The program should emphasize developing and applying strategies for solving a wide variety of problems.

Reasoning. The elementary mathematics program emphasizes reasoning at all levels. Students need many opportunities to use models, known facts, properties, patterns, and relationships to explain their thinking.

Connections. Natural connections among mathematical concepts and representations, as well as the connections that exist across curricula and in the everyday world of children, need to be emphasized in the elementary mathematics program.

Representations. An emphasis on modelling multiple representation is essential in elementary school and beyond. Students should be provided with ample opportunities to represent mathematical concepts in multiple ways and to translate among these representation. There are five ways to represent a mathematical idea—contextually, concretely, pictorially, symbolically, and verbally (both orally and in writing).

At all levels, a variety of teaching methods and contexts should be used, including
- ❖ extensive experience with concrete materials whenever a new concept is introduced
- ❖ opportunities for students to proceed at their own rate through the stages of
  - exploring and experimenting with material
  - forming and testing hypotheses about relationships
  - communicating findings, first by word of mouth or by diagram, then through writing or symbols
  - practising to establish a concept once it has been understood, usually following, rather than preceding discovery

An emphasis on modelling multiple representations is essential in elementary school and beyond. Students should be provided with ample opportunities to represent mathematical concepts in multiple ways and to translate among these representations. There are five ways to represent a mathematical idea—contextually, concretely, pictorially, symbolically, and verbally (both orally and in writing).

The student's attitude toward learning is of prime importance in helping the student succeed. The seeds of a positive attitude to mathematics are sown in relevant activities, discussions, and applications to new situations.

For a detailed description of concepts, skills, and procedures, see *Mathematics Primary* (2013), *Mathematics 1* (2013), *Mathematics 2* (2013), *Mathematics 3* (2013) and *Atlantic Canada Mathematics Curriculum: Grades 4–6* (1999).

Junior High (Grades 7–9)

Note: This program will be replaced by a new mathematics curriculum that is closely aligned with to the Western and Northern Canadian Protocol Common Curriculum for 7–9 in September 2015.

To meet the varying needs and abilities of pupils in the junior high school, the mathematical experiences available should be large in scope and varied in purpose. They should evolve from the students' earlier learning experiences; hence, those planning the program must have a clear understanding of the elementary school mathematics program. To maintain student interest and responsibility in the learning situation, teachers should broaden their classroom techniques to include such methods as small-group investigations, mathematics laboratory experiences, games and puzzles, visual aids, concrete models, applications to the environment, problems related to real situations, projects, and individualization of some aspects of the program.

In planning classroom activities, teachers should be aware of the spiral nature of the mathematics curriculum in which ideas are introduced early and extended by periodically returning to consider them in greater depth.

The junior high mathematics program should emphasize
- developing and understanding concepts by having students interplay among the five representations: concrete, pictorial, verbal, symbolic, and contextual
- solving problems to investigate and understand mathematical content
- developing and using problem-solving strategies
- using mental math and estimation strategies on a daily basis
- applying mathematics in real-world situations
- modelling situations using oral, written, concrete, pictorial, graphical, and algebraic methods
- discussing mathematical ideas and making conjectures and convincing arguments
- understanding and applying reasoning processes with special attention to spatial reasoning and reasoning with proportions and graphs
- using technology appropriately to develop concepts as an aid in problem solving and for some computations

Grade 7

In a context of interesting problems that are meaningful to students, teachers and students in grade 7
- review and extend the use of operations and properties with whole numbers and decimals
- use mental math strategies to develop mastery of calculation skills, which will then lead to estimating answers using appropriate estimation strategies
- compare and order fractions, describing mixed numbers and improper fractions concretely, pictorially, and symbolically

- work with integers to develop understanding of the four operations concretely and pictorially and to develop competency with symbols
- work with factors, prime and composite numbers, least common multiple, and greatest common factor
- solve problems involving real situations and informal graph theory
- examine estimation, metric measurement applications, ratio, per cent, consumer problems, statistics, data analysis, and probability
- develop algebraic thinking, including the understanding of variable, expression, and equation
- represent situations and number patterns with tables, graphs, verbal rules, and equations and explore their interrelationships
- solve one- and two-step equations
- explore polygons and their properties
- make and apply generalizations about tessellations of polygons
- construct and explore regular and semi-regular polyhedra
- make and apply generalizations about angle relationships
- make and apply generalizations about transformations and combinations of transformations
- perform geometric constructions using a variety of methods
- determine the minimum sufficient conditions necessary to guarantee that a triangle and/or quadrilateral is of a given type.
- identify, use, and convert among the SI units to measure, estimate, and solve problems that relate to length, area, volume, mass, and capacity
- apply concepts and skills related to time
- develop and use rate as a tool to solve indirect measurement problems
- apply relationships among diameter, radii, and circumference of circles
- read and interpret tables, charts, maps, and graphs including histograms
- conduct survey projects using appropriate data collection methods
- apply probability concepts
- identify all possible outcomes of two independent events using tree diagrams and area models
- apply strategies for problem solving

Grade 8

Grade 8 continues to develop skills and concepts begun in grade 7 and introduces new ones. Together, the teacher and student

- solve problems using whole numbers, integers, and decimals
- develop operations with common fractions concretely and pictorially, bringing to symbolic competence with emphasis on applications, problem solving, mental math, and estimation
- continue to develop algebraic concepts and processes to enhance the understanding of variable, expression, and equation
- represent situations and number patterns with tables, graphs, verbal rules, and equations and explore their interrelationships
- link visual characteristics of slope with its numerical value
- solve problems by finding the intersection of two graphs
- use square roots, exponents, and scientific notation
- use ratio, proportion, per cent, scale drawing
- apply metric measurement, including perimeter, area, volume, estimating, rounding, and precise measurement
- estimate the area of circles
- develop and use the formula for area of circles
- describe relationships between areas and perimeter of quadrilaterals, and the area and circumference of circles
- calculate area of composite figures
- examine and apply Pythagorean relationships

- determine the minimum sufficient conditions necessary to produce a unique triangle
- determine the minimum sufficient conditions necessary to prove triangles are congruent
- explore the properties of transformations and how to use these properties in 2-D constructions
- make and apply generalizations about the properties of regular polygons
- determine and apply the properties of dilatations and similar 2-D figures
- develop and apply the properties of prisms, pyramids, cones, and cylinders
- make and interpret isometric, orthographic, and perspective drawings
- explore randomness and the variability of repeated samples
- construct and interpret circle graphs and box plots
- determine and apply line of best fit
- conduct experiments to find probabilities of single and complementary events
- determine theoretical probabilities of single events and complementary events
- continue developing and using problem-solving strategies

Grade 9

The grade 9 course reviews, extends, or introduces concepts involving

- integers, rational and irrational numbers, exponents, decimal approximations of square roots, and applications including Pythagorean Theorem
- explain and apply exponent laws for integral exponents
- model, solve, and pose problems involving scientific notation
- represent problems using matrices and operate on matrices (+, –, scaling, multiplication)
- apply SI measurement, including perimeter, area, volume and surface area, precision, and estimation
- examine relations, solving linear equations and inequalities, graphing linear and non-linear relations, evaluating expressions, adding and subtracting polynomials, multiplying and dividing by monomials, calculating the product of two binomials, factoring
- demonstrate that communicative, associative, distributive, identity, and inverse properties apply to operation on algebraic expressions
- determine the equation of a line by obtaining the slope and y-intercept from a graph
- ratio, proportion, per cent, rate, and applications
- relate the volume of pyramids and cones to the volume of prisms and cylinders of equal bases and heights
- develop and apply ratios within similar triangles
- investigate and determine the conditions sufficient to produce a unique triangle
- identify, apply, and justify minimum conditions for congruent triangles
- relate congruence to similarity and apply properties of similar triangles
- analyze and describe transformations and their combinations using mapping notations and apply mapping notations
- investigate, determine, and apply the effect of transformations on congruence, similarity, and orientation
- determine strengths of relationships in scatter plots
- construct a line of best fit and find its equation using slope and y-intercept
- construct a curve of best fit
- display data in the most appropriate way and defend method chosen
- understand the role of data management in society
- make predictions and conduct experiments and simulations to determine probabilities involving dependent and independent events
- determine theoretical probabilities of compound events
- devise and apply strategies for problem solving

Senior High (Grades 10–12)

Note: Nova Scotia will implement a new mathematics curriculum that is closely aligned with the Western and Northern Canadian Protocol (WNCP) Common Curriculum Framework for grade 10 Mathematics in September 2013. The new curriculum will be implemented in grade 11 in September 2014, and in grade 12 in September 2015.

The senior high mathematics curriculum should
- refine and extend methods of mathematical problem solving
- include problem-solving approaches to investigate and understand mathematical content
- develop concepts through the interplay among the five representations: concrete, pictorial, verbal, symbolic, and contextual
- use mental mathematics and estimation strategies on a daily basis
- apply the process of mathematical modelling to real-world situations
- continue to develop language and symbolism to communicate mathematical ideas
- include numerous and varied experiences that reinforce and extend logical reasoning
- test conjectures and express generalizations discovered through investigations
- investigate the connections and interplay among various mathematical topics and their applications

Students and teachers should use appropriate technology as a tool in computation and problem solving and as a means of developing concepts or enhancing the teaching/learning process.

Grade 10

Beginning in September 2013, three mathematics courses will be available at the grade 10 level: Mathematics 10, an academic credit; Mathematics at Work 10, a graduation credit; and Mathematics Essentials 10, a graduation credit.

Mathematics 10 is a 220-hour, two-credit course. Mathematics at Work 10 is a 110-hour, one-credit course. Mathematics Essentials 10 is a 110-hour, one-credit course.

Mathematics 10 is an academic high school mathematics course that is a prerequisite for all other academic and advanced mathematics courses. Students who select Mathematics 10 should have a solid understanding of mathematics from their junior high years. This means that students would have demonstrated satisfactory achievement of learning outcomes in grade 9 mathematics. Mathematics 10 is designed for those who plan to enter into fields requiring further post-secondary study of mathematics. Examples include, but are not limited to, the sciences, engineering, and business administration at university, college, or private institution.

Mathematics at Work 10 is an introductory high school mathematics course that demonstrates the application and importance of key mathematics skills. This course is designed to provide students with the mathematical understandings and critical-thinking skills identified for entry into the work force or for entry into programs of post-secondary study that do not require academic mathematics.

Mathematics Essentials 10 is designed for students who do not intend to pursue post-secondary study or who plan to enter programs that do not have any prerequisite. Typically, students who enroll in Mathematics Essentials 10 will have a history of difficulty in achieving the outcomes of the junior high mathematics program. The content of the course will focus on the development of the skills and understandings required in the workplace as well as those required for everyday life at home and in the community. Students who enroll in this course will become better equipped to deal with mathematics in the real world and will become more confident in their mathematical abilities.

Individualized Program Plans

For students in grade 10 who require individualized outcomes and who have had Individualized Program Plans (IPPs) developed specifically to meet their strengths and needs, there are two specific course codes. The course code for the 220-hour, two-credit Mathematics 10 IPP is 008019. The course code for the 110-hour, one-credit Mathematics Grade 10 IPP is 008021.

The use of an IPP course code for mathematics indicates that a student has an Individualized Program Plan in which outcomes have been deleted or the general curriculum outcomes are being taught at a significantly different specific curriculum outcome level. It could also indicate that a student is working on additional or extended outcomes. See *Special Education Policy* and *Supporting Student Success: Resource Programming and Services* for information on the individualized program planning process. An outline of the student's individualized program plan must be attached to the transcript so that the nature of the individualized program plan is clear.

To ensure mathematical success for all students, decisions about course selection should reflect a student's past experiences in mathematics, ability, interest, work habits, and future plans.

Students entering grade 10 in 2013–2014 have the following options from which to choose their first mathematics credit.

Mathematics 10
(academic, 2 credits)
Course Code: 008017

Prerequisite: Satisfactory achievement of learning outcomes in grade 9 mathematics.

Students in Mathematics 10 will explore the following topics:

Measurement
- Linear measurement
- SI and imperial units
- Surface area and volume of 3-D objects
- Trigonometry

Algebra and Number
- Factors
- Irrational numbers
- Powers and exponents
- Polynomial multiplication and factoring

Relations and Functions
- Linear relationships
- Functions
- Slope
- Distance and mid-point

Financial Mathematics
- Unit pricing and currency exchange
- Income and deductions
- Personal budgets
- Research on a topic of interest

Mathematics at Work 10 (graduation, 1 credit)

Course Code: 008018

Prerequisite: There is no prerequisite for this course.

Students in Mathematics at Work 10 will explore the following topics:

Measurement
- Linear measurement
- SI and Imperial units
- Decimal and fractional measurements
- Area and surface area

Geometry
- Spatial reasoning
- Pythagorean theorem
- Similarity of polygons
- Angles properties
- Trigonometry

Number
- Unit pricing and currency exchange
- Income and deductions

Algebra
- Formula manipulation and application

Mathematics Essentials 10 (graduation, 1 credit)

Course Code: 008189

Prerequisite: There is no prerequisite for this course.

Students in Mathematics Essentials 10 will explore the following topics:

Mental Mathematics
- Doubling and relating facts
- Adding facts
- Per cent
- Multiplying and dividing by 10, 100, and 1000

Working and Earning
- Finding a job
- Salary
- Hourly rate and overtime rate
- Commission

Deductions and Expenses
- Deductions
- Living expenses
- Comparing expenses
- Purchasing power

Paying Taxes
- Provincial and federal sales taxes
- Other forms of taxation

Making Purchases
- Making change
- Getting back fewer coins
- Taxes and total cost
- Discounts and sale prices
- Sale prices, taxes, and total cost

Buying Decisions
- The best buy
- Incentives to buy
- Cross-border shopping
- Buying decisions

Probability
- Making predictions and decisions
- Probability experiments
- Simulations

Measuring and Estimating
- The metric and imperial systems
- Measuring lengths
- Estimating

Transformation and Design
- Geometric aspects of design
- Investigating design using technology
- Designing a logo
- Tiling a plane
- Designs involving tiling patterns

Buying a Car
- A driver's license
- Owning and operating costs
- The costs of irresponsible driving

Grades 11 and 12

Note: Implementation of new grade 11 courses is scheduled for September 2014. Implementation of new grade 12 courses is scheduled for September 2015.

Grade 11 mathematics courses are as follows:
- Mathematics Foundations 11, a graduation credit
- Mathematics 11, an academic credit
- Advanced Mathematics 11, an advanced credit
- Mathematics Essentials 11, a graduation credit

Grade 12 mathematics courses are as follows:
- Mathematics Foundations 12, a graduation credit
- Mathematics 12, an academic credit
- Advanced Mathematics 12, an advanced credit

Two additional courses are available at the grade 12 level for students who plan to continue their studies in mathematics beyond high school:
- Pre-Calculus Mathematics 12, an advanced credit
- Calculus 12, an advanced credit

One additional course has been developed for grade 12 students. Math for the Workplace 12 will meet one of the "2 others from mathematics, science, and/or technology" requirements for graduation, but not one of the two mathematics credit requirements. Math for the Workplace 12 is designed for students looking for a course that will support their transition to Nova Scotia Community College (NSCC) programs that require a High School Graduation Diploma as distinct from specific academic math credits.

As students enter grade 11, some will continue their studies working on courses at the graduation level, Mathematics Foundations 11 and Mathematics Foundations 12. Students coming from Mathematics 10 will make a choice between academic and advanced courses. Students enrolled in advanced will be expected to achieve not only the specific curriculum outcomes at the academic level, but additional outcomes as well. Students choosing advanced courses must have demonstrated mathematical ability, a work ethic, an interest in going further and deeper into mathematical concepts, and the ability to work independently.

Students working in advanced courses will typically have been very successful in prior mathematics courses and will remain successful because of their level of understanding of previous experiences, their willingness and ability to work in the abstract, and their work ethic. Extensions in their study should include
- more challenging open-ended problem solving where solutions can be taken beyond the expected to a higher level of awareness and abstraction
- more problems that combine more concepts, bring together more skills and procedures into one context
- greater facility with, and more need for, algebraic manipulation
- more opportunity to make conjectures, followed by proof
- more experience dealing with logic and deductive reasoning
- more opportunity for reading, and independent research, for the purpose of obtaining more depth and breadth and instilling a more positive attitude toward and valuing of mathematics

For students who require individualized outcomes and who have had Individualized Program Plans (IPPs) developed specifically to meet their strengths and needs, there are specific course codes that apply as follows:
- Mathematics 11 IPP (008109)
- Mathematics 12 IPP (008110)
- Advanced Mathematics 11 IPP (008193)
- Advanced Mathematics 12 IPP (008108)

- Pre-Calculus Mathematics 12 IPP (008194)

The use of the course codes for Mathematics 11 IPP or for Mathematics 12 IPP indicated that a student has an Individualized Program Plan in which outcomes have been deleted or the general curriculum outcomes are being taught at a significantly different specific curriculum outcome level. See *Special Education Policy* and *Supporting Student Success: Resource Programming and Services* for information on the individualized program planning process.

The use of course codes for Advanced Mathematics 11 IPP, Advanced Mathematics 12 IPP, or Pre-Calculus Mathematics 12 IPP indicates that a student has an Individualized Program Plan in which the individualized outcomes developed extend the course as a result of the student's exceptionally strong abilities in Mathematics.

It is anticipated that in grades 11 and 12, 30–40% of students will enroll in graduation-level courses, 40–55% of students will enroll in academic-level courses, and 15–20% of students will enroll in advanced-level courses.

Advanced Mathematics 11 (advanced, 1 credit)

Course Code: 008145

Prerequisite: Successful completion of Mathematics 10 and outstanding performance in relation to the curriculum outcomes prescribed for Mathematics 10.

Students in Advanced Mathematics 11 will explore the following topics:

The Algebra of 3-Space
- Visualize planes and three dimensions
- Finding equations of planes in 3-space
- Solving systems of equations
- Relating systems of equations
- Relating the algebra and geometry
- Exploring and deriving properties of matrices
- Using matrices to solve systems
- System applications

Independent Study
- Research, present, and learn mathematics independently

Trigonometry
- Periodic, sinusoidal functions
- Graphs of trigonometric functions and transformations
- Exploring the unit circle and special rotations and relationships
- Solving trigonometric equations
- Discovering and using identities
- Exploring radian measure relationships
- Sinusoidal regression
- Deriving and applying area formulas, law of sines and cosines

Statistics
- Descriptive statistics
- Inferential statistics

- Sampling distributions
- Binomial experiments

Circle Geometry
- Apply properties of circles
- Distance and midpoint
- Proof
- Properties and relationship theorems
- Algebra of the circle and ellipse (optional)
- Apply transformations (optional)

Probability
- Fundamental principle of counting
- Tree and area diagrams
- Conditional probabilities
- Simulations
- Distinguish between permutations and combinations
- Understand factorial notation
- Combine permutations, combinations, and probability
- Pascal's triangle and combinations

Advanced Mathematics 12
(advanced, 1 credit)
Course Code: 008015

Prerequisite: Successful completion of Mathematics 10 and demonstrated outstanding performance in relation to the curriculum outcomes prescribed for Mathematics 10.

Recommended Prerequisite: Successful completion of Advanced Mathematics 11.

Students in Advanced Mathematics 12 will explore the following topics:

Quadratics
- Quadratics as a power sequence
- Modelling and exploring patterns
- Determining the equation
- Exploring the graphs
- Developing the quadratic formula
- Solving for the roots
- Exploring the nature of the roots

Rate of Change (optional)
- Developing the concept
- Average rate of change
- Connect to quadratic
- Slope of the tangent line
- Instantaneous rate of change
- Estimate and calculate slopes at different points on the curve

Exponential Growth
- Modelling and patterns
- Recursiveness
- Properties and characteristics
- Explore graphs
- Instantaneous rate of change
- Transformations (advanced)
- Solve
- Exponential/log relationships
- Properties of logs

Circle of Geometry
- Inductive to deductive
- Distance and midpoint
- Proof
- Properties and relationship theorems
- Algebra of the circle and ellipse
- Apply transformations

Calculus 12
(advanced, 1 credit)
Course Code: 008190

Prerequisite: Successful completion of Pre-Calculus Mathematics 12.

Students in Calculus 12 will explore the following topics:

Limits and Continuity
- Rates of change and limits
- Continuity
- Rates of change and tangent lines

Derivatives
- Derivative of a function
- Differentiability
- Rules for differentiation
- Velocity and other rates of change
- Derivative of trigonometric functions
- Chain rule
- Implicit differentiation
- Derivatives of exponential and logarithmic functions

Applications of Derivatives
- Extreme values of functions
- Mean value theorem
- Connecting f' and f'' with the graph of f
- Modelling and optimization
- Linearization and newton's method
- Related rates

The Definite Integral
- Estimating with finite sums
- Definite integrals
- Definite integrals and antiderivatives
- Fundamental theorem of calculus
- Trapezoidal rule

Differential Equations and Mathematical Modelling
- Antiderivatives and slope fields (omit slope fields)
- Integration by substitution
- Integration by parts
- Exponential growth and decay
- Population growth

Application of Definite Integrals
- Integral as net change
- Areas in the plane
- Volumes
- Lengths of curves
- Applications from science and statistics

L'Hôpital's Rule, Improper Integrals, and Partial Fractions
- l'Hôpital's rule

Math for the Workplace 12 (graduation, 1 credit)

Course Code: 008192

Prerequisite: Successful completion of one mathematics course at the grade 10 level and one mathematics course at the grades 11 or 12 level.

Students in Math for the Workplace 12 will explore the following topics:
- Module 1: Measurement
- Module 2: Math in the Workplace Investigation
- Module 3: Ratio, Rate, and Proportion
- Module 4: Major Project

Module 1: Measurement
- Accuracy and precision
- Fractions as they apply to measuring
- Length, area, and volume
- Significant figures
- Dimensional analysis
- Distances
- Pythagorean theorem

Module 2: Math in the Workplace
- Investigating the math used in a variety of workplaces

Module 3: Ratio, Rate, and Proportions
- Blue prints
- 3-dimensional drawings
- Per cents, ratios, and decimals
- Rates trigonometry

Module 4: Major Project
- An independent project displaying the math involved in doing a workplace related activity

Mathematics 11
(academic, 1 credit)
Course Code: 008067

Prerequisite: Successful completion of Mathematics 10.

In exceptional cases, those who have demonstrated very good to outstanding performance in relation to the curriculum outcomes prescribed for Mathematics Foundations 10, have demonstrated initiative and willingness to complete required independent study to address some Mathematics 10 outcomes, and are recommended by the school principal and/or teacher, may enrol in Mathematics 11.

Students in Mathematics 11 will explore the following topics:

The Algebra of 3-Space
- Visualize planes in three dimensions
- Solving systems of equations
- Relating the algebra and geometry
- Exploring properties of matrices
- Using matrices to solve systems
- System applications

Independent Study
- Research, present, and learn mathematics independently

Trigonometry
- Periodic, sinusoidal functions
- Graphs of trigonometric functions, and transformations
- Exploring the unit circle and special rotations and relationships
- Solving trigonometric equations
- Discovering and using identities
- Area formulas, law of sines and cosines

Statistics
- Descriptive statistics
- Inferential statistics
- Sampling distributions

Mathematics 12
(academic, 1 credit)
Course Code: 008073

Prerequisite: Successful completion of Mathematics 10.

Recommended Prerequisite: Successful completion of Mathematics 11.

Students in Mathematics 12 will explore the following topics:

Quadratics
- Quadratics as a power sequence
- Modelling and exploring patterns
- Determining the equation
- Exploring the graphs
- Developing the quadratic formula
- Solving for, and exploring, the roots

Rate of Change (optional)
- Developing the concept
- Average rate of change
- Connect to quadratic
- Slope of the tangent line
- Instantaneous rate of change
- Estimate and calculate slopes at different points on the curve

Exponential Growth
- Modelling and patterns
- Recursiveness
- Properties and characteristics
- Explore graphs
- Instantaneous rate of change
- Transformations (advanced)
- Solve
- Exponentials/log relationships
- Properties of logs

Probability
- Fundamental principle of counting
- Tree and area diagrams
- Conditional probabilities
- Simulations
- Distinguish between permutations and combinations
- Understand factorial notation
- Combine permutations, combinations, and probability
- Pascal's triangle and combinations
- Binomial expansion and distributions

Mathematics Essentials 11 (graduation, 1 credit)

Course Code: 008191

Prerequisite: Successful completion of Mathematics Essentials 10.

This course will be presented over 110 hours. The typical pathway for students who successfully complete Mathematics Essentials 10 is Mathematics Essentials 11. These two courses will provide successful students with two mathematics credits as required for graduation.

Students in Mathematics Essentials 11 will explore the following topics:

Mental Math
- Multiplication and division facts
- Adding and subtracting common fractions associated with measurement
- Percent

Data Graphs
- Interpreting graphs
- Constructing graphs
- Constructing and interpreting graphs

Collecting and Organizing Data
- Sampling techniques
- Statistics in the media
- Organizing and interpreting data

Renting an Apartment
- Availability of apartments
- Renting an apartment
- Rights and responsibilities of landlords and tenants
- Monthly apartment costs

Buying a Home
- Looking for a home
- Buying a home
- The costs of maintaining a home

Household Budgets
- Affordable housing
- Components of a household budget
- Monthly budget
- Changing one item in a budget

Investing Money
- Types of investments
- Registered retirement savings plans

Measurement and 2-D Design
- The Pythagorean theorem
- Calculating perimeter and area

- Estimating perimeter and area
- Enlargements
- Scale drawings

Measurement and 3-D Design
- Rectangular prisms
- Cylinders
- 3-d drawings
- Scale models

Borrowing Money
- Credit cards
- Delaying payments on credit card purchases
- Short-term borrowing
- Repaying loans

Taking a Trip
- Planning a car trip
- Other modes of travel
- Reading schedules
- Travelling around

Mathematics in the Content Areas
- Science
- Social studies

Mathematics Foundations 11 (graduation, 1 credit)

Course Code: 008011

Prerequisite: Successful completion of Mathematics Foundations 10 or Mathematics 10

Students in Mathematics Foundations 11 will explore the following topics:

Making Choices—Linear Programming
- Solving systems of linear equations using graphs and algebraic methods
- Finding constraints with equations and graphs
- Using linear programming to find the optimal solution to a problem

Independent Study
- Research, present, and learn mathematics independently

Making Decisions in Consumer Situations
- Income, deductions, and taxes
- Budgets and financial planning
- Costs of credit and transportation
- Simple and compound interest
- Developing and applying decision-making charts

Statistics
- Sampling, bias, variability
- Exploring distributions
- Displaying and interpreting data
- Using normal curve, mean, and standard deviation

Trigonometry
- Applying Laws of Sines and Cosines
- Exploring areas of triangles

Mathematics Foundations 12 (graduation, 1 credit)

Course Code: 008013

Prerequisite: Successful completion of Mathematics Foundations 10 or Mathematics 10.

Recommended Prerequisite: Successful completion of Mathematics Foundations 11 or Mathematics 11.

Students in Mathematics Foundations 12 will explore the following topics:

Sequences (Patterning)
- Explore and develop understanding for three kinds of sequences—arithmetic, power, and geometric

Quadratics
- Explore the pattern and properties
- Explore the graphs
- Solving the quadratic in applications

Exponential Growth
- Explore the pattern and properties
- Explore the graphs
- Applying exponential relationships (compound interest)
- Some properties of exponents

Circle Geometry
- Synthetic approach
- Properties and relationship theorems
- Distance and midpoint
- Informal proof
- Inductive and deductive reasoning

Probability
- Fundamental principle of counting
- Tree and area diagrams
- Simulations
- Distinguish between permutations and combinations
- Understand factorial notation
- Combine permutations and probability

Pre-Calculus Mathematics 12
(advanced, 1 credit)

Course Code: 008156

Prerequisite: Successful completion of Advanced Mathematics 11 and Advanced Mathematics 12 OR Successful completion of Mathematics 11 and Mathematics 12 and demonstrated very good to outstanding performance in relation to the curriculum outcomes prescribed for Mathematics 11 and Mathematics 12.

Students in Pre-Calculus Mathematics 12 will explore the following topics:

Sequences and Series

- Recursive relations
- Series and sequence notation
- Developing and applying algorithms and formulas for series and sequences
- Concept of a limit
- Convergence and divergence applications of limits to series, area under the curve, and rate of change
- Proof by mathematical induction

Developing and Applying the Function Toolkit

- Combinations and compositions of functions
- Polynomial equations and inequalities—patterns and graphs
- Slopes and rate of change
- Rate of change in terms of limits
- The derivative
- Graphs of slope functions
- Roots of polynomial equations
- Solving polynomial inequalities
- Max/min, critical values for sketching
- Developing the power rule
- Modelling with polynomial functions
- Modelling and examining rational functions
- Solving rational equations and operating on rational expressions
- Exploring irrational, and absolute value functions
- Continuity, limits, and piecewise functions
- Modelling with exponential/logarithmic functions
- Developing “e” and “in”

Trigonometry

- Using radians with sine and cosine
- Tangent function
- Reciprocal trigonometric functions
- Combinations of trigonometric functions
- Developing and applying the general rotational matrix
- Trigonometric identities, and equations
- Inverse trigonometric relations

Complex Numbers

- Complex numbers—rectangular form
- Operations and graphs with complex numbers
- Polar coordinated
- Rectangular to polar form
- Develop and apply de Moivre's theorem with respect to powers

Course Codes and Prerequisite Summary

Course	Credit Type	Number of Credits	Course Code	Prerequisites
Grade 10				
Mathematics 10	academic	2 credits	008017	Satisfactory achievement of learning outcomes in grade 9 mathematics
Mathematics at Work 10	graduation	1 credit	008018	
Mathematics Essentials 10	graduation	1 credit	008189	
Grade 11				
Advanced Mathematics 11	advanced	1 credit	008145	Successful completion of Mathematics 10 and demonstrated outstanding performance in relation to the curriculum outcomes prescribed for Mathematics 10
Mathematics 11	academic	1 credit	008067	Successful completion of Mathematics 10
Note: In exceptional cases, those who have demonstrated very good to outstanding performance in relation to the curriculum outcomes prescribed for Mathematics Foundations 10, have demonstrated initiative and willingness to complete required independent study to address some Mathematics 10 outcomes, and are recommended by the school principal and/or teacher, may enroll in Mathematics 11.				
Mathematics Essentials 11	graduation	1 credit	008191	Successful completion of Mathematics Essentials 10
Mathematics Foundations 11	graduation	1 credit	008011	Successful completion of Mathematics Foundations 10 or Mathematics 10
Grade 12				
Advanced Mathematics 12	advanced	1 credit	008015	Successful completion of Mathematics 10 and demonstrated performance in relation to the curriculum outcomes prescribed for Mathematics 10 *Recommended Prerequisite:* Successful completion of Advanced Mathematics 11
Calculus 12	advanced	1 credit	008190	Successful completion of Pre-Calculus Mathematics 12
Math for the Workplace 12	graduation	1 math, science or technology credit	008192	Successful completion of one mathematics course at the grade 10 level and one mathematics course at the grades 11 or 12 level.
Mathematics 12	academic	1 credit	008073	Successful completion of Mathematics 10 *Recommended Prerequisite:* Successful completion of Mathematics 11
Mathematics Foundations 12	graduation	1 credit	008013	Successful completion of Mathematics Foundations 10 or Mathematics 10 *Recommended Prerequisite:* Successful completion of Mathematics Foundations 11 or Mathematics 11

Course	Credit Type	Number of Credits	Course Code	Prerequisites
Pre-Calculus Mathematics 12	advanced	1 credit	008156	Successful completion of Advanced Mathematics 11 and Advanced Mathematics 12 OR Successful completion of Mathematics 11 and Mathematics 12 and have demonstrated very good to outstanding performance in relation to the curriculum outcomes prescribed for Mathematics 11 and Mathematics 12

Curriculum Documents

Atlantic Canada Mathematics Curriculum: Grade 7 (1999; revised and reprinted 2010)
Atlantic Canada Mathematics Curriculum: Grade 8 (1999; revised and reprinted 2011)
Atlantic Canada Mathematics Curriculum: Grade 9 (2000; revised and reprinted 2012)
Atlantic Canada Mathematics Curriculum: Grades 4–6 (1999)
Atlantic Canada Mathematics Curriculum: Mathematics 11/Advanced Mathematics 11 (Implementation Draft, 2000)
Atlantic Canada Mathematics Curriculum: Mathematics 12/Advanced Mathematics 12 (2004)
Atlantic Canada Mathematics Curriculum: Mathematics Foundations 11 (Implementation Draft, 2000)
Atlantic Canada Mathematics Curriculum: Mathematics Foundations 12 (Implementation Draft, 2001)
Atlantic Canada Mathematics Curriculum: Pre-Calculus Mathematics 12 (Implementation Draft, 2002)
Calculus 12 (Implementation Draft, 2004)
Foundation for the Atlantic Canada Mathematics Curriculum (1996)
Mathematics 1 (Implementation Draft, May 2013)
Mathematics 10 (Implementation Draft, July 2013)
Mathematics 2 (Implementation Draft, May 2013)
Mathematics 3 (Implementation Draft, May 2013)
Mathematics 4: A Support Resource (Draft, 2007)
Mathematics 4: A Teaching Resource (2008)
Mathematics 5: A Teaching Resource (2006)
Mathematics 6: A Teaching Resource (2010)
Mathematics 7: A Teaching Resource (2005; revised and reprinted 2010)
Mathematics 8: A Teaching Resource (2005; revised and reprinted 2011)
Mathematics at Work 10 (Implementation Draft, August 2013)
Mathematics Primary (Implementation Draft, May 2013)
Mathematics: A Teaching Resource, Grade 9 (2005)

Mi'kmaw Language

A framework document, *Foundation for Mi'kmaw/Miigmao Language Curriculum*, is currently in place. The document is shaped by a vision of promoting the growth and development of students' communicative skills to enable them to engage in the preservation of the Mi'kmaw/Miigmao language and cultural identity to speak Mi'kmaw/Miigmao.

Junior High (Grades 7–9)

Mi'kmaw Language 7–9

Language reflects culture and defines people. The Mi'kmaw language program provides an opportunity for students to develop an appreciation and greater understanding of Mi'kmaw culture. The Mi'kmaw Language 7, 8, and 9 courses are developed for non-Mi'kmaw speakers, and are designed for the participation of both Mi'kmaq and non-Mi'kmaq students. These courses promote the development of communication skills in Mi'kmaw. The communicative approach, together with resource-based learning, ensures holistic learning.

Curriculum Documents

Foundation for Mi'kmaw/Miigmao Language Curriculum (2003)
Mi'kmaw Language 7 (Implementation Draft, 2006)
Mi'kmaw Language 8 (*forthcoming*)

Other Languages

German

Senior High (Grades 10–12)

The German program offered to senior high school students is designed to lead to proficiency in the language processes of listening, speaking, reading, and writing. It also offers students the opportunity to learn the fundamentals of German grammar and to acquire some familiarity with German literature and other cultural and historical achievements. A German video series may be used to enhance the cultural and linguistic content of the program. German films, music videos, and songs also contribute to the learning of authentic material. Because of the age, interests, and academic background of the students who select German as a course option, the program usually progresses at a fairly rapid pace. This allows teachers to offer core program materials during the first two years, followed by a selection of paperbacks on literary and cultural topics during the final year.

German 10
(academic, 1 credit)
Course Code: 007017

German 10 offers basic vocabulary and structures with some expansion to permit more interesting content. Core materials are presented in simple dialogues that gradually familiarize students with more complex material. Reading and writing are also introduced at this level.

The direct method is used from the beginning to present vocabulary and sentence structure in familiar situations. Program materials provide a range of high-frequency vocabulary and expressions in the context of dialogues. After students have practised these, they make observations about structures they have used. Students are encouraged to learn how the elements of the language relate to each other. Videos, games, and role-playing contribute to the overall enjoyment of learning a foreign language.

German 11
(academic, 1 credit)
Course Code: 007018

While the student continues to develop basic skills in this German course through the appropriate use of program materials, he or she is now encouraged to practise analyzing grammatical structure. The reading program, which encourages approximation, fosters good reading habits by helping students grasp meaning from phrases and sentences rather than individual words. The use of the language is always stressed over the ability to quote rules or to translate. Both accuracy and fluency are encouraged in the oral use of the language, with the emphasis being on accuracy in these early stages.

German 12
(academic, 1 credit)
Course Code: 007019

In this German course, core program materials continue to be available to assist in developing the four language processes; however, much of the students' development at this stage focuses on language use. A selection of printed materials designed to stimulate conversation and writing is made available to students. The teacher's judicious use of such materials plus well-chosen projects can result in stimulating learning experiences. While students continue to analyze grammatical structure and to read, write, and speak German, they should now be able to use their skills both for pleasure and information. This level is designed to prepare students for university entrance programs and provide a satisfying experience in language learning.

Latin

Grades 9–12

Latin is offered to students in grades 9 to 12. The program is designed to help students learn to read Latin. At first, the emphasis is placed on becoming familiar with the language. Later, the course focuses on Roman literature and culture. The study of grammatical structure aims to increase the students' ability to read at a more advanced level. As they become capable of understanding reading selections, they also learn to translate Latin passages into good idiomatic English. Throughout the program, both oral reading of Latin and oral translation of English into Latin is encouraged. As the students progress, they need less stress on grammatical construction and more on reading so that, as their proficiency develops, they may have the opportunity to read Latin authors.

Grade 9

Introductory Latin stresses the acquisition of vocabulary. The pronunciation of new words and phrases and their comprehension help students to enjoy the study of Latin. With respect to verbs, the first to the fourth conjugations are introduced in the present and imperfect indicative active tenses as well as in the imperative active. The agreement of adjectives in the first and second declensions is examined. Nouns of the first, second, and third declensions are studied in the six cases. If time permits, it may be possible to introduce the study of third declension neuter nouns.

Latin 10
(academic, 1 credit)
Course Code: 007021

Latin 10 is a continuation of the grade 9 Latin course. Students continue their study of vocabulary and grammatical constructions while practising reading both for free comprehension and for more accurate translation. At this level, the passive voice is introduced. Students should progress to a study of the present, imperfect, and future indicative passive tenses in fourth conjugation verbs.

Latin 11
(academic, 1 credit)
Course Code: 007022

As the student's vocabulary and knowledge of grammar increases, he or she is able to read with greater ease. Accordingly, extra reading material for both comprehension and translation is made available for use in Latin 11. Testing probably occurs at less frequent intervals and is more comprehensive. Students should be able to progress to the study of deponent and semi-deponent verbs.

Latin 12
(academic, 1 credit)
Course Code: 007023

Latin 12 places less emphasis on grammar and proportionately more on reading. Students should have occasion to participate in projects involving research on topics already discussed in their reading program. Students should also now become more skilled in sight reading and translation. Regular review of materials learned earlier will be very important. Students must have a good understanding of the ablative absolute and indirect statement constructions because of their extensive use in the grade 12 work. Subjunctive mood is also introduced and studied extensively. Progress tests in each unit of work can do much to assist in determining the pace of the program and the areas that need greater attention or emphasis.

Spanish

Senior High (Grades 10–12)

The Spanish program offered at the senior high school level is a three-year program. Although it deals with the fundamentals of Spanish grammar and syntax, the main emphasis is on learning to understand and to speak Spanish. Students spend much time practising the basic patterns of Spanish speech. Students also gain some insight into the cultural achievements of Spain and Latin America: they have opportunities to listen to and sing Spanish songs, read simple Spanish stories and poems, listen to Spanish radio programs, and watch Spanish films. Students are also encouraged to correspond with penpals in Spain and/or Latin America.

Spanish 10
(academic, 1 credit)
Course Code: 007024

In Spanish 10, students learn to understand and to communicate in Spanish with a minimum of grammar. They spend much time acquiring vocabulary and practising essential language patterns.

The greatest emphasis at this level is on comprehension and pronunciation skills so students can learn to hear speech patterns and to imitate them as accurately as possible. After correcting errors and practising pronunciation drills, students progress to the directed dialogues. These provide practice for groups of students in the most frequently used expressions of the language. Songs, classroom visits by Hispanics, slide-show presentations and computer vocabulary games help keep the program interesting and limit the emphasis on grammar.

Spanish 11
(academic, 1 credit)
Course Code: 007025

In Spanish 11, a continuation of Spanish 10, students become familiar with more complex patterns of speech and writing. More emphasis is placed on reading stories, anecdotes, newspaper articles, and magazines. Video presentations are offered when available.

The further use of basic language patterns helps students acquire the ability to manipulate structure and vocabulary. As students become familiar with the structures, they are taught to read the material and adapt it to their own situations. By the end of the year, some students should be able to participate in basic conversations with native speakers of Spanish.

Spanish 12
(academic, 1 credit)
Course Code: 007026

In Spanish 12, a continuation of Spanish 11, more challenging reading selections are introduced in this course. Audiovisual resources are used to help students become accustomed to follow-by-ear Spanish spoken at normal speed. Students also do some original composition work.

Since students should now have acquired a reasonable level of aural/oral skill as described in the two earlier levels of Spanish, more use may now be made of the written form of the language. Composition is now a frequent activity and progresses from a series of simple statements made in response to question clues to more original work. For some students, this can be quite productive; others will not be capable of performing such demanding or complex exercises. The more complex structures and vocabulary recommended in program materials for Spanish 12 will need widely varying methods of presentation. Suggestions in the teacher's key and in the guidelines may assist the teachers in these presentations.

Curriculum Document

Languages Template (Draft 2000)

Personal Development and Career Education

Senior High (Grades 10–12)

Career Development 10
(open, 1 credit)
Course Code: 149128

Career Development 10 is a full-credit course designed to build on the knowledge and skills developed in Healthy Living, Grades 7, 8, and 9. Students will further explore communication and teamwork skills, decision-making skills, and healthy participation and interaction within their communities. They will continue to develop their concept of their place in the world of work as they add to their understanding of workplaces and their readiness to enter them. They will learn how to refine their career plans as their knowledge grows and their priorities change. They will build on their knowledge of themselves as consumers and managers of their personal finances.

Modules include Personal Development, Career Awareness, Workplace Readiness, Financial Management, and LifeWork Portfolio.

Career Development 11
(open, ½ credit)
Course Code: 149170

Career Development 11 is a half-credit course designed to assist students in further refining their understanding of the world of work and to help them make realistic career and education plans based on solid knowledge of themselves, their skills, and their interests. This course further develops concepts found in Career Development 10, recognizing that many students will bring real work experiences to the course. Students will examine, for example, roles and responsibilities of employers and employees, workplace ethics, norms, and issues.

Modules include Career Awareness, Work Cultures, Financial Management, and LifeWork Portfolio.

Career Development 11 may be offered along with Workplace Health and Safety 11, also a half-credit course, to facilitate scheduling.

Community-Based Learning 10
(open, 1 credit or ½ credit)
Course Codes: 149136 (10, 1 credit)
149137 (10A, ½ credit)

Community-Based Learning 10 is a full- or half-credit course designed for grade 10 Options and Opportunities (O_2) students. Students will explore the opportunities that business and organizations in their community offer and experience through the increased understanding of their own employability skills, their personal growth opportunities, and their connection with the community. Community-Based Learning 10 expands opportunities

for students to learn in the community and workplace, providing credit for learning through a range of community-based activities that focus on leadership, mentoring, employability skills, and personal growth.

Community-Based Learning 10 may be offered as an alternative to Co-operative Education 10 for O_2 students who do not meet the readiness requirements for a co-operative education placement. Community-Based Learning 10 may require multiple supervised short-term community-based learning experiences that will help students to develop the skills needed for success in a co-operative education placement.

Duke of Edinburgh Award Program (open, 1 credit each)

Course Codes: 149117 (Bronze Award 10)
149118 (Silver Award 11)
149119 (Gold Award 12)

The Duke of Edinburgh's Award program has three levels: Bronze, Silver and Gold. Since 2004 the Department of Education and Early Childhood Education has recognized Duke of Edinburgh Awards as elective credits. All three Duke of Edinburgh Award credits are recognized in the same way as any other elective credit or approved local course as eligible credits toward the student's five elective credits required for graduation. The mark of 100% reflects completion of all Award requirements.

Health and Human Services 12 (academic, 1 credit; open, 1 credit)

Course Codes: 149121 (academic)
149122 (open)

This course may be offered as an academic or open credit in the same classroom depending on the outcomes completed by the individual student. It is a course requirement that all students participate in a volunteer placement or service learning project throughout the course (minimum 10 hours).

Units of study and topics include the following:

- Unit 1: Overview of the Helping Field—The course provides students with an introduction to the skills and knowledge involved in being a "helper." These skills are applicable to our personal relationships, community work, and possible career pathways in the health and human services sectors.
- Unit 2: Volunteer Experience —Students will explore the value of community volunteers and of volunteering. Community-Based Education* (volunteer and/or service learning) is a required component used to enhance the knowledge and skills developed in the classroom.
- Unit 3: Health and Human Services Systems—Students will become familiar with and learn how to access the services available in Nova Scotia within the health care and social services domain.
- Unit 4: Career Connections —Students will interview professionals and research possible career pathways related to the helping field. Particular attention will be focused on expected skill sets and how to develop.
- Unit 5: Personal and Professional Skills —Health and Human Services students will explore human development, ethics, helping process, interpersonal and personal development, wellness, written and verbal communications, and related computer applications. Group work, case studies, community projects, and agency interaction are some of the learning strategies used to ensure practical application of the theory studied.

* Community Based Education as outlined by the Nova Scotia Department of Education and Early Childhood Development.

Learning Strategies 10, 11, and 12

Learning Strategies are the processes students use to learn new skills and complete learning tasks. They provide structure and organization so learning can be most efficiently accomplished.

Most students are able to build on prior knowledge and experiences to develop effective learning strategies and learn new academic concepts and skills. However, some students, in the high school setting, may require more explicit teaching, practice, and technological assistance to acquire learning strategies that will help them move successfully through the high school curriculum and transition out of high school.

The Learning Strategies courses are part of a continuum of support services designed to assist students with identified learning difficulties. Students who are registered in Learning Strategies 10, 11, or 12 are identified through the program planning process.

The Learning Strategies curriculum emphasizes the principles of Universal Design for Instruction (UDI) and is designed to enhance and develop the students' skills in the following areas:

- Self-awareness
- Organization
- Transitioning
- Literacy
- Numeracy

Students interested in finding out more about the Learning Strategies courses should check with their guidance counsellor or resource teacher.

Learning Strategies 10
(open, 1 credit)

Course Code: 024066

Note: Learning Strategies 10 is an elective course.

Learning Strategies 10 is designed to assist students to enhance and develop their learning skills and strategies.

Learning Strategies 10 will assist students with the transition into the high school credit system and students will better understand themselves as a learner. Topics to be covered in this course include self-awareness, time management, organization, communication skills, and test and examination preparation.

Strategies will be explicitly taught and will then be reinforced by integrating the curriculum from the student's other subject areas.

Students will be encouraged to use appropriate technology to support their learning.

Enrollment in Learning Strategies 10 is through the program planning process.

Learning Strategies 11
(open, 1 credit)
Course Code: 024067

Note: Learning Strategies 11 is an elective course.

Learning Strategies 11 continues to build on the learning outcomes attained through Learning Strategies 10. This course is for students who have successfully completed Learning Strategies 10 and who have been identified through the program planning process.

An examination of post-secondary goals is a major component of this course, and the lessons will build on the skills identified in Learning Strategies 10 as those necessary for the successful transition to work or studies beyond high school.

As in Learning Strategies 10, assistive technology will be a key component of support for students.

Learning Strategies 12
(open, 1 credit)
Course Code: 024068

Note: Learning Strategies 12 is an elective course.

Learning Strategies 12 is designed for those students who have successfully completed Learning strategies 10 and 11 and who have been identified through the program planning process.

While Learning Strategies 12 will build on the grade 10 and 11 curriculum, it will have as its primary focus transition from high school. The student will be expected to demonstrate that they are a successful independent learner.

Life/Work Transitions 10
(open, 1 credit or ½ credit)
Course Codes: 149057 (10, 1 credit)
149055 (10A, ½ credit)
149056 (10B, ½ credit)

Life/Work Transitions 10 will help students to understand the relationship between their high school studies and a range of post-secondary destinations. The course focuses on examining career options, making choices, exploring the workplace, and developing employability skills. Learning modules for this course include the following: Fundamentals of Life/Work: Planning for a Changing World; Workplace Readiness; A Life/Work Simulation; Employability Portfolio; and Independent or Group Project.

Personal Development Credits

High school students who have met requirements for personal development credits from providers approved by the Department of Education and Early Childhood Education for the new Personal Development Credits program, introduced in 2012, can have these credits recognized on their high school transcripts. One of the student's five elective credits required for graduation can be a personal development credit, but the student can

also have additional personal development credits recorded on his or her transcript as extra credits beyond the thirteen compulsory and five elective credits required for graduation. For further information, visit the Personal Development Credit website at https://pdc.ednet.ns.ca.

Tourism 11
(academic, 1 credit or ½ credit)

Course Codes: 098205 (11, 1 credit)
098197 (11A, ½ credit)
098198 (11B, ½ credit)

Note: This course may be offered as a full-credit or a half-credit academic course.

Tourism 11 gives students an introduction to the tourism industry.

The course offers students opportunities to develop the essential knowledge and skills needed to enter the tourism industry or post-secondary tourism programs. Students develop their skills in communicating, problem solving, organizing and managing information, working with others and working independently, and using and adapting to new technology.

The course focuses on career planning and employability skills and on industry design and development (for example, develop a plan for eco-tourism in South America). Students apply and expand their learning in community or workplace settings through job shadowing, field trips, and work experience. Learning experiences have a strong applied focus with an emphasis on integrating, applying, and reinforcing learning in other courses.

In addition to the compulsory modules Fundamentals of Tourism and Career Exploration in Tourism, other modules may include Transportation, Hospitality, and Attractions; Tourism Attractions, Travel Trade, and Tourism Services; and Tourism Development and Design.

Tourism 12
(academic, 1 credit or ½ credit)

Course Code: 098226 (12, 1 credit)
98229 (12A, ½ credit)
098230 (12B, ½ credit)

Tourism 12 builds on the introduction to the tourism industry presented in Tourism 11 as it explores the components, issues, structures, and trends within the tourism industry. Students will examine modes of travel, accommodation, economic impact, and regulation of the industry. At the same time, students will have opportunities to explore career options in tourism and ways they can develop essential skills required in tourism workplaces that will serve them as well in other careers.

Tourism 12 modules include The Tourism Sector; The Tourism Professional; The Tourist or Traveller; Transportation, Travel Services, Recreation, and Entertainment; and Accommodations, Food, and Beverage. Students who complete all four modules may receive a full credit, while students who complete two modules may receive a half credit.

Workplace Health and Safety 11
(open, ½ credit)
Course Code: 149104

Workplace Health and Safety 11 is a half-credit course. This course is designed to develop a broad base of knowledge, skills, and attitudes necessary to create a culture of safety in the workplace and in the community. The course introduces students to the rights and responsibilities of employees and employers and integrates classroom work with a workplace application. Students will be expected to identify safety risks, to make informed decisions, and to initiate appropriate actions.

Workplace Health and Safety 11 comprises two modules: Fundamentals of Workplace Health and Safety and Workplace Hazards—Awareness and Control. This practical course will be of particular interest to students engaged in the many forms of community-based learning activities offered in many PSP courses.

Curriculum Documents

Career Development 10 (forthcoming)
Career Development 11 (forthcoming)
Community-Based Learning 10 (forthcoming)
Community-Based Learning: A Resource for Schools (2013)
Health and Human Services 12 (forthcoming)
Learning Strategies 10, 11, 12: A Curriculum Resource (Draft, June 2013)
Life/Work Transitions 10 (2000)
Nova Scotia Student LifeWork Portfolio: A Teaching Resource (2005)
Options and Opportunities: A Resource for Schools (2013)
Co-operative Education: A Resource for Schools (2013)
The Business of Mentoring (2013)
Tourism 11 (2000)
Tourism 12 (Draft, 2007)
Workplace Health and Safety 11 (2012)

Physical Education

The primary aim of the physical education program from grades primary through 12 in Nova Scotia is to help students participate in and develop a physically active lifestyle that will enable them to experience a more enjoyable quality of life physically, mentally, emotionally, and socially. If students are to be involved in physical activity on a lifelong basis, they must be equipped with the skills, knowledge, and attitudes that will enable them to enjoy and benefit from these activities. For students to acquire the necessary skills, knowledge, and attitudes, teachers must establish a positive and inclusive educational learning environment inside and outside the classroom, the gymnasium, and the school.

The encouragement of active, healthy living should permeate any comprehensive, well-balanced physical education program. Children need not only develop physical skills but experience a learning environment that values activity and healthy living.

Foundation for Active, Healthy Living: Physical and Health Education Curriculum provides a framework on which educators and others in the learning community can base decisions concerning learning experiences, instructional techniques, and assessment strategies, using curriculum outcomes as the reference point. This framework provides a coherent, integrated view of learning and teaching physical and health education that reflects current research, theories, and classroom practice.

Elementary (Primary–Grade 6)

In grades primary to 3, students should be helped to develop creativity, self-expression, and communication through movement and play. Students should have opportunities to develop perceptual motor skills, the prerequisites to more complex motor co-ordination, through rhythmic activities and dramatic play.

The five major areas of the physical education program at this level are basic movement, educational gymnastics, dance, skill development, and alternative environments. Personal and social development is also a major focus. All encourage the development of physical literacy, creativity, self-expression, communication, rhythmic activities, and dramatic play. Physical literacy refers to the mastering of fundamental motor skills such as crawling, walking, running, climbing, jumping, lifting, and kicking. It encompasses physical capacities that rely on perception, experience, memory, anticipation, and decision making, such as body awareness, reaction speed, balance, and strength. A physically literate individual is perceptive in assessing all aspects of their surrounding environment, anticipating movement possibilities, and reacting suitably with skill and resourcefulness.

The physical education program in grades 4–6 progresses naturally from the physical education program in the early grades as a continuation of the development of students' physical literacy while extending, refining, and applying gross and fine motor skills in the areas of active living, educational gymnastics, skill development, dance, and alternative environment activities. Play and movement experiences continue to be important as children continue to mature, and personal and social development will continue to be a focus.

This program forms a part of an integrated curriculum that should involve other aspects of the elementary school program in planned activities or experiences. Significant opportunities for moderate physical activity is required each day as outlined in the *Time to Learn Strategy, Grades Primary–6*.

Junior High (Grades 7–9)

The physical education program at the junior high level should help students understand that physical fitness and physical activity are necessary for a healthy body and mind. Students should have opportunities to develop and maintain cardiovascular endurance, flexibility, and muscular strength.

Students should understand that they can adapt and refine their motor skills as they participate in specific physical activities. The major areas of the physical education program at this level are active living, skill application in games and activities, outdoor activities, educational gymnastics, and dance. Students should develop a positive attitude towards physical activity and enjoy participating in the instructional, intramural, and interscholastic components of physical education.

Senior High (Grades 10–12)

At the senior high school level, students are required to earn one physical education credit in order to receive the Nova Scotia High School Graduation Diploma. Therefore, students will need to take one physical education course over the three years of high school to meet the requirement. All credits within the discipline of physical education emphasizes the need for students to lead active, healthy lives through increased physical activity. The program in the high school should help students understand that physical activity is necessary to maintain physiological efficiency.

During their final years of public education, students should have the opportunity to assess and evaluate their own personal fitness levels and be able to interpret any implications of the physical fitness assessment results. Having done this, they should be able, with the assistance of the physical education teacher, to construct and use a physical fitness program to maintain and develop desirable levels of physical fitness. They should also be able to develop fundamental skills in, knowledge of, and experience of a wide-range of specific activities that will enable them to enjoy physically active leisure-time pursuits outside the school.

The new curriculum will also introduce students to the broad spectrum of employment opportunities in physical education and related fields.

The current physical education program comprises the following courses.

Dance 11

Note: See Arts Education. Students may choose Dance 11 as an eligible credit that will meet the compulsory arts education graduation requirement **or** the physical education graduation requirement, but not both. If used as a physical education credit, students must take another arts education credit to fulfill the arts education graduation requirement.

Fitness Leadership 11
(academic, 1 credit)
Course Code: 101083

Fitness Leadership 11 provides students with opportunities to participate in a variety of group fitness experiences; assess their own level of personal fitness; broaden their understanding of human anatomy and exercise physiology; examine the benefits of active, healthy living; foster leadership apply the principles of conditioning to design; and foster leadership skills to deliver safe group fitness experiences to children and youth. Upon successful completion of this full-credit course, students will receive Level-C CPR certification.

Physical Education 10
(open, 1 credit)
Course Code: 101028

This course will provide students with a variety of fitness and sport experiences to enhance their understanding of personal fitness and personal growth. Physical Education 10 includes some theory components, coupled with predominantly active experiences whereby students will have the opportunity to participate in a variety of indoor and outdoor fitness, sport, and recreational experiences. The emphasis of this curriculum is to provide students with experiences that require them to take and reflect on their personal responsibility for active, healthy living now and throughout life.

The course is divided into four modules: Outdoor Pursuits, Exercise Science, Personal Fitness, and Leadership.

Physical Education 11
(open, 1 credit)
Course Code: 101030

This full-credit course was designed to focus on sport experiences through a Teaching Games for Understanding model which is a means to provide students with more enjoyment as they get to play modified games (in this course, sports-related games) in conjunction with learning the skills and tactics. Throughout this course, modified sports games will be taught within four categories (invasion/territory, target, net/wall, and striking/field). The emphasis throughout this course is on the tactical and strategic game play (the first module) whereby students make appropriate decisions in modified sports setting. This course also includes an additional two modules, interwoven within the first module, which focus on fostering life skills through sport and looking critically at the nature of sport and society, including injustices that often coincide within the context of sport.

Physical Education 12
(open, 1 credit)
Course Code: 101032

Note: Physical Education Leadership 12 is expected to be introduced in 2013, and will replace current locally developed courses with this focus and will replace Physical Education 12.

This physical education course concentrates on fitness opportunities, outdoor pursuits, and individual and dual games. Many opportunities should be offered to learn and practise leadership skills.

Physical Education Leadership 12 (academic, 1 credit)

Course Code: TBA

Note: Physical Education Leadership 12 is currently being developed and is expected to be introduced in 2013. At that time, it will replace current locally developed courses with this focus and will replace Physical Education 12. This full-credit course is an eligible credit to meet the physical education graduation requirement.

Physical Education Leadership 12 involves students in the pedagogy of youth leadership development that will enable them to understand and demonstrate the necessary skills and characteristics to aid in their development of leaders, particular to the provision of physically active experiences within the school and/or surrounding community. Students will explore various leadership styles; analyze the responsibilities and characteristics of effective leaders; demonstrate an understanding of group dynamics and its connection to effective leadership; and provide students with authentic environments for students to serve and further develop as youth leaders. Students will work through the process and complete a service learning project.

Physical Education Leadership 12 modules include Defining Leadership, Effective Leaders, and Leading through Service.

Physically Active Living 11 (open, 1 credit)

Course Code: 101081

This full-credit course is designed to engage students in a wide range of physically active experiences, with an overall theme of exploring options and opportunities for being active for life, both in school and in their community. Physically Active Living 11 encompasses both an activity component and a theory component, with an emphasis on engagement in physical activity.

The activity component of the course is designed to provide opportunities for students to participate in active experiences that engage youth in traditional and non-traditional forms of physical activity.

The theory component of the course will enhance student understanding of healthy eating, injury prevention, mental and emotional health, and addiction prevention highlighting the connection between healthy living and being physically active.

Yoga 11
(acad, 1 credit)
Course Code: 101089

Yoga 11 will introduce students to the tradition of Yoga with its various forms and styles. The intention is that students will develop a lifelong personal practice of yoga to maintain vibrant health and develop healthy relationships with self and others while enjoying it as a regular form of physical and leisure activity.

Students will be participating in various activities that will include physical practice, personal reflection, group discussion, and classroom theory.

The physical aspect of yoga will include the acquisition and development of skills including strength, flexibility, cardiovascular endurance, balance, regulation of energy through breathing, and mental focus. All of these skills are of great benefit to overall health and to other physical pursuits.

The course is divided into three modules: Proper Breathing and Asana Practice; The Origins and Philosophy of Yoga, and Integrating a Mindful Practice.

Curriculum Documents

Fitness Leadership 11 (forthcoming)
Foundation for Active, Healthy Living: Physical and Health Education Curriculum (1998)
Physical Education 10 (Implementation Draft, 2008)
Physical Education 11 (Implementation Draft, 2011)
Physical Education Leadership 12 (forthcoming)
Physical Education Safety Guidelines, Grades Primary–12 (2002)
Physically Active Living 11 (Implementation Draft, 2011)
Yoga 11 (Implementation Draft, 2010)

Science

The aim of science education, as defined in *Foundation for the Atlantic Canada Science Curriculum*, is to develop scientific literacy.

Scientific literacy is an evolving combination of the science-related attitudes, skills, and knowledge students need to develop inquiry, problem-solving, and decision-making abilities; to become lifelong learners; and to maintain a sense of wonder about the world around them. To develop scientific literacy, students require diverse learning experiences that provide opportunities to explore, analyze, evaluate, synthesize, appreciate, and understand the interrelationships among science, technology, society, and the environment that will affect their personal lives, their careers, and their future.

Elementary (Primary–Grade 6)

The elementary science program is a hands-on program that encourages children to learn by manipulating materials, observing first-hand, and talking and writing about what they are learning. This active, experiential approach promotes the importance of building and expanding on the natural curiosity of children and recognizes the valuable experiences that children bring to the classroom. This approach seeks to nurture in children a lifelong desire to experience, question, and investigate. It provides students with opportunities to engage in problem solving that may involve creating models, designing and building inventions, or reaching a decision that is defensible and personally acceptable.

In this program, students learn how to conduct investigations by defining problems, seeking answers, making plans, and evaluating their own and others' thinking. They develop positive attitudes to science and scientific concepts. They begin the process of becoming scientifically literate and technologically competent individuals.

Foundation for the Atlantic Canada Science Curriculum articulates the following key-stage outcomes:

By the end of grade 3, students will be expected to
- observe and identify living and non-living things in their environment
- classify on the basis of appearance (colour, size, texture, shape) and of similarities and differences (plants/animals, living/non-living, push/pull, roll/slide)
- demonstrate numeracy, including counting, comparing, estimating, ordering, and creating and using simple graphs and data tables
- measure length, volume, temperature, and time
- communicate through talk and writing and by drawing diagrams, simple charts, and graphs
- draw simple inferences from experimental work and field observations

By the end of grade 6, students will be expected to
- make quantitative and qualitative observations and record them in charts and graphs or in writing
- classify collected living or preserved materials using a systemic procedure
- use numbers to measure, to compare, and to make graphs and calculations related to their experiments
- measure length, area, volume, liquid volume, time, angles, and temperature
- communicate effectively in talk and writing and by preparing diagrams, drawings, graphs, charts, and data tables
- effectively read directions for doing experiments and understand suitable resource books

- ❖ experiment by following directions
- ❖ design simple experiments so that outcomes can be predicted and verified, explain the results observed, interpret data logically, recognize and control variables, and make suggestions for further experiments

It is expected that a minimum of 90 minutes per week in grades primary and 1 will be allotted to instruction and learning experiences centred on hands-on, minds-on science.

Science Primary

Exploring the World with Our Senses
Exploring Sand and Water with Our Senses
Exploring Moving Things with Our Senses
Exploring the World of Living Things with Our Senses

Science 1

Physical Science: Materials, Objects, and Our Senses
Life Science: Needs and Characteristics of Living Things
Earth and Space Science: Daily and Seasonal Changes

Science 2

Physical Science: Relative Position and Motion
Physical Science: Liquids and Solids
Earth and Space Science: Air and Water in the Environment
Life Science: Animal Growth and Changes

Science 3

Life Science: Plant Growth and Changes
Earth and Space Science: Exploring Soils
Physical Science: Invisible Forces
Physical Science: Materials and Structures

Science 4

Life Science: Habitats
Physical Science: Light
Physical Science: Sound
Earth and Space Science: Rocks, Minerals, and Erosion

Science 5

Earth and Space Science: Weather
Physical Science: Forces and Simple Machines
Life Science: Meeting Basic Needs and Maintaining a Healthy Body
Physical Science: Properties of and Changes in Materials

Science 6

Physical Science: Electricity
Physical Science: Flight
Earth and Space Science: Space
Life Science: Diversity of Life

Junior High (Grades 7–9)

The junior high science program provides students with significant hands-on, minds-on experiences relating to science, technology, society, and the environment. Students also benefit from opportunities to participate in co-curricular events that provide public recognition of their projects and enable students to gain hands-on, minds-on experience while engaging in challenging assignments. Outdoor learning environments and field trips, where appropriate, provide valuable learning experiences and expanded opportunities for students to engage actively in doing science.

At the junior high level, students become familiar with concepts in life, physical, earth, and space science.

Science 7

Earth's Crust

Knowledge of the Earth is rapidly growing as new methods and technologies are developed to study the components and dynamics of the Earth's crust. As students develop an understanding of the dynamics of geological systems and events, they are better able to explain and make connections between the theories of Earth science and their own experiences with local geology.

An inquiry-based approach to this unit will permit the students to investigate many of the properties of the Earth to which they have had some exposure. The most recent and widely accepted theory that is used to explain many crustal features and phenomena such as continental drift, is formally introduced and should be approached using crustal phenomena that is both relevant and motivating to the student. The context for this unit could be the rocks, minerals, and evidence of geological processes in the local environment of the student.

Mixtures and Solutions

In this unit, students will explore and investigate the similarities and differences between general mixtures and solutions as well as a variety of ways to separate the component parts of these materials. Students will not be expected to distinguish and differentiate suspensions, emulsions, and colloids at this level.

The focus in this unit is on inquiry, with an emphasis on making observations. Students should have opportunities to make and examine various types of solutions (solid in a liquid, liquid in a solid, liquid in a liquid, etc.) and devise activities for separating them based on their physical properties. The concept development of the particle model of matter with regard to pure substances and mixtures is one of the key components of this unit. Exploring common and easily made mixtures in the students' environment should be the focus of this unit.

Heat

Heat is a form of energy that is part of students' lives and the life of their communities. Students should have an opportunity to explore the properties of heat and the ways they are related to the measurement of temperature. The particle theory and the kinetic molecular theory help students explain their observations and understand both the relationship between heat and temperature and the concept of heat capacity on a qualitative level.

The focus of this unit is on problem solving and design technology. Students, for example, will plan and design air thermometers as well as qualitatively evaluate the heat capacities of some common materials.

Interactions within Ecosystems

Ecosystems, such as forests, croplands, rivers, lakes, estuaries, and oceans, are inhabited by different organisms that are well adapted to their environment. Each ecosystem is biologically and physically different, yet all act in the same way. This unit's focus is decision making and inquiry and is based on students' collections and analyses of data and information from field trips, investigations, and other sources. Students can explore and investigate a range of relationships with a familiar environment while determining the factors that threaten the existence of a particular local habitat of an organism.

Science 8

Water Systems on Earth

Over two-thirds of the Earth's surface is covered by oceans and freshwater features. A study of the Earth's marine and freshwater systems provides opportunity for students to learn about the relationship between the geomorphology of the Earth and the dynamics of oceans and freshwater basins. As students develop these understandings, they should be able to explain how these geological features have developed and to describe their impact on society.

Students have opportunities to investigate how the oceans and the shorelines interact; what relationships exist between ocean currents, wind and climates; and how these abiotic factors impact upon life in and around the oceans.

Optics

Applications using the principles of light have resulted in devices that have improved scientific techniques and contributed to the quality of life. Students have opportunities to experience and observe the properties of light using hands-on activities. Opportunities and activities designed to investigate and explore the properties of light provide the basis for more in-depth experimentation with materials in order to investigate reflection and refraction of light.

Fluids

Fluids, including air and water, are essential in most industrial processes. Students explore the properties of fluids, including viscosity and density, and explain them using the particle theory. They also have an opportunity to understand the buoyant forces acting on floating, submerged, and sunken objects. The focus of this unit is on the inquiry process. Students design and carry out activities based on fluids.

Cells, Tissues, Organs, and Systems

Students will continue to study the different body systems but not in minute detail. From activities, students should start to appreciate a correlation between healthful living and healthy systems. This is the first time that students deal with the systems as an integrated whole.

The focus of this unit of study is on decision making. Using the context of healthy/non-healthy lifestyle choices and the ways these choices impact on cells, tissues, organs, and systems, students develop basic understandings and appreciation of their interconnections and of ways to use these understandings in making wise choices with regard to their health.

Science 9

Atoms and Elements

Building on past explorations using various substances and the particle model of matter, students should become familiar with the basic constituents of atoms and molecules, with chemical symbols themselves, and with common elements and compounds.

This unit is primarily focused on inquiry. Students should engage in activities that illustrate how knowledge and theories related to atoms and elements have been developed. This unit provides an excellent opportunity to distinguish between laws and theories in science.

Characteristics of Electricity

Technologies based on the principles of electricity are an important part of the students' world. An understanding of the essentials of electrostatics and electric circuits will enable students to connect their learning to everyday applications. Investigations help students to learn the laws of electrostatic charges and to study some features and properties of electrostatics and electrical circuits.

The focus of this unit is inquiry and the design process with reference to technology and systems with which the students are familiar.

Space Exploration

The study of space exploration provides opportunities for students to develop an understanding of the origin, evolution, and components of the solar system and the universe. As students become more aware of the solar system and the universe and understand them better, they develop a greater appreciation of how they function.

The focus of this unit is inquiry. In addition to learning more about space and what is in it, students develop an understanding of how we construct knowledge about the solar system and the rest of the universe.

Reproduction

Students examine the fundamental processes of reproduction, heredity, and the transmission of traits from one living generation to the next. Students investigate and debate current developments and uses of gene manipulation and therapy.

The focus of this unit is on inquiry. The unit is subdivided into three sub-units: cellular processes, asexual and sexual reproduction, and genetic changes.

Senior High (Grades 10–12)

Advanced Biology 11
(advanced, 1 credit)
Course Code: 011155

Recommended Prerequisite: Science 10

In Advanced Biology 11, students are expected to engage in opportunities to construct major concepts in biology and to demonstrate and apply these concepts in new situations. The content topics for this course should parallel those in Biology 11, but the curriculum should be more investigative in nature and provide for greater depth of treatment of cellular processes and mental health. Students should also have more opportunities for an independent study project involving a literature search.

Advanced Biology 12
(advanced, 1 credit)
Course Code: 011011

Recommended Prerequisite: Biology 11 or Advanced Biology 11

Although Advanced Biology 12 is a logical follow-up to Advanced Biology 11, the latter is not considered a prerequisite. The core and optional topics for Advanced Biology 12 are the same as those for Biology 12.

Students enrolled in this course will have multiple opportunities for independent study of topics in depth, and will be required to relate the ideas and processes of biological sciences to those of the physical sciences and the mathematical disciplines. An independent literature research is a requirement.

It is mandatory for students in Advanced Biology 11 and Advanced Biology 12 to complete a significant independent research project that relies, for the most part, upon experimental investigations.

Advanced Chemistry 11
(advanced, 1 credit)
Course Code: 011015

Recommended Prerequisite: Science 10 and Mathematics 10

Advanced Chemistry 11 takes an investigative approach to studying chemistry. Students are expected to engage in opportunities to develop major concepts in chemistry and to demonstrate and apply these concepts in new and novel contexts. The content topics for this course should parallel those of Chemistry 11 and three units are also required. These are In-depth Treatment, Literature Search and Report, and Investigation of a Physical Concept.

Advanced Chemistry 12
(advanced, 1 credit)
Course Code: 011017

Recommended Prerequisites: Chemistry 11 or Advanced Chemistry 11 and Advanced Mathematics 11

Advanced Chemistry 12 is a continuation of the Advanced Chemistry 11 course. In addition to the topics from the Chemistry 12 course, it is mandatory that students complete an In-depth Treatment, Literature Search and Report, and Investigation of a Physical Concept.

Advanced Physics 11
(advanced, 1 credit)
Course Code: 011020

Prerequisites: Science 10 and Mathematics 10

Advanced Physics 11 takes an investigative approach to studying physics. Students are expected to engage in opportunities to develop major concepts in physics and to demonstrate and apply these concepts in new and novel contexts. The content topics for this course should parallel those of Physics 11 but should provide for greater depth of treatment. In addition, students are required to do a Literature Search and Report as well as Investigation: An Independent Study/Experiement.

Advanced Physics 12
(advanced, 1 credit)
Course Code: 011022

Recommended Prerequisites: Physics 11 or Advanced Physics 11; Mathematics 11 or Advanced Mathematics 11

Advanced Physics 12 is a continuation of the Advanced Physics 11 course. In addition to exploring the topics from Physics 12, students are required to do Literature Search and Report as well as Investigation: An Independent Study/Experiement.

Agriculture/Agrifood 11
(academic, 1 credit or ½ credit)
Course Codes: 011224 (11, 1 credit)
011225 (11A, ½ credit)
011226 (11B, ½ credit)

Agriculture/Agrifood 11 meets the second science credit requirement for graduation. The course may be offered as a full credit (four modules) or as two half-credits (each comprising two modules).

For Agriculture/Agrifood 11, students are required to take Module 1: Fundamentals and a total of three of the optional Modules 2–6:

- Module 1: Fundamentals (compulsory) (15%)
- Module 2: Primary Production Systems (30%)

- Module 3: Support Systems (20%)
- Module 4: Beyond the Farm Gate (15%)
- Module 5: Foods (15%)
- Module 6: Project (20%)

Agriculture/Agrifood 11A comprises the compulsory Module 1: Fundamentals and two of the optional Modules 2–6. Agriculture/Agrifood 11B comprises an additional two modules selected from Modules 2–6.

Biology 11 and Biology 12 (academic, 1 credit each)

Course Codes: 011153 (11)
011156 (12)

Recommended prerequisites: Science 10 for Biology 11, and Biology 11 for Biology 12

Biology 11 and Biology 12 emphasize the science themes: change, diversity, energy, equilibrium, matter, and systems. These themes allow students to examine the connections within the science program and to understand ways in which individual sections of the program relate to the big ideas in science.

In addition to developing students' understanding of fundamental science concepts and principles, Biology 11 and Biology 12 refine students' understanding of the nature of science and technology and the interaction between biology and technology. Students develop their awareness of the impact of biology and associated technology on society and of the limitations of the biological sciences, science in general, and technology in solving societal problems.

Biology 11

Biology 11 comprises four units of study:

- Unit 1: Matter and Energy for Life (30%)

  Cells are introduced as the basic units of life. This unit investigates the role of cell structures in matter exchange and energy flow and the impact of technology on our understanding of cell structure and processes.

- Unit 2: Biodiversity (25%)

  The vast diversity of living things necessitates an organized system for their classification and study. This unit provides a thorough investigation and overview of life's unity and diversity within the biosphere.

- Unit 3: Maintaining Dynamic Equilibrium I (35%)

  All living things struggle to maintain an internal balance in response to the constant pressure of external phenomena. This unit investigates the role of various systems and the influence of behaviour in the regulation of homeostasis.

- Unit 4: Interactions among Living Things (10%)

  Ecosystems involve complex interactions between biotic and abiotic factors. This unit investigates the role of these factors on population dynamics and the flow of energy within ecological systems.

Biology 12

Biology 12 comprises four units of study:

- Unit 1: Maintaining Dynamic Equilibrium II (20%)

  All living organisms struggle to maintain an internal balance in response to the constant pressure of external phenomena. This unit investigates the role of chemical and electrochemical systems in the regulation of homeostasis. The impact of disease, medical technology, and drugs will also be explored.

- Unit 2: Reproduction and Development (16%)

  Reproduction is essential for the continuity of a species. This unit investigates the reproductive process at the cellular and multicellular levels. The influence of reproductive technologies will also be explore.

- Unit 3: Genetic Continuity (40%)

  Much of the structure and function of organisms is determined by their genetic material. This unit investigates the structure and replication of DNA, its transcription to RNA, and its translation into proteins. Discussion of how genes flow from one generation to the next serves as an introduction to basic genetics. The effects of mutation, genetic disease, and genetic engineering will also be explored.

- Unit 4: Evolution, Change, and Diversity (24%)

  Science attempts to provide an explanation for the origin and evolution of life on Earth. This unit investigates evidence that supports the theory of evolution and offers an analysis of evolutionary mechanisms.

Chemistry 11 and Chemistry 12 (academic, 1 credit each)

Course Codes: 011149 (11)
011151 (12)

Prerequisites: Science 10 for Chemistry 11, and Chemistry 11 for Chemistry 12. Exceptions may be made only at the principal's discretion under special circumstances.

Chemistry is the study of the composition, properties, and interactions of matter. Chemical knowledge advances within a societal context, and it is important for students to realize that the principles and laws of chemistry are the results of extensive scientific observations and analysis and that, although science is a powerful tool, it also has limitations.

The chemistry program emphasizes the science themes: change, diversity, energy, equilibrium, matter, and systems. These themes provide a means for showing the connections within the science program and provide a framework for teachers to show students how individual sections of the program relate to the big ideas in science. The program encourages students to participate in lifelong learning about chemistry and to appreciate chemistry as a scientific endeavour with practical impact on their lives and on society as a whole.

Chemistry requires students to read and view a range of print and visual text and to use a number of technical writing formats. The chemistry program must include explicit instruction in required technical reading and

writing skills and provide multiple opportunities for students to hone their skills in reading and writing technical text.

The chemistry program comprises two courses: Chemistry 11 builds on the fundamental attitudes, skills, and knowledge acquired in Science 10. Chemistry 12 provides a more in-depth exploration of various topics intended for students pursuing post-secondary chemistry.

Chemistry 11

Chemistry 11 comprises three units of study:

- Stoichiometry (40%)

  Chemistry is a qualitative and quantitative science. Students have generally been studying chemistry in a qualitative sense. In this introduction to the quantitative aspect of chemistry, students will examine stoichiometry. Stoichiometry is the mole-to-mole relationship in a balanced chemical equation.

- From Structures to Properties (30%)

  All matter is held together by chemical bonding. Bonding is discussed in detail in this unit. The different forces of attraction involved in matter and how it influences their properties will be studied.

- Organic Chemistry (30%)

  Organic chemistry is the study of molecular compounds of carbon. In this unit, the bonding capacity of carbon, hydrogen, oxygen, nitrogen, and the halogens will be reviewed, as will the potential for these atoms to form covalent compounds. The vastness of the number of organic molecules will be explored using isomers and polymers as examples. With so many different organic molecules to consider, students will come to appreciate the need for a systematic naming scheme. Students will be given opportunities to discover how the classification of organic molecules into different family groups depends upon the type of bonding and atoms present. Students will also examine ways in which these factors influence the reactivity of representative molecules from each of the different families.

Chemistry 12

Chemistry 12 offers students multiple learning opportunities to connect chemistry to technology, society and the environment. Instructional time must be made available for both reading and writing chemistry. There are a broad range of strategies that students can use for different reading tasks. Learners need explicit instruction and demonstration of the strategies they need to develop and apply in reading, viewing, interpreting, and using a range of chemistry and science texts for various purposes. This will develop their skills in communicating in science.

Learning experiences in chemistry should also provide abundant opportunities for students to communicate their findings and understandings to others, both formally and informally. Such experiences should encourage students to use effective ways to record and convey information and ideas and to use a vocabulary of chemistry and science in expressing their understandings.

Chemistry 12 requires that laboratory work be an integral part of the course. There are multiple ways of reporting data, and these provide students with useful study tools. Science logs are helpful for students to use writing to

speculate, theorize, summarize, discover connections, describe processes, raise questions, and make sense of new information using their own language as a step in the language of science.

Scientific literacy must be incorporated throughout Chemistry 12. Inquiry, problem solving, and decision making are integral to learning and to connections in the students lives. These processes allow students to engage in their learning in meaningful ways.

Chemistry 12 comprises four units of study:

- Thermochemistry (20%)

  Thermochemistry includes energy changes that occur with physical and chemical processes. Thermochemistry focuses on energy in various systems. Skills involving planning, recording, analyzing, and evaluating energy changes will be developed. Fuels for energy provide the context for student research and projects. These fuels could include energy for industry, energy from foods, or any other relevant context. This unit will help students to develop an interest in global energy issues and to generate possible solutions to a problem. Doing lab work and performing calculations allow students to discuss their evidence and problem solving in order to consolidate their understanding of energy change.

- From Solutions to Kinetics to Equilibrium (35%)

  Many factors affect the rate of chemical reactions. This unit focuses on developing students' understanding that reactions can be described as dynamic equilibrium systems by criteria, equations, calculations, concentrations, and experiments within the context of everyday phenomena. The context might be hemoglobin at high altitudes, ammonia in the Haber process, $CaCO_3$ in caves, acids corroding metals, sodium carbonate in the Solvay process, or any other relevant context.

  Problem-solving skills are used throughout this unit. Identifying variables and performing experiments to test equilibrium shifts and reaction rates are valuable learning experiences.

- Acids and Bases (25%)

  Acids and bases have an effect on aqueous systems. Acid-base systems involve proton transfer and are described quantitatively. Students will be encouraged to value the role of precise observation and careful experimentation while looking at safe handling, storage, and disposal of chemicals.

- Electrochemistry (20%)

  This unit builds on concepts dealing with electric forces, matter, and energy in chemical change, and quantitative relationships in chemical changes. Energy is involved in electrochemical changes. Problem solving and decision making in this unit will be helpful in creating an interest in the application of technology. Students investigate, through laboratory work and relevant problems, the ways in which science and technology advanced in relation to each other.

Food Science 12
(academic, 1 credit)
Course Code: 11026

Food Science 12 comprises four modules:

- Food Constituents (25%)

  This module investigates the constituents of food, the physical and chemical properties of the constituents, and applies the knowledge of food science through a project. Laboratory work is essential in this unit, as it is throughout the course.

- Preservation Factors (25%)

  In this module, deteriorative factors and their controls are investigated. Preservation is examined. High temperature (cooking, blanching, pasteurization, sterilization) and low temperature preservation (chilling, freezing, cold storage) are investigated.

- Food Quality and Commodities (25%)

  Subjective and objective quality measurements, sampling, and analysis are examined to evaluate assurance, measurement, and control. Commodities are investigated through laboratory experiments. Production of the commodities with emphasis on quality retention and production techniques is discussed.

- Food Packaging (25%)

  This module looks at food ingredients, labels, and packaging. The key to food product development and design is the use of sensory analysis. Systematic product development is examined and analyzed.

Geology 12
(academic, 1 credit or ½ credit)
Course Codes: 011211 (12, 1 credit)
011212 (12A, ½ credit)
011213 (12B, ½ credit)

Note: Geology 12 is eligible for credit toward the second science graduation requirement.

This course may also be offered as two half credits—Geology 12A and Geology 12B. The course has been designed to engage and meet the needs of a wide range of learners.

Geology 12 comprises six units, each requiring approximately 18 hours:
- **The Nature of Geology:** You and Geology, The Geologists, and Earth Systems (10%)
- **Earth Materials:** Crystallography, Mineralogy, and Petrology (15%)
- **Internal Processes:** Earth's Interior, Plate Tectonics, and Forces and Structures (20%)
- **Surface Processes:** Weathering, Erosion, and Deposition (20%)
- **Historical Geology:** Geological Principles, The Fossil Record, and Geological Time (15%)
- **Environmental Geology:** Geological Hazards, Resource Issues, and Waste Management (20%)

Geology 12A comprises units one to three. Geology 12B comprises units four to six.

Oceans 11
(academic, 1 credit or ½ credit)

Course Code: 011214 (11, 1 credit)
011158 (11A, ½ credit)
011200 (11B, ½ credit)

Note: Oceans 11 is eligible for credit toward the second science graduation requirement.

Oceans 11 offers students the opportunity to explore aspects of global and local oceanography and current ocean-related issues. The course is designed to be flexible and meet the needs and interests of Nova Scotian students by connecting the study of oceans with local economic and community interests.

Oceans 11 consists of four 25- to 30-hour modules. Successful completion of four modules is required to earn one science credit.

Learning modules include the following:

- Module 1: Structure and Motion (25%)
- Module 2: Marine Biome (25%)
- Module 3: Coastal Zones (25%)
- Module 4: Aquaculture (25%)
- Module 5: Fisheries (25%)

For Oceans 11, the following modules are compulsory: Structure and Motion, Marine Biome, and Coastal Zones. Depending on the students, teachers may wish to group the students to do one of the remaining two modules. For Oceans 11A, Structure and Motion and Marine Biome are compulsory. For Oceans 11B, Coastal Zones is compulsory.

Physics 11 and Physics 12
(academic, 1 credit each)

Course Codes: 011150 (11)
011152 (12)

Prerequisites: Science 10 and Mathematics 10 for Physics 11; Physics 11 or Advanced Physics 11 for Physics 12

Note: It is expected that students enrolling in Physics 11 will have successfully completed **both** Science 10 **and** Mathematics 10. Exceptions may be made only at the principal's discretion under special circumstances. It is expected that students enrolling in Physics 12 will have successfully completed Physics 11.

Physics is the branch of knowledge that studies the processes and structures of the natural world at the most fundamental level. Objects as small as atoms and as large as galaxies are investigated in an attempt to understand the underlying principles and structures. Physics is both descriptive and predictive: it can often explain how something works and predict how its related technologies can be improved.

The program is designed to challenge and engage students with a wide range of backgrounds to understand concepts and to apply their knowledge to new situations. The program, through its many hands-on, intellectually

stimulating experiences, enables students to see connections between physics and other sciences, and to see how physical principles underlie many of the seemingly unrelated facets of their everyday world.

Physics requires students to read and view a range of print and visual text and to use a number of technical writing formats, including explanations of problems and presentation of arguments. The physics program must include explicit instruction in required technical reading and writing skills and provide multiple opportunities for students to hone their skills in reading and writing technical text.

- Kinematics (15%)

  Students explore how forces, velocity, and acceleration can be measured and represented as vectors.

- Dynamics (22%)

  Students explore the relationship among force, mass, and acceleration, and the interaction of forces between two objects. The relationships among work, time, and power are analyzed quantitatively.

- Energy and Momentum (35%)

  Students explore momentum as it relates to an object's motion. Students determine which laws of conservation of energy or momentum are best used to solve real-life situations involving collisions.

- Waves (28%)

  Students explore the common characteristics of mechanical, sound, and light waves, and explain and predict the behaviour of waves.

Physics 12

- Force, Motion, Work, and Energy (55%)

  At the beginning of the twenty-first century, we still live in a Newtonian world. Students should relate their study of mechanics to everyday occurrences. They should come to understand that the engineered world in which we live is built on the principles of classical physics. From skateboards to space shuttles, the cause and effect of motion are understood and applied. Activities and investigations of everyday events that are generated by class discussion should be encouraged.

- Fields (21%)

  Students have had experience with contact forces. Forces that exert influence through space without contact are more difficult to visualize. Technological exploitation of our knowledge of electricity is expanding at an astonishing rate. It is important to present the historical context of discovery and development in this area. This historical context provides students with opportunities to explore the interconnectedness of science and technology.

- Waves and Modern Physics (12%)

  The time period between 1890 and 1930 saw the development of concepts that are still referred to as "modern physics." At the same time, research was being carried out on the nature of electromagnetic phenomena and the nature of light. It was in this period that these branches of research became linked. This

historical context provides students with a means to connect developments that occurred independently and seem, at first, to be unrelated. In this unit, students will develop an integrated view of the achievements that form the essence of twentieth-century physics.

- Radioactivity (12%)

  Students explore the full range of types of radiation, including natural and artificial sources, and assess the risks and benefits of exposure to each of them.

Science 10
(academic, 1 credit or ½ credit)

Course Codes: 011249 (10, 1 credit)
011246 (10A, ½ credit)
011247 (10B, ½ credit)

The senior high science program builds on a foundational science course, Science 10. It is strongly recommended that **all** students take Science 10 as a prerequisite to more specialized study in science(s) in grades 11 and 12.

Science 10 comprises four compulsory units, each requiring 25–30 hours of instructional time:

- Weather Dynamics (25%)

  Global climate and local weather patterns are affected by many factors and have many consequences. This unit asks students to consider questions such as, What decisions do we face due to weather conditions? How are our lives affected by changing weather conditions (short term) and changing climate (long term)? and What causes these weather patterns?
  This unit focuses on decision making and provides opportunities for observation and inquiry as well as problem solving and design technology. Sections in the unit require students to consider heat energy and its transfer, energy exchange within and between systems, observation of weather data, and the impact of weather forecasting.

- Chemical Reactions (25%)

  The study of chemical reactions provides students with an opportunity to apply their understanding of atomic structure to how chemicals react. By naming and writing common ionic and molecular compounds and by balancing a variety of equation types, students make connections to a variety of chemical examples in everyday life.

  This unit emphasizes the social and environmental contexts of science and technology associated with air and water pollution, and focuses on observation and inquiry. The laboratory research components of this unit provide opportunities for decision making as well as design technology.

- Motion (25%)

  The concept of motion allows students to investigate and develop their interest in sports that are part of their daily lives. Students have opportunities not only to investigate the principles of kinematics but also to apply kinematics to areas of individual interest.

It is recommended that the unit on motion focus on inquiry and problem solving. Students examine the relationships among observable variables that affect motion and conduct design investigations. By applying mathematical and conceptual models to qualitative and quantitative data collected, students can graphically represent motion to provide a visual representation of aspects of velocity and acceleration.

- Sustainability of Ecosystems (25%)

Due to a change in environmental attitudes, today's students are much more aware of the fragile nature of the environment. Despite technological advances that allow more efficient use of natural resources/systems, the drive to be economically competitive puts stress on the delicate environmental balance.

Many outcomes can be addressed by a decision-making focus that moves students toward a more sophisticated level of global thinking and that allow them to explore the concept of sustainability. Activities in the unit also provide an opportunity to focus on Observation/Inquiry.

Curriculum Documents

A *Closer Look: Energy and Me, Science 2 and Science 3, A Curriculum Resource* (2009)
A Closer Look: Let's Explore Plants and Soils, Science 3, A Curriculum Resource (2010)
A Closer Look: Let's Explore Trees, Science Primary–6: A Curriculum Resource (forthcoming)
A Closer Look: Using Energy Meters, Science 6 and Science 9, A Curriculum Supplement (2008)
A Closer Look: Using Microscopes, Science Grades 3–6 (2003)
Advanced Biology 11 (Draft, 2012)
Advanced Chemistry 11 and Advanced Chemistry 12 (Draft, 2011)
Advanced Physics 11 and Advanced Physics 12 (forthcoming)
Atlantic Canada Science Curriculum: Biology 11 (Implementation Draft, 2000)
Atlantic Canada Science Curriculum: Biology 12 (Implementation Draft, 2001)
Atlantic Canada Science Curriculum: Chemistry 11 and Chemistry 12 (forthcoming)
Atlantic Canada Science Curriculum: Physics 11 and Physics 12 (2002)
Atlantic Canada Science Curriculum: Science 10 (2012)
Atlantic Canada Science Curriculum: Science, Grade 1 (2005)
Atlantic Canada Science Curriculum: Science, Grade 2 (2005)
Atlantic Canada Science Curriculum: Science, Grade 3 (2005)
Atlantic Canada Science Curriculum: Science, Grade 4 (2006)
Atlantic Canada Science Curriculum: Science, Grade 5 (2008)
Atlantic Canada Science Curriculum: Science, Grade 6 (2008)
Atlantic Canada Science Curriculum: Science, Grade Primary (2004)
Chemistry 11 and Chemistry 12: A Teaching Resource (forthcoming)
Chemistry Data Booklet (2013)
Combining Science 5 and Health 5, Curriculum Supplement (2011)
Food Science 12 (Implementation Draft, 2003)
Foundation for the Atlantic Canada Science Curriculum (1998)
Geology 12 (Implementation Draft, 2002)
Nova Scotia Science Olympics, Science 4 and Science 5: A Curriculum Resource (2009)
Oceans 11 (forthcoming)
Oceans 11: A Teaching Resource, Volume 1 (forthcoming)
Oceans 11: A Teaching Resource, Volume 1 (forthcoming)
Physics 11 and Physics 12: A Teaching Resource (2005)

Science 10: A Teaching Resource (2012)
Science 4 / Science 5: A Handbook for Teaching Combined Classes (2011)
Science Primary / Science 1: A Handbook for Teaching Combined Classes (forthcoming)
Science Safety Guidelines, Grades Primary–12 (2005)

Skilled Trades

The need for skilled tradespeople in the Canadian economy is expected to grow dramatically over the next 10 to 15 years. Many baby boomers are retiring from the trades, and not enough young people are preparing to take over their roles. The Conference Board of Canada has predicted that there could be a shortage of up to 1 million skilled workers by 2020.[1]

With many sectors of the economy already desperately in need of skilled workers, one would think that large numbers of Canadian youth would be seriously considering a career in the skilled trades. However, a recent survey shows that only 32 percent of young people aged 13 to 17 are interested in the career opportunities that the trades offer.[2] This lack of interest may well be the result of some myths concerning the skilled trades such as the following:

- Skilled trades are not for students that get good grades.
- University is the only path to a good career.
- Skilled trades are dirty, noisy, and physically demanding.
- Jobs in the trades are dead-end jobs.
- Women do not have the strength to perform skilled trades[3].

Nova Scotia's Skilled Trades courses have been specifically designed to dispel these myths. They provide a unique opportunity for young women and men in Nova Scotia, including high academic achievers, to investigate careers in the skilled trades. Students will learn about the impact the skilled trades have on society, discover the tangible and intangible benefits of a skilled trades lifestyle, and experience the tremendous rewards that come from working with both their minds and their hands.

An important feature of any skilled trades career is the necessity to be familiar with, and able to safely and competently use, a wide range of tools. Throughout the suite of skilled trades courses, students will be taught to use the same tools as professional tradespeople. Through practical exercises and authentic projects, students will directly experience why physical capabilities, such as manual dexterity, balance, and hand-eye co-ordination are essential to success in the skilled trades.

The active decision by a student to enter into the skilled trades as a career choice can result in a number of positive outcomes. The skilled trades span many differing skill sets, so work choices are many. Quality of life increases as good-paying jobs result in higher earning capacity. There is the respect that comes from productive work and the professionalism that is required of skilled trades people.

All Skilled Trades courses comprise four topical clusters: Safety, Trades Living, Measurement and Calculation for Trades, and Tools and Materials. These courses will require a minimum of 110 hours of instruction, investigation, and physical work in the Skilled Trades Centre. Students will work individually and in groups. They will develop an appreciation for the skilled trades, professionalism, and the rewards of such a life career choice.

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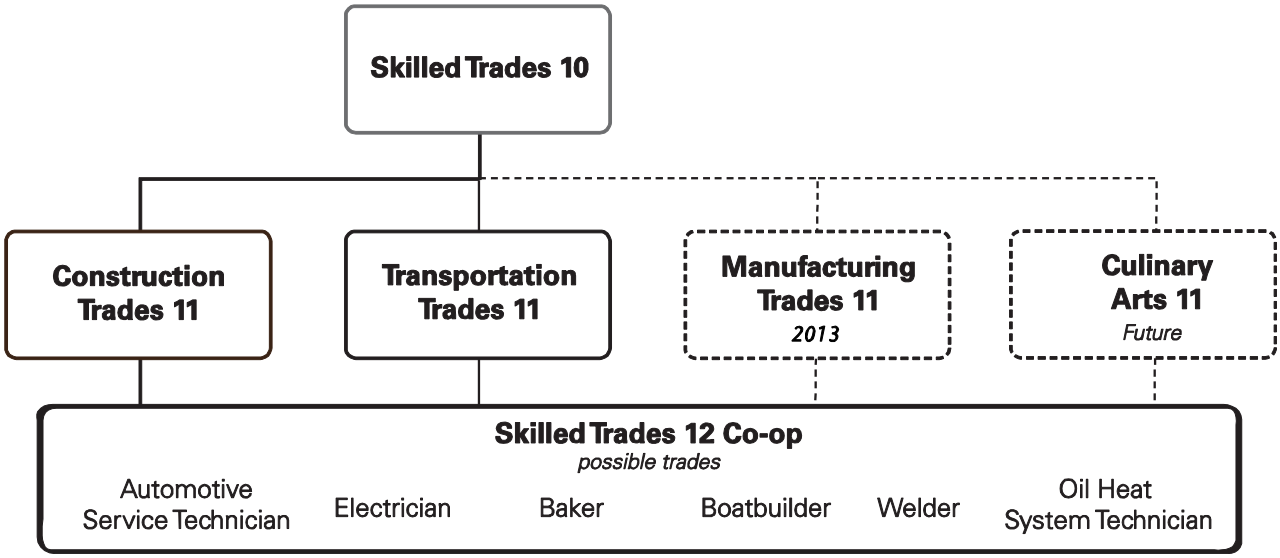
[1] Kitagawa, Kurtis. *Out of the Classroom, into The Workforce: Mining Youth Potential*, i. Ottawa, ON: The Conference Board of Canada, July 2002.

[2] Canadian Apprenticeship Forum (2006). *Apprenticeship: A First Choice Post-Secondary Option.* iv.

[3] Canadian Apprenticeship Forum (2006). *Apprenticeship: Your Career Starts Now: A Guide to Careers in the Skilled Trades.* 14–17.

Skilled Trades courses are taught by certified journeypersons. Under the terms of a Memorandum of Understanding with the Apprenticeship Division of the Department of Labour and Advanced Education, students who successfully complete Skilled Trades courses under the direction of a certified journeyperson teacher can receive up to 500 hours credit upon registration as an apprentice.



Skilled Trades courses are excellent opportunities for students to acquire skills and knowledge and appreciate the attitudes required of successful tradespeople. Whether a student decides to directly enter the workforce after high school, pursue post-secondary education, or not work in the trades at all, she or he will have abilities that will serve them throughout their lives.

Construction Trades 11 (academic, 1 credit)

Course Code: 736002

Construction Trades 11 will continue to focus on the skills developed in prerequisite Skilled Trades 10 and will define them in a construction environment. Trades that will be examined include Carpenter, Construction Electrician, Floor Covering Installer, Lather (Interior Systems Mechanic), Painter and Decorator, and Plumber.

Students will learn and develop the skills necessary to work on a construction site. Based entirely on the construction of a full-size building, each student will actively use the skills specific to each of the trades required to complete the project. For example, she or he will frame, wire, plumb, and finish a section of the project.

Continuing inside a culture of safety, emphasis will be placed on professional trade practices and the essential employability skills. Students will anticipate, engage and reflect as they learn.

Manufacturing Trades 11
(academic, 1 credit)
Course Code: 736021

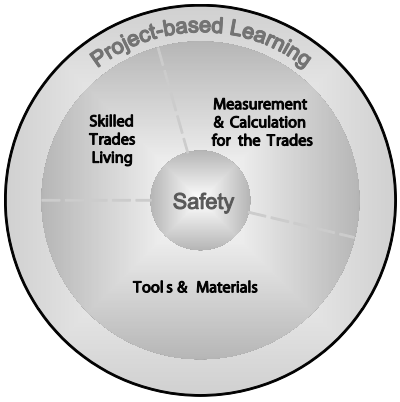
Manufacturing Trades 11 will continue to focus on the skills developed in prerequisite Skilled Trades 10 and will define them in a manufacturing environment. Trades that will be examined include Boatbuilder, Ironworker (Generalist), Marine Fitter, Sheet Metal Worker, and Welder.

Students will learn about and begin to develop the skills necessary to work in a manufacturing facility. Students will work with a variety of materials including wo0d, iron, and steel. They will be introduced to tools and equipment specific to this work such as oxy-acetylene and metal arc welders, box and pan brake, pipe threader, and shear.

Continuing inside a culture of safety, emphasis will be placed on professional trade practices and the essential employability skills. Particular attention will be on WHMIS and procedure data interpretation and adherence. Students will anticipate, engage and reflect as they learn.

Skilled Trades 10
(academic, 1 credit)
Course Code: 736001

Skilled Trades 10 will engage students in an investigation into the skilled trades, the impact that they have on society, and the opportunities that exist for those who pursue a livelihood by working as skilled tradespersons. In addition, Skilled Trades 10 will offer students multiple opportunities to experience the rewards that come from "hands-on, minds-on" in learning.



A person choosing to work in the skilled trades will have to be familiar with, and able to competently use, a range of tools. These skills include, but are not limited to, the selection of appropriate tools, manual dexterity, well developed hand-eye co-ordination, and balance. Skilled Trades 10 will introduce the student to these skills through practical exercises and project-based learning.

In addition to the use of tools, students will work on other basic trades skills including safety, measurement, blueprint reading, materials, document use, and materials handling.

Skilled Trades 12 (Co-op)
(academic, 1 credit)
Course Code: 736003 (Skilled Trades Co-op 1)
736004 (Skilled Trades Co-op 2)
` 736005 (Skilled Trades Co-op 3)

Prerequisite: Successful completion of Skilled Trades 10 and a Grade 11 Skilled Trades sector course.

Skilled Trades 12 Co-op may be offered at the grade 12 level as a full academic credit. Any student enrolled in

Skilled Trades 12 Co-op must successfully complete Skilled Trades 10 and a grade 11 skilled trades sector course. Skilled Trades 12 Co-op students will apply and build on their previous learning in work placements. The co-operative education placement must be with a certified journeyperson for students to earn this credit. A student may take up to three Skilled Trades 12 co-op credits.

Co-operative Education courses have three components:

- An in-school learning module requiring a minimum of 25 hours prior to commencement of the first co-op credit earned
- A community-based component requiring a minimum of 100 hours
- Reflective learning activities

A student must be 16 years of age to undertake the community-based component of any co-operative education course. Students may undertake the community-based component of a co-operative education course during or after school hours, at weekends, and/or during vacations, in accordance with board and school policies.

Skilled Trades 12 Co-op is governed by *Community-Based Learning Policy*.

Transportation Trades 11
(academic, 1 credit)
Course Code: 736202

Construction Trades 11 will continue to focus on the skills developed in prerequisite Skilled Trades 10 and will further define them in an automotive environment. Trades that will be examined include Automotive Painter, Automotive Service Technician, Heavy Duty Equipment Technician, Motorcycle Mechanic, Motor Vehicle Body Repairer, Partsperson, and Truck and Transport Mechanic.

Students will learn and develop the skills necessary to work in automotive/transportation sector trades. Students will work individually and in groups completing tasks that are common to these trades.

Continuing inside a culture of safety, emphasis will be placed on professional trade practices and the essential employability skills. Students will anticipate, engage, and reflect as they learn.

Curriculum Documents

Construction Trades 11 (Draft, 2010)
Skilled Trades 10 (Draft, 2010)
Skilled Trades 12 Co-op (Draft, 2011)
Transportation Trades 11 (Draft, 2011)

Social Studies

Foundation for the Atlantic Canada Social Studies Curriculum (1999) provides the framework for social studies curriculum development in Nova Scotia.

An effective social studies curriculum prepares students to achieve all essential graduation learnings. In particular, social studies, more than any other curriculum area, is vital in developing citizenship.

The general curriculum outcomes (GCOs) for the social studies curriculum are organized around six conceptual strands that are designed in concert with three selected skill processes. These GCO statements and skills identify what students are expected to know and be able to do upon completion of study in social studies.

General Curriculum Outcomes

Citizenship, Power, and Governance

Students will be expected to demonstrate an understanding of the rights and responsibilities of citizenship and the origins, functions, and sources of power, authority, and governance.

Culture and Diversity

Students will be expected to demonstrate an understanding of culture, diversity, and world view, recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.

Individuals, Societies, and Economic Decisions

Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.

Interdependence

Students will be expected to demonstrate an understanding of the interdependent relationship among individuals, societies, and the environment—locally, nationally, and globally—and the implications for a sustainable future.

People, Place, and Environment

Students will be expected to demonstrate an understanding of the interactions among people, places, and the environment.

Time, Continuity, and Change

Students will be expected to demonstrate an understanding of the past and how it affect the present and the future.

Processes

Communication

Communication requires that students listen to, read, interpret, translate, and express ideas and information through a range of mediums.

Inquiry

Inquiry requires that students formulate and clarify powerful questions, critically investigate problems, analyze relevant information, and develop rational conclusions supported by evidence.

Participation

Participation requires that students act both independently and collaboratively in order to solve problems, make decisions, and negotiate and enact plans for action in ways that respect and value the customs, beliefs, and practice of others.

The processes of inquiry, communication, and participation are introduced, developed, and further refined as students work toward achievement of key-stage curriculum outcomes in the conceptual strands.

Overview

Social studies embodies the main principles of democracy, such as freedom, equality, human dignity, justice, rule of law, and civic rights and responsibilities. The social studies curriculum promotes students' growth as individuals and as citizens of Canada and of an increasingly interdependent world. It provides opportunities for students to explore multiple approaches that may be used to analyze and interpret their own world and the world of others.

Social studies presents unique and particular ways for students to view the interrelationships among Earth, its people, and its systems. The social studies curriculum integrates concepts, processes, and ways of thinking drawn from the diverse disciplines of humanities, social sciences, and pure sciences. The social studies curriculum provides the multidisciplinary lens through which students examine issues affecting their lives from personal, academic, pluralistic, and global perspectives.

Elementary (Primary–Grade 6)

The elementary social studies program is organized around conceptual organizers at each grade level—Connections, Interactions, Change, Provincial Identity, Explorations, Societies, and World Cultures. It combines elements of the disciplines of history, geography, and economics, as well as aspects of sociology, anthropology, and political science.

Throughout the elementary program, students will be expected to look at topics and concepts from local, national, and global perspectives. In addition, students will work on the development of general skills as well as specific social studies inquiry-based skills. The social studies processes of communication, inquiry, and participation provide a solid scaffolding for all skill development.

The elementary social studies program provides an opportunity to authentically integrate literacy across the content areas—from "read alouds" to titles read by only one student, and from maps and atlases, statistical tables and graphs, and videos to historical fiction and information texts. In addition, elementary social studies provides an exceptional opportunity to introduce and develop skills around critical literacy.

The elementary social studies program also affords students and teachers the opportunity to utilize technology to augment learning in the social studies. Teachers should refer to the information and communication technology (ICT) outcomes pertinent to each appropriate grade level.

A number of schools across Nova Scotia offer combined classrooms in which students learn across two or more grades. The combined classroom offers programming in response to students' shared and individual needs. Select social studies curriculum documents (Social Studies 3–6) provide information on how social studies outcomes can be matched and aligned to support social studies learning in combined classrooms.

For Social Studies Primary to Social Studies 6, the conceptual organizers, with their unit titles, are as follows:

- Primary: Connections
  - Unit 1: Identity
  - Unit 2: Roots
  - Unit 3: Place

- Grade 1: Interactions
  - Unit 1: Groups
  - Unit 2: Environments
  - Unit 3: Place and Time
  - Unit 4: Needs and Wants

- Grade 2: Change
  - Unit 1: People
  - Unit 2: Technology
  - Unit 3: Economics
  - Unit 4: Environments

- Grade 3: Provincial
  - Unit 1: Place
  - Unit 2: Peoples
  - Unit 3: Citizenship

- Grade 4: Explorations
  - Unit 1: Exploration
  - Unit 2: The Nature of Exploration
  - Unit 3: Exploring Our World
  - Unit 4: Exploring the Landscape of Canada

- Grade 5: Investigating Past Societies
  - Unit 1: Introduction
  - Unit 2: Environment
  - Unit 3: Social Structure
  - Unit 4: Decision-Making

- Unit 5: Interactions
- Unit 6: My Society

❖ Grade 6: World Cultures
- Unit 1: An Introduction to Culture
- Unit 2: Environment and Culture
- Unit 3: Some Elements of Culture
- Unit 4: Expressions of Culture
- Unit 5: World Issues
- Unit 6: Canada: Reflections on a Multicultural Mosaic

Junior High (Grades 7–9)

The junior high social studies program is organized around conceptual organizers at each grade level—Empowerment, Canadian Identity, and Interdependence. It combines elements of the disciplines of history, geography, and economics, as well as aspects of sociology, archaeology, anthropology, political science, and law.

Throughout the junior high social studies program, students will be expected to look at topics and concepts from local, national, and global perspectives. In addition, students will work on the development of general skills as well as specific social studies skills. The social studies processes of communication, inquiry, and participation provide a solid scaffolding for all skill development.

The junior high program provides an opportunity to authentically integrate literacy across the content areas, including maps and atlases, statistical tables and graphs, videos, websites, and historical fiction, as well as information texts. In addition, junior high social studies provides an exceptional opportunity to introduce and develop skills around critical literacy.

The junior high social studies program also affords students and teachers the opportunity to utilize technology to augment learning in the social studies. Teachers should refer to the ITS outcomes pertinent to each appropriate grade level.

A number of schools across Nova Scotia offer combined classrooms in which students learn across two or more grades. The combined classroom offers programming in response to students' shared and individual needs. Select social studies curriculum documents provide information on how social studies outcomes can be matched and aligned to support social studies learning in combined classrooms.

Social Studies 7: Empowerment

The organizing concept for Social Studies 7 is "Empowerment." Empowerment involves having the means, opportunity, power, or authority to be self-assertive, and independent, and to take action. Empowerment was chosen to help students develop a better understanding of the significant impact that authority and power have in our lives. Students will analyze sources of authority in the lives of Canadian citizens, both today and in the past, and consider how power and privilege are, and have been, distributed in our society. Students will be called on to ask questions, investigate problems, analyze information and draw generalizations and conclusions about the role of empowerment in our history. They will consider questions such as, Who had official authority? Who had the power? How did they use this power and authority? Was it used fairly? How did their decisions impact on all Canadians? At the same time students will be challenged to examine the role of power and authority in their own lives.

The curriculum examines various aspects of empowerment. It is organized into seven units:
- Unit 1: Introduction
- Unit 2: Economic Empowerment
- Unit 3: Political Empowerment
- Unit 4 : Cultural Empowerment
- Unit 5: Societal Empowerment
- Unit 6: National Empowerment
- Unit 7: Reflection

The grade 7 social studies curriculum draws largely on the discipline of history but it includes elements of other social studies disciplines including economics, geography, political science and sociology. The curriculum recognizes the need for studies to be done in context. While the historical focus for grade 7 is the growth of the Canadian nation from the early 1800s to the end of World War 1, the curriculum is built on the premise that an historical study is not limited to only one time period. Reference is made to earlier periods as well as the contemporary. This curriculum builds on the history component of Social Studies 4 and 5 in which students learned about early First Nation societies, the impact of exploration, and early French and British societies in Canada. In Social Studies 8, students will further develop their understanding of Canada's history as they examine the significant issues and events from the 1920s to the modern day.

Social Studies 8: Canadian Identity

The organizing concept for Social Studies 8 is "Canadian Identity." Students explore this concept within the context of post-World War I Canada. Social Studies 8 builds on the skills and concepts of previous years and continues the chronology of Social Studies 7, wherein students examined Canada's history from the early 1800s through World War I. Social Studies 8 also continues and complements studies of Canada begun in even earlier grades. It is firmly grounded in the social studies disciplines of geography, history, economics, sociology, and political science. In addition, it contains many cross-curricular opportunities, particularly in language arts, visual arts, music, health education, science, and mathematics and contains myriad opportunities for the integration of technology.

The curriculum examines many facets of Canadian identity(ies). It is organized into six units:
- Unit 1: An Introduction to Canadian Identity
- Unit 2: Geographic Influences
- Unit 3: Decades of Change
- Unit 4: Citizenship
- Unit 5: Challenges and Opportunities
- Unit 6: Reflections on Canadian Identity

Social Studies 8 begins with a unit designed to provide students with a basic understanding of the concept of identity. They explore this concept, particularly as it pertains to Canada and its peoples, through a rich examination of Canadian art, music, and literature. This introduction provides the basis for a deeper and personal exploration of Canadian identity(ies) in the subsequent units of the course.

This deeper exploration begins with an examination of the impact of Canada's vast and diverse geography on identity. Students next investigate how historical events, trends, and peoples have contributed to the development of Canadian identity(ies). They then proceed to analyze how notions of citizenship, as reflected in Canadian political institutions, laws, rights and responsibilities, have affected and reflected Canadian identity(ies).

The study continues as students hypothesize about how Canada's responses to various environmental, economic, social, and political challenges and opportunities may affect future Canadian identity(ies). Finally, Social Studies 8 concludes with a unit designed to provide students with an opportunity to reflect upon the complete study, and creatively express their own personal understanding of "Canadian Identity."

Social Studies 9: Interdependence: Atlantic Canada in the Global Community

The grade 9 social studies course, Interdependence: Atlantic Canada in the Global Community, is designed to have students reflect upon the increasingly interdependent nature of our world and the implications this has on them as individuals, as Atlantic Canadians, and as global citizens.

The curriculum is organized into six units:
- Unit 1: An Introduction to Interdependence
- Unit 2: Culture in the Global Community
- Unit 3: Trade and the Global Community
- Unit 4: Environment in the Global Community
- Unit 5: Human Rights in the Global Community
- Unit 6: Citizenship in the Global Community

Separate units in Social Studies 9 will provide students with the opportunity to examine the concept of globalization, the cultural implications of globalization, the emergence of global patterns in production and trade, environmental issues that threaten the planet, and the international struggle to advance human rights. In discussing each of these issues, the curriculum will emphasize the link between local and global, between trends and sustainable development, and will conclude with a unit that asks students to consider their responsibilities as active citizens in responding to the challenges presented at both local and global levels.

A curriculum supplement, *Community Economic Development* (CED), is available. It provides students with the opportunity to become actively involved in their political, economic, social, and cultural futures. The focus of this curriculum supplement is to: a) inquire about the causes of economic transition; b) examine the history, principles, and accomplishments of CED; c) recognize that their knowledge, skills, perceptions, and attitudes equip them to assume active citizenship roles in their communities, now and in the future; and d) promote student involvement in community decision-making that pursues a future that is socially, economically, culturally, and environmentally sustainable.

Senior High (Grades 10–12)

Graduation requirements for students include the following:
- 1 Canadian history credit: African Canadian Studies 11, Canadian History 11, Études acadiennes 11, Gaelic Studies 11, Histoire du Canada 11, and Mi'kmaq Studies 10 are all eligible to meet this graduation requirement.
- 1 global studies credit: Advanced Global Geography 12, Advanced Global History 12, Advanced Global Politics 12, Global Geography 12, Global History 12, or Global Politics 12 are all eligible to meet this graduation requirement.

At the senior high level, students have the opportunity to pursue in depth the following disciplines: economics, geography, history, law, political science, and sociology.

In the senior high social studies program, students must be given the opportunity to expand their body of knowledge and to continue to develop their repertoire of skills. Through the independent use of libraries and of print, photographic, electronic, and other media, students should be given the opportunity to engage in research that supplements classroom learning experiences.

Historical study at the senior high level requires students to practise the skills of research and inquiry; to acquire a body of knowledge pertinent to a particular area of study; to appreciate the nature of evidence and the role of

perspective; to understand cause and effect and the relationships among major historical periods, events, situations, and conditions; and to understand the role of the past in the present.

The study of senior high geography addresses the nature of the planet and the forces that did and do shape it; the human settlement of the planet and the patterns that settlement reveals; the interaction of humanity and the environment; and the methods and resources geographers use to study these. Senior high geography is founded upon the themes of modern geography: location, region, pattern, spatial interaction, human/environment interaction, and culture. It is also founded upon the skills of geography, which include data collection, processing, and interpretation.

Advanced Global Geography 12 (academic, 1 credit)

Course Code: 012359

Note: Advanced Global Geography 12 is eligible for one credit toward the global studies graduation requirement.

Advanced Global Geography 12 is based upon Global Geography 12. It is designed such that both courses could be offered simultaneously within the same classroom.

Advanced Global Geography 12 includes all the specific curriculum outcomes in Global Geography 12 with an additional unit, as well as an extra specific curriculum outcome in the introductory unit, and a modified specific curriculum outcome in each of the other units. Advanced Global Geography 12 students will also be expected to plan, research, present, and defend a formal problem-based research project using the skills and methods of geography.

The additional unit is titled Culture and Politics. It examines the global distribution of different cultural groups, the extent to which the environment is affected by cultural attitudes and practices, the evolution of the contemporary global political pattern, and the spatial disjunctions between political, cultural, and other patterns.

Advanced Global History 12 (advanced, 1 credit)

Course Code: 012360

Note: Advanced Global History 12 is eligible for one credit toward the global studies graduation requirement.

Advanced Global History 12 is based upon Global History 12. It is designed such that both courses could be offered simultaneously within the same classroom.

Advanced Global History 12 includes all the specific curriculum outcomes in Global Geography 12 with additional specific curriculum outcomes in each of the five units of the course. Advanced Global History 12 students will also be expected to plan, research, present, and defend a formal problem-based research paper using the historical method.

Advanced Global Politics 12 (advanced, 1 credit)

Course Code: 012435

Note: Advanced Global Politics 12 is eligible for one credit toward the global studies graduation requirement.

Advanced Global Politics 12 is based upon Global Politics 12. It is designed such that both courses could be offered simultaneously within the same classroom.

Advanced Global Politics 12 includes all the specific curriculum outcomes in Global Politics 12 with additional specific curriculum outcomes in each of the five units of the course. Advanced Global Politics 12 students will also be expected to plan, research, and write a formal thesis-directed paper.

African Canadian Studies 11 (academic, 1 credit)

Course Code: 012218

Note: African Canadian Studies 11 is eligible for one credit toward the Canadian history graduation requirement.

The African Canadian Studies course focuses on the history of people of African descent in Canada. Presented in a challenging, dynamic, and interesting manner, the course is divided into six modules:

- Module 1: Evolution and Change
- Module 2: Elements of the African Diaspora
- Module 3 A: Impact of Colonial Expansion
- Module 3 B: Struggle and Identity
- Module 4: Independent Study
- Module 5: In Pursuit of Justice
- Module 6: The Journey Toward Empowerment

This course is designed to equip students with a sound understanding of the global experience, local achievements, and contributions of Canadian people of African descent. It uses the disciplines of geography, history, economics, political science, and sociology to highlight the experiences, struggles, and life stories of people of African descent who have contributed to world history.

Designed to be inclusive, African Canadian Studies 11 will appeal to learners of all ability levels and ethnic and racial backgrounds.

Canadian History 11 (academic, 1 credit)

Course Code: 012330

Note: Canadian History 11 is eligible for one credit toward the Canadian history graduation requirement.

Canadian History 11 is organized around five continuing or persistent questions in Canada's history. These are questions of current concerns that have deep historical roots that previous generations of Canadians have had to address. Their efforts have shaped the development of Canada and its identity. These questions form the basis for

five of the six units in the course: Globalization, Development, Sovereignty, Governance, and Justice. The sixth unit, Independent Study, engages students in a specific piece of historical research.

Historiography and the historical method are central to this course in its examination of Canada's history from the first peoples in North America to the present. Key topics studied through these approaches include, but are not limited to, First Nations, Colonialism, Confederation, the World Wars, Free Trade, Constitutional Issues, Canada's Role in the Global Community, Industrialization, Human Rights Issues, and Immigration/Migration.

Economics 11
(academic, 1 credit)
Course Code: 012023

Economics 11 is a course in Canadian economics and begins with a general study of the economy of the local community, leading into such selected aspects as important private firms, important occupational groups, local unions, three levels of government, government spending, taxation; and expanding to the provincial and regional economy to consider primary, secondary, and tertiary industries. Distribution of wealth and power, labour movement, free enterprise, crown corporations, taxation, and economic ties with the world are also considered as parts of the Canadian economy. Various economic principles, issues, and theories that affect the lives of students are included.

Economics 12
(academic, 1 credit)
Course Code: 012024

Economics 12 is a course in national and international economics and is an extension of Economics 11. It provides a deeper study of selected economics issues as well as consideration of certain theories. The unit on microeconomics considers such topics as demand and supply, product differentiation, production, and markets. Macroeconomics considers national accounts; economic indicators and government policy; money, banking, and finance; and economic growth. There are also three optional units: History of Economic Ideas; International Economy; and Comparative Economics.

Gaelic Studies 11
(academic, 1 credit or ½ credit)
Course Codes: 012340 (11, 1 credit)
012341 (11A, ½ credit)
012342 (11B, ½ credit)

Note: Gaelic Studies is eligible for one credit toward the Canadian history graduation requirement.

Gaelic Studies 11 may be offered as a full credit or as half-credit options. Gaelic Studies 11A comprises Modules 1, 2, and 5, Gaelic Studies 11B comprises Modules 3, 4, and 6.

Gaelic Studies 11 affirms the language, history, tradition, and arts of Nova Scotia and other Canadian Gaels, and explores the continuing influence of the Gaelic culture on life in local, national, and global contexts. Learning experiences in this course will enable all students to develop knowledge and understanding of and respect for the unique nature of the Gaelic culture. In students of Gaelic ancestry, it will foster a positive self-image and an understanding of their identity and roots.

Gaelic Studies 11 provides opportunities for students to experience the diversity of expression of many aspects of Gaelic culture and to recognize the values inherent in Gaelic community life. It presents unique opportunities to

take learning beyond the classroom to include community and industry. The course focuses on history and identity, oral tradition and literature, and the arts of the Gaels, and provides opportunities for students to pursue a specific area of interest or strength through project work.

Gaelic Studies comprises six modules:

- Module 1: Roots
- Module 2: Settlement, Growth, and Identity
- Module 3: Economic, Military, and Political Life
- Module 4: Independent Study
- Module 5: Oral Tradition and Literature
- Module 6: Gaelic Arts

Geography 10 (academic, 1 credit)

Course Code: 012223

Geography 10 examines physical geography. This course has two sections. Part A: The Graphic Environment helps students develop an understanding of and practical experience in constructing, using, and interpreting some of the image, map, and graphing skills geographers commonly use to analyze the environment. Part B: The Physical Environment deals with the various land, ocean, and atmospheric processes that are at work sculpting the face of the earth. These processes illustrate that Earth's ecosystems are in delicate balance and require careful stewardship.

Eight units comprise the Physical Geography course:

- Part A: The Graphic Environment
  - Unit 1: Data Collection
  - Unit 2: Data Processing and Representation
  - Unit 3: Data Interpretation and Utilization

- Part B: The Physical Environment
  - Unit 1: Geographic Perspective
  - Unit 2: Land Environment
  - Unit 3: Ocean Environment
  - Unit 4: Atmospheric Environment
  - Unit 5: Spaceship Earth

Geography 11 (academic, 1 credit)

Course Code: 012019

Note: Geography 11 is currently under review and development.

Geography 11 covers contemporary Canadian geography with its regional and cultural diversities and includes a systematic examination of such general characteristics as Canada's vast area, its northern character, its climate, and its economic development. In the first half of the course, Canada is studied both in the context of its continental North American setting and through its component regions and sub-regions. The second half provides a thematic treatment of such topics as pollution, urbanization, resource development, changing technology, and rural life.

Geography 12
(academic, 1 credit)
Course Code: 012021

The aim of Geography 12, which focuses on settlement geography, is to increase the student's understanding of the spatial organization of urban and rural settlement and settlement systems and the ways these evolve, both inside and outside Canada. The course also shows students how order exists in human-environment relationships; how historical developments have influenced settlement patterns; and what impact urbanization processes have had and continue to have upon rural areas. Units include Urban Settlement, Rural Settlement, Rural-Urban Interaction, and Community Analysis and Planning, with special emphasis given to Atlantic Canada.

It is strongly recommended that the students have prior knowledge of both physical geography and the geography of Canada before studying this course.

Geography of Canada 11
(graduation, 1 credit)
Course Code: 012020

Geography of Canada 11 explores Canada's distinct geographic systems. Students will investigate the interactions of natural and human systems within Canada, as well as Canada's economic, cultural, and environmental connections. Students will use a variety of geo-technologies and inquiry and communication methods to analyze and evaluate geographic issues.

Geomatics 12
(academic, 1 credit)
Course Code: 012361

Geomatics 12 is based on a learning outcomes framework that provides learning opportunities through which students become skilled, reflective, and critical creators and consumers of geomatic products. Geomatics 12 is comprised of four modules:

- Module 1: Exploration
- Module 2: Basic Skill Building
- Module 3: Advanced Skill Building and Application
- Module 4: Applied Geomatics Project

Global Geography 12
(academic, 1 credit)
Course Code: 012209

Note: Global Geography 12 is eligible for one credit toward the global studies graduation requirement.

Global Geography 12 explores major contemporary global issues, using the discipline of geography, in an attempt to answer the question, "How did the world arrive at its current state at the beginning of the twenty-first century?" Global Geography 12 is organized into six units: The Global Geographer, The Planet Earth, Population, Resources and Commodities, and Urbanization. The Global Geographer introduces students to the discipline of geography and establishes important year-long expectations related to skills and understandings, including the concept of interdependence. The Planet Earth examines the unique planet Earth, its ecosystems, the planetary state of health, and the relationship between humans and natural disasters. Population examines

measures of quality of life, population distributions and densities, and vital statistics. Urbanization looks at patterns of urbanization, models of urban structure, growth trends, and urban improvement strategies. Global Geography 12 students will also be expected to employ research methods appropriate to the discipline of geography.

Global History 12 (academic, 1 credit)

Course Code: 012169

Note: Global History 12 is eligible for one credit toward the global studies graduation requirement.

Global History 12 explores major contemporary global issues, using the discipline of history, in an attempt to answer the question, "How did the world arrive at its current state at the beginning of the twenty-first century?" Global History 12 is organized into six units: The Global Historian, The Dynamics of Geo-Political Power, The Challenge of Economic Disparity, The Pursuit of Justice, and Societal Change. The Global Historian introduces students to the discipline of history and establishes important year-long expectations related to skills and understandings, including the concept of interdependence. The Dynamics of Geo-Political Power examines the "Cold War" as well as the current and future geo-political situation in the world. The Challenge of Economic Disparity investigates the economic disparity between the countries of the "North" and those of the "South" in the world today. The Pursuit of Justice looks at the events and forces that have shaped contemporary conceptions of justice. Societal Change looks at technological development, societal change, as well as the ethical and moral implications of both. Global History 12 students will also be expected to employ research methods appropriate to the discipline of history.

Global Politics 12 (academic, 1 credit)

Course Code: 012423

Note: Global Politics 12 is eligible for one credit toward the global studies graduation requirement.

Global Politics 12 explores a cross-section of global political issues through a critical inquiry process. Global Politics 12 is organized into five units: The Global Citizen, Political Systems, The Canadian Political System, Comparative Politics, and International Relations. The Global Citizen introduces students to a range of issues associated with global politics and establishes important year-long expectations related to critical inquiry and research skills, including the importance of engaging in active citizenship. The Political System unit provides an opportunity for students to examine a range of global political ideologies, political organizations, and political systems. The Canadian Political System unit examines the historical roots of the Canadian political system; the structures of Canadian federal, provincial, territorial, First Nations, and municipal governments; and the division of power among federal, provincial, territorial, First Nations, and municipal governments. The Comparative Politics unit explores various contemporary global governing systems and compares and contrasts Canadian and United States governing systems and electoral systems. The final unit on International Relations looks at the issues related to global interconnectedness, organizations that govern relations among nations, the influences of cultural beliefs on global politics, and the role of media/technology on global politics.

History 10 (academic, 1 credit)

Course Code: 012008

History 10, which focuses on ancient and medieval history, allows students to develop an understanding of the concept of civilization by examining the origins of civilization and comparing some civilizations that have contributed to the nature of the modern world.

The course has six broad chronological divisions: The Evolution of Human Beings; The Birth of Civilizations (including Mesopotamia, Egypt, China, Africa, and the Americas); Greece; Rome; The Middle Ages; and The Renaissance and Reformation. Each of these divisions can be considered from a number of points of view, including geography, archaeology, society, language, religion, and politics. Major themes could be developed spanning the broad chronological period (for example, agriculture, development of government, religion, and revolutions).

History 11 (academic, 1 credit)

Course Code: 012009

History 11, which focuses on the history of Western Europe, examines the emergence of Europe on the international scene. Starting with the age of European exploration and discovery, students trace the rise and fall of European powers in the seventeenth, eighteenth, nineteenth, and twentieth centuries. Themes include absolutism, nationalism, imperialism, colonialism, and industrialization. Key concepts include the notions of progress, power, and rights of the state, the group, and the individual. All of these emerge from the examination of key events, conditions, and individuals whose impact was significant in the emergence of the modern western world.

Law 12 (academic, 1 credit)

Course Code: 012028

Law 12 is designed to introduce high school students to the area of law and to provide them with skills and understandings that will enables them to better understand their rights and responsibilities as citizens. Law 12 is organized with three compulsory units—Foundations of Justice and the Law, Criminal Law, and Civil Law—and a fourth unit that enables students to sample from a variety of legal topics. Foundations of Justice and the Law looks at the roots and history of law, especially in Canada. Criminal Law examines the procedure and parties involved in investigating and trying a criminal case, as well as sentencing options. Civil Law focuses torts, contractual obligations, and family law. The fourth unit provides opportunities to look at Aboriginal Law, International Law, Immigration Law, Human Rights Law, Environmental Law, Employment Law, Consumer Law, as well as Media and Internet Law. Law 12 students will also be expected to employ research methods appropriate to the discipline of law.

Mi'kmaw Studies 10 (academic, 1 credit)

Course Code: 012226

Note: Mi'kmaw Studies 10 is eligible for one credit toward the Canadian history graduation requirement.

Mi'kmaw Studies 10 provides students with an understanding of historical and contemporary issues in Mi'kmaq society.

The course considers events, trends, and traditions in the history of the Mi'kmaq. The course incorporates an issues-based approach and considers broad concepts such as governance, culture, justice, education, and spirituality.

Students analyze historical and contemporary issues in Mi'kmaq society, which enable them to achieve a greater understanding of and respect for Mi'kmaq contributions to society.

Political Science 12
(academic, 1 credit)
Course Code: 012093

Political Science 12 is a three-part course, with Part 3 being optional. Part 1 develops an understanding of the concept of politics, Part 2 develops an understanding of Canadian politics in its many aspects, and Part 3 involves a comparative study of democratic and other systems of government.

Sociology 12
(academic, 1 credit; open, 1 credit)
Course Code: 012420 (academic)
012027 (open)

Sociology 12 is designed to introduce high school students to the discipline of sociology. Sociology 12 is organized into five units—Sociology: A Social Science, Culture: A Shared Human Experience, Socialization: The Shaping of Human Behaviour, Social Organization: Living Together as Humans, and Social Control: Deviant and Conformist Behaviour. Sociology: A Social Science introduces students to sociology, its major theoretical perspectives, and sociological research methods. Culture: A Shared Human Experience looks at the concept of culture, as well as cultural variation, cultural uniformity, and cultural change. Socialization: The Shaping of Human Behaviour examines the relationships between socialization and the development of individual personality and the process of human learning. Social Organization: Living Together as Humans explores the role of groups in human societies, as well as social stratification and the role of social institutions. Social Control: Deviant, and Conformist Behaviour examines how societies attempt to exert social control, deviance, as well as aggression and violence.
Sociology 12 students will also be expected to apply theoretical perspectives to the concepts they study and will be expected to employ research methods appropriate to the discipline of sociology.

Curriculum Documents

African Canadian Studies 11 (Implementation Draft, May 2009)
Atlantic Canada Social Studies Curriculum: Atlantic Canada in the Global Community, Grade 9 (2006)
Atlantic Canada Social Studies Curriculum: Community Economic Development (2000)
Atlantic Canada Social Studies Curriculum: Grades Primary–2 (Implementation Draft, October 2005)
Atlantic Canada Social Studies Curriculum: Social Studies 3 (forthcoming)
Atlantic Canada Social Studies Curriculum: Social Studies 4 (forthcoming)
Atlantic Canada Social Studies Curriculum: Social Studies 5 (forthcoming)
Atlantic Canada Social Studies Curriculum: Social Studies 6: World Cultures (Implementation Draft, April 2010)
Atlantic Canada Social Studies Curriculum: Social Studies 7 (Implementation Draft, September 2005)
Atlantic Canada Social Studies Curriculum: Social Studies 8 (Implementation Draft, August 2006)
Canadian History 11 (Implementation Draft, 2002)
Foundation for the Atlantic Canada Social Studies Curriculum (1999)
Gaelic Studies 11 (Implementation Draft, 2002)
Geography 10 (No. 143, 1996)
Geomatics 12 (Draft, April 2007)
Global Geography 12 (reprinted, 2003)
Global History 12 (reprinted, 2003)
Social Studies: Canadian Economy 2203 (NL, September 2004)
Sociology 12 (Implementation Draft, April 2010)

Technology Education

Foundation for Atlantic Canada Technology Education Curriculum provides the framework for future development of technology education courses.

The focus of technology education curriculum is the development of students' technological literacy, capability, and responsibility. Its primary strategy is to engage them in the design, development, management, and evaluation of technological systems as solutions to problems.

Technological literacy is the ability to use technological systems, manage technological activities, and make informed decisions about technological issues.

Technological capability is an expression of ability and understanding through considered and planned action that combines technical skill and technological knowledge to achieve a desired result.

Technological responsibility requires an understanding of the consequences of technological activity and a willingness to take appropriate action.

Technology education engages students directly in constructing technological solutions to everyday, real-world problems.

Technology education employs a wide variety of hands-on activities. Students employ a wide range of technological resources and processes to design, fabricate, and test solutions to familiar and unfamiliar problems.

Technology education provides students with an understanding of the fundamental technological principles of the systems that are employed in all modern technologies, and in turn enables them to relate workplace technologies to daily life. It enables students to develop specific technical skills in the context of real-world problems and relate these skills to careers.

The program provides students with both an orientation to technology and activities to develop technical skills. As a result of the program, students will demonstrate a broad set of intellectual and social abilities needed to solve problems and make value judgments about using technology in their own world. Through this approach, students will develop creativity, reasoning, and the ability both to communicate and make decisions.

Teachers should encourage students to undertake meaningful activities that are firmly based in the world beyond school. In addition to satisfying the students' urge to produce a finished product, the activities should challenge students to develop their critical thinking and problem-solving skills.

Research and development, troubleshooting, simulation, and constructing all involve problem solving. Students who can solve problems will become independent learners, thinkers, and decision makers. Twenty-first century career environments will require people who are skilful, innovative, able to adapt to change, and who know how to tackle problems.

At all levels of the technology education program, a variety of problem-solving opportunities should be developed involving different contexts and technologies. Students should be involved in producing models, devices, and structures to illustrate and facilitate their problem solving. It is important that students work primarily with wood, metal, and other composite materials, integrating materials where possible. Different technologies and systems should also be involved as students pursue various needs and ideas. Each activity should give students the

opportunity to create something that works, that is aesthetically pleasing, and that serves a real need in their world.

Junior High (Grades 7–9)

Technology Education 7–9 offers students a broad range of design challenge learning activities under the following topics at all three grade levels:

- Communications Technology
- Energy Engineering
- Inventions and Innovations
- Production Technology

These modules allow all students to experience design-and-make tasks that employ the Design Process to solve a range of problems while demonstrating appropriate measuring skills, safe practices, environmental responsibility, technical drawing skills, and STEM (Science, Technology, Engineering, and Math) connections.

The curriculum guide provides a variety of design challenges as well as suggestions to help teachers design their own design-and-make tasks and design challenge activities within the outcomes framework.

Senior High (Grades 10–12)

Communications Technology 11
(academic, 1 credit)

Course Code: 327075

Note: Communications Technology 11 is eligible for one credit toward the technology graduation requirement.

Communications Technology 11 is an academic credit that involves using a hands-on, minds-on approach to electronic, print, and web communication concepts. Students will be provided with hands-on activities at an *introductory to intermediate* level in a broad spectrum of technological concepts, both in traditional media and new media in the areas of digital photography, technical design, graphic design, web publishing, video production, broadcasting, and animation. By the end of the course students are able to use a range of technological tools, processes and applications, integrate communications technology with other academic disciplines, design and create communication materials that solve technological problems, and explain the consequences of technology and how it affects society.

Communications Technology 12
(academic, 1 credit)

Course Codes: 327076

Note: Communications Technology 12 is eligible for one credit toward the technology graduation requirement.

Communications Technology 12 is an academic credit that involves using a hands-on, minds-on approach to electronic, print, and web communication concepts for all students. Students will be provided with hands-on activities at an *intermediate to advanced* level in a broad spectrum of technological concepts, both in traditional

media and new media in the areas of digital photography, web publishing, and broadcasting, with a focus on journalism. Other activities may involve video production, graphic design, animation, and technical design. By the end of the course students are able to use a range of technological tools, processes and applications, integrate communications technology with other academic disciplines, design and create communication materials that solve technological problems, and explain the consequences of technology and how it affects society. Communications Technology 11 is *not* a prerequisite for Communications Technology 12.

Construction Technology 10
(open, 1 credit)

Course Code: 006036

Note: Currently under review. Construction Technology 10 11 is eligible for one credit toward the technology graduation requirement.

The construction technology course helps develop in students an understanding of construction technology, of its applications related to the residential construction industry, of the organization of construction, and of construction's impacts on society and the environment. The course offers a broad range of opportunities for students to experience hands-on learning activities in traditional and alternative residential construction technology projects, student enterprise, and building construction as it relates to a variety of structures. Materials are also provided about leading architects and designers in Canadian construction as well as for integrating the course with other subject areas.

Design 11
(academic, 1 credit or ½ credit)

Course Codes: 327021 (11, 1 credit)
327016 (11A, ½ credit)
327017 (11B, ½ credit)

Note: Design 11 is available as a full credit or half-credit course. It does not satisfy the compulsory arts education graduation requirement. Design 11 is eligible for one credit toward the technology graduation requirement.

Design 11 involves students in using communications and information technologies to develop solutions to design problems and to conduct inquiries into design issues. Students work independently and as part of design teams to explore design in a range of practical contexts. Modules for this course include the following: Design Fundamentals; Communications Design; The Built Environment; Product Design; and Design Team or Independent Project.

Electrotechnologies 11
(academic, 1 credit or ½ credit)

Course Codes: 327022 (11, 1 credit)
327018 (11A, ½ credit)
327019 (11B, ½ credit)

Note: Electrotechnologies 11 is eligible for one credit toward the technology graduation requirement.

Electrotechnologies 11 enables students to gain an understanding of electrical and electronic systems and subsystems. Students explore a broad range of technology applications, in a hands-on setting, for example, electric motors, appliances, audio and video devices, sensors, control devices, security systems, and control systems. Modules for this course include the following: Electro-assembly; Power Distribution and Conversion; Control Systems; Digital Technology; and Design Team or Independent Project.

Energy, Power, and Transportation 11
(open, 1 credit)

Course Code: 006041

Note: Energy, Power, and Transportation 11 is eligible for one credit toward the technology graduation requirement.

By the end of the Energy, Power, and Transportation course, students are able to demonstrate in a variety of ways an understanding of different forms of energy, the ways energy is harnessed, its impact on the environment, and the application of energy to modern-day technological systems. Energy, Power, and Transportation is a hands-on course offering students opportunities to construct and experiment with a variety of energy and power systems.

Exploring Technology 10
(academic, 1 credit)

Course Code: 006068

Note: Exploring Technology 10 is eligible for one credit toward the technology graduation requirement.

This technology course provides students with hands-on activities and introduces them to a broad spectrum of technological concepts. By the end of the course, successful students are able to use a range of technological applications, integrate technology with other academic disciplines, create devices and systems to satisfy their needs, explain how technology affects society, and use technology in a variety of problem-solving situations. Modules of study include Fundamentals of Technology, Green Technology, Media Technology, Control Technology, Engineering Technology, and Exploring Trades Technology.

Production Technology 11 and Production Technology 12
(open, 1 credit each)

Course Codes: 006039 (11)
006040(12)

Note: Production Technology 11 and Production Technology 12 are each eligible for one credit toward the technology graduation requirement.

By the end of each production technology course, students are able to demonstrate the processes required to create and manufacture products using a variety of materials, tools, and methods.

Entrepreneurship in manufacturing processes is an integral part of the grade 12 Production Technology course.

Curriculum Documents

Communication Technology 11 and Communication Technology 12 (Draft, 2010)
Design 11 (2000)
Electrotechnologies 11 (2000)
Energy, Power, and Transportation 11 (No. 146, 1996)
Exploring Technology 10 (Draft, 2008)
Foundation for Atlantic Canada Technology Education Curriculum (2001)
Production Technology 11 and Production Technology 12 (No. 148, 1996)
Technology Education 9 (Draft, April 2012)

Technology Integration and Information and Communication Technology Courses

The Curricular Integration of Information and Communication Technology

The Department of Education's Framework document, *The Integration of Information and Communication Technology within the Curriculum* describes what students will be expected to know and be able to do as a result of the integration of information and communication technology (ICT) within curriculum programs. The document is currently available on the EDnet website. New and revised curricula embed technology-based learning opportunities through which students achieve curricular and technology integration learning outcomes in collaborative, interactive, blended and fully online learning environments. Software tools and digital resources are produced and acquired by the Department of Education and Early Childhood Development and partner school boards to engage 21st-century learners' interests, skills, and learning requirements. ICT helps our students to excel and interact virtually anywhere in the world.

Elementary (Primary–Grade 6)

Elementary software and hardware are provided to classrooms through a combination of Department and School Board purchases, as well as a provincial technology refurbishing and reuse program. With teacher guidance, elementary school learners develop technology skills and achieve ICT learning outcomes through experiences that integrate classroom technologies. These learning experiences support students as they collaborate, solve problems and develop research skills, and create and communicate their learning to real audiences through writing and many other forms of representation. This includes audio and video recordings, computer drawings, simple web pages, and multimedia representations. Students at this level publish their work on school websites and in online environments, such as a learning content management system. Students' personal information and privacy are protected as specified by the *Public School Network Access and Use Policy*.

Junior High (Grades 7–9)

Learners in the junior high years use information and communication technology for a range of constructivist learning purposes in all curriculum areas. For example, students explore concepts under study using specialized software—measuring, sampling, recording and utilizing computer-based simulations. They demonstrate an understanding of, and a commitment to, accuracy, ethical behaviour, and personal privacy and safety as they create and distribute information. Students explore and express their perceptions, feelings, ideas, and attitudes in a range of aural, print, media, and electronic forms. They refine their thinking while interacting, negotiating, and collaborating with others in order to build their understandings. With teacher assistance, students learn to research, and select those resources and approaches that most effectively and efficiently meet their learning needs.

Technological literacy is not a subject area like mathematics, science, or language arts. Rather, it concerns the acquisition and development of skills, attitudes, and knowledge—such as those identified above—that together enhance the learning and teaching of the full curriculum. At this level students work to become literate, technologically skilled, informed, and caring digital citizens.

Senior High (Grades 10–12)

At the senior high school level, students continue to integrate information and communication technology within all subject areas. They use a wide variety of technology; demonstrate a clear understanding of technological applications; and consistently apply appropriate technology to create, to innovate, and to problem solve. Students will act responsibly when faced with ethical issues that arise from their use of ICT. They evaluate, select, and utilize technology and learn to represent curriculum concepts under study. Students use specialized software, including computer-based simulations, and complex measuring, calculating, sampling and recording devices. Students identify, evaluate, and compare the quality, congruencies, discrepancies, omissions, biases, and perspectives of information in print, media, and electronic resources. They identify the strengths and limitations of different approaches to research, and select those approaches that efficiently and effectively meet their learning needs.

Audio Recording and Production 12
(academic, 1 credit or ½ credit)
Course Code: 327073

Note: This course is a pilot course. The full-credit course 11 is eligible for one credit toward the technology **or** arts education graduation requirement, but not both; however, it does not qualify as the compulsory arts education graduation credit.

Audio Recording and Production 12 may be offered as a full credit on completion of all four modules. Students completing two modules may receive a half credit.

Developments in technology generate ever more interest and employment opportunities in audio production.

Students of Audio Recording and Production 12 will learn the language of electronics as it relates to audio production and will acquire understanding of the acoustic characteristics of a variety of sound sources. They will develop appreciation for the history of sound recording and its importance to culture. They will learn techniques for and the safe use of a variety of components for recording and manipulating sound. Students will design, plan, and complete audio projects that demonstrate the production skills they have developed.

Audio Recording and Production 12 modules include: Principles of Sound; Machines, Mics, and Connections; Audio Production and Manipulation; and Collaborative Project and Personal Portfolio.

Business Technology 11 and Business Technology 12

Note: See Business Education. Business Technology 11 and Business Technology 12 are each eligible for one credit toward the technology graduation requirement.

Computer Programming 12
(academic, 1 credit or ½ credit)

Course Codes: 100073 (12, 1 credit)
100075 (12A, ½ credit)
100076 (12B, ½ credit)

Note: The full-credit course is eligible toward the technology graduation requirement.

Students who complete all four modules may receive a full credit, while students completing two modules may receive a half credit.

Computer Programming 12 will facilitate the further development of students' analysis, design, and problem-solving skills as they learn programming language and use it to create computer software. Object-oriented analysis and design techniques are introduced as high-level tools that facilitate problem understanding and algorithm development independent of the target implementation language. Students will apply their developing programming skill to the solution of real-world problems and explore career pathways their developing skills make possible.

Computer Programming 12 modules include: Problem Solving in Computer Programming; Fundamentals of Programming; Applied Problem Solving; Project Development.

Film and Video Production 12
(academic, 1 credit or ½ credit)

Course Code: 327023 (12, 1 credit)
327024 (12A, ½ credit)
327025 (12B, ½ credit)

Note: This course is an elective course and does not satisfy the compulsory arts education graduation requirement. Film and Video Production 12 is eligible for one credit toward the technology graduation requirement.

Film and Video Production 12 involves students in the production of a film or video. Students work independently and as part of a production team to explore roles in the film industry, develop skills required in production roles, develop a critical awareness of historical and cultural aspects of film, and work through the process of producing a film or video from script development to final edit. Modules for this course include Fundamentals, Production Team Skills, Film Industry Disciplines and Careers, and Film Development and Production.

Food Preparation and Service 10

Note: See Family Studies. Food Preparation and Service 10 is eligible for credit toward the technology graduation requirement.

Food Technology 10

Note: See Family Studies. Food Technology 10 is eligible for credit toward the technology graduation requirement.

Housing and Design 12

Note: See Family Studies. Housing and Design 12 is eligible for credit toward the technology graduation requirement.

Multimedia 12
(academic, 1 credit or ½ credit)

Course Codes: 327057 (12, 1 credit)
327058 (12A, ½ credit)
327059 (12B, ½ credit)

Note: The full-credit course is eligible to meet the technology graduation requirement, but not the compulsory arts education graduation requirement.

Students completing all modules may receive a full credit; those completing two modules may receive a half credit.

Multimedia 12 responds to the growing importance of multimedia products in today's society, and the interest students have in creating, manipulating, and reflecting critically on those products.

Students will further develop their understanding of communication technology, demonstrating an understanding of the aesthetic/artistic implications of multimedia products and their awareness of the ethical, social, and legal implications of multimedia products. They will apply the elements and principles of art and design to create multimedia products that effectively communicate ideas and concepts.

Multimedia 12 includes four modules: Creating and Manipulating Images; Creating and Manipulating Sequenced Images; Sound; and Collaborative Project and Personal Portfolio.

Textile Production 10

Note: See Family Studies. Textile Production 10 is eligible for credit toward the technology graduation requirement.

Textile Technology 12

Note: See Family Studies. Textile Technology 12 is eligible for credit toward the technology graduation requirement.

Curriculum Documents

Audio Recording and Production 12 (Draft, 2009)
Computer Programming 12 (Draft, 2005)
Foundation for Atlantic Canada Technology Education Curriculum (2001)
Multimedia 12 (Implementation Draft, 2008)
The Integration of Information and Communication Technologies within the Curriculum (2005) (available only on the Internet and from Learning Resources and Technology)

Publications and Resources

Publications and Resources

Note: See also the Department of Education and Early Childhood Development website at www.ednet.ns.ca for downloadable files and an online ordering system for obtaining hard copies of these documents, as well as other departmental publications.

Authorized Learning Resources

Authorized Learning Resources is an online searchable database of resources authorized for use in Nova Scotia classrooms. All schools in Nova Scotia have access to purchase resources through this online system.

Additional information regarding the credit allocation system, 5% credit allocation, cash purchases, pricing, and up-to-date catalogues in PDF format can be found on the website at https://w3apps.EDnet.ns.ca/nssbb.

Curriculum Documents

Cross-curricular

Engaging with Text across the Curriculum: Grades 3–6 (2003)
Foundation for Grade Primary Program (1999)
Learning Outcomes Framework, Grades 10–12 (www.ednet.ns.ca/psp-lof.shtml)
Learning Outcomes Framework, Grades 7–9 (www.ednet.ns.ca/psp-lof.shtml)
Learning Outcomes Framework, Grades Primary–6 (www.ednet.ns.ca/psp-lof.shtml)
The Atlantic Canada Framework for Essential Graduation Learnings in Schools (c1994)
Time to Learn Strategy: Instructional Time and Semestering (2002)
(www.ednet.ns.ca/pdfdocs/time_to_learn/semestering.pdf)

Arts Education

Advanced Music 11 and *Advanced Music 12* (Draft, 2008)
Advanced Visual Arts 11 and *Advanced Visual Arts 12* (Implementation Draft, 2008)
ArtsLinks, Grades Primary–6 (forthcoming)
Band Instruments 7 (Implementation Draft, 2009)
Band Instruments 8 (Implementation Draft, 2010)
Band Instruments 9 (Implementation Draft, 2011)
Cultural Industries 11 (2000)
Dance 11 (1999)
Design 11 (2000)
Drama 10 and Drama 11 (1999)
Drama 12: Theatre Arts (Implementation Draft, 2008)
Explore Music 7 (Implementation Draft, 2009)
Explore Music 8 (Implementation Draft, 2010)
Explore Music 9 (Implementation Draft, 2011)
Film and Video Production 12 (2003)
Foundation for the Atlantic Canada Arts Education Curriculum (2001)
Multimedia 12 (Draft, 2008)

Music 10 and Music 11 (Draft, 2008)
Music 12 (Implementation Draft, 2008)
Music Primary–6 (2002)
Visual Arts 10 and Visual Arts 11 (2011)
Visual Arts 12 (Implementation Draft, 2008)
Visual Arts 7 (Implementation Draft, 2009)
Visual Arts 8 (Implementation Draft, 2010)
Visual Arts 9 (Implementation Draft, 2011)
Visual Arts Primary–6 (2000)

Business Education

Accounting 11 (Draft, 2010)
Accounting 12 (Draft, 2011)
Business Management 12 (2003)
Business Technology 11 (Draft, 2009)
Business Technology 12 (Draft, 2011)

Core French

Français de base à l'élémentaire, 4e à la 6e année (1998)
Français de base au secondaire 1er cycle, 7e à la 9e année (1999)
Français de base au secondaire 2e cycle, 10e, 11e, 12e année (2003)

English Language Arts

Active Readers Assessment Resource Young Adolescents: A Teaching Resource, Grades 7–9 (2005)
Active Young Readers, Grades 4–6 Assessment Resource: A Teaching Resource (2003)
Advanced English 11 (Implementation Draft, 2008)
Advanced English 12 (Implementation Draft, 2008)
Atlantic Canada Canadian Literature Curriculum: Canadian Literature, Grade 12 (1998)
Atlantic Canada English Language Arts Curriculum: English Language Arts, Grades 4–6 (1997)
Atlantic Canada English Language Arts Curriculum: English Language Arts, Grades 10–12 (1997)
English Language Arts Primary–3 (forthcoming)
English 10 Plus: A Teaching Resource (Implementation Draft, March 2006)
English 12: African Heritage (Implementation Draft, April 2007)
Foundation for the Atlantic Canada English Language Arts Curriculum (1996)
Literacy Success 10 (Draft, 2006)
Literacy Success 11 (Draft, 2007)
Literacy Success 12 (October 2008)
Spelling Primary–9: A Teaching Resource (2008)
Succeeding in Reading: An Early Literacy Support Framework (2011)
Teaching in Action, Grades 10–12: A Teaching Resource (2011)
Teaching in Action, Grades 4–6: A Teaching Resource (2007)
Teaching in Action, Grades 7–9: A Teaching Resource (2007)
Teaching in Action, Grades Primary–3: A Teaching Resource (2006)
Technical Reading and Writing 11 (Draft 2000)

Entrepreneurship

Entrepreneurship 12 (Implementation Draft, May 2003)

Family Studies

Canadian Families 12 (Draft, 2012)
Child Studies 9 (Draft, 2012)
Food Preparation and Service 10 (Draft, 2012)
Food Technology 10 (Draft, 2012)
Food and Nutrition 8 (Draft, 2012)
Food for Healthy Living 10 (Draft, 2012)
Food Studies and Hospitality 12 (Draft 2012)
Housing and Design 12 (Draft, 2012)
Textile Arts and Design 7 (Draft, 2012)
Textile Production 10 (Draft, 2012)
Textile Technology 12 (Draft, 2012)

French Immersion

Document d'encadrement du programme de français en immersion au Canada atlantique (FÉPA)
French Immersion English Language Arts Grade 3: Curriculum Supplement (2003)
Programme d'études du cours de français - 10e à la 12e année - immersion (2003)
Programme d'études du cours de français- 7e à la 9e année - immersion précoce (2004)
Programme d'études du cours de français -7e à la 9e année - immersion tardive (2002)
Programme d'études du cours de français immersion - maternelle à la 3e année (2006)
Programme d'études du cours de français immersion 4e à la 6e année (2008)

Gaelic

Celebrating Our Celtic Culture: A Teaching Resource (Draft, 2008)
Gaelic Curriculum for the Elementary and Junior High Schools of Nova Scotia (Draft, April 2008)
Gàidhlig 10 / Gaelic 10 (2008)
Gàidhlig 10 / Gaelic 10: A Teaching Resource (2008)
Gàidhlig 11 / Gaelic 11 (2008)
Gàidhlig 12 / Gaelic 12 (2008)

Health Education

A Question of Influence Curriculum Supplement: A Teacher's Drug Education Resource for Healthy Living Grades 7–9 (2008)
Foundation for Active, Healthy Living: Physical and Health Education Curriculum (1998)
Health Education, Grades 4–6 (2003)
Healthy Living 9 (*forthcoming*)
Healthy Mind, Healthy Body: Grades 4–6, Did You Know, Daddy, I Feel Sad Sometimes (2008)
Healthy Mind, Healthy Body: Grades 7–9, I'm in Control (2008)
Healthy Mind, Healthy Body: Grades Primary–3, My Brain and My Health (2011)
Mental Health, Healthy Living 9: A Curriculum Resource (Draft, 2012)
Nova Scotia Student LifeWork Portfolio: *A Teaching Resource* (2005)
Workplace Health and Safety, Healthy Living 9: A Curriculum Resource (Draft, 2010)

International Baccalaureate

Teachers can find useful supplemental documents online through the IBO website (IBO.org). The website has over 3000 documents for teachers to help support the curriculum.

Languages

Languages Template (Draft, 2000)

Mathematics

Atlantic Canada Mathematics Curriculum: Grade 7 (1999; revised and reprinted 2010)
Atlantic Canada Mathematics Curriculum: Grade 8 (1999; revised and reprinted 2011)
Atlantic Canada Mathematics Curriculum: Grade 9 (2000; revised and reprinted 2012)
Atlantic Canada Mathematics Curriculum: Grades 4–6 (1999)
Atlantic Canada Mathematics Curriculum: Mathematics 11/Advanced Mathematics 11 (Implementation Draft, 2000)
Atlantic Canada Mathematics Curriculum: Mathematics 12/Advanced Mathematics 12 (2004)
Atlantic Canada Mathematics Curriculum: Mathematics Foundations 11 (Implementation Draft, 2000)
Atlantic Canada Mathematics Curriculum: Mathematics Foundations 12 (Implementation Draft, 2001)
Atlantic Canada Mathematics Curriculum: Pre-Calculus Mathematics 12 (Implementation Draft, 2002)
Calculus 12 (Implementation Draft, 2004)
Foundation for the Atlantic Canada Mathematics Curriculum (1996)
Mathematics 1 (Implementation Draft, May 2013)
Mathematics 10 (Implementation Draft, July 2013)
Mathematics 2 (Implementation Draft, May 2013)
Mathematics 3 (Implementation Draft, May 2013)
Mathematics 4: A Support Resource (Draft, 2007)
Mathematics 4: A Teaching Resource (2008)
Mathematics 5: A Teaching Resource (2006)
Mathematics 6: A Teaching Resource (2010)
Mathematics 7: A Teaching Resource (2005; revised and reprinted 2010)
Mathematics 8: A Teaching Resource (2005; revised and reprinted 2011)
Mathematics at Work 10 (Implementation Draft, August 2013)
Mathematics Primary (Implementation Draft, May 2013)
Mathematics: A Teaching Resource, Grade 9 (2005)

Mi'kmaw Language

Foundation for Mi'kmaw/Miigmao Language Curriculum (2003)
Mi'kmaw Language 7 (Implementation Draft, 2006)
Mi'kmaw Language 8 (forthcoming)

Personal Development and Career Education

Career Development 10 (forthcoming)
Career Development 11 (forthcoming)
Community-Based Learning 10 (forthcoming)
Community-Based Learning: A Resource for Schools (2013)
Health and Human Services 12 (forthcoming)
Learning Strategies 10, 11, 12: A Curriculum Resource (Draft, June 2013)
Life/Work Transitions 10 (2000)
Nova Scotia Student LifeWork Portfolio: A Teaching Resource (2005)
Options and Opportunities: A Resource for Schools (2013)

Co-operative Education: A Resource for Schools (2013)
The Business of Mentoring (2013)
Tourism 11 (2000)
Tourism 12 (Draft, 2007)
Workplace Health and Safety 11 (2012)

Physical Education

Fitness Leadership 11 (forthcoming)
Foundation for Active, Healthy Living: Physical and Health Education Curriculum (1998)
Physical Education 10 (Implementation Draft, 2008)
Physical Education 11 (Implementation Draft, 2011)
Physical Education Leadership 12 (forthcoming)
Physical Education Safety Guidelines, Grades Primary–12 (2002)
Physically Active Living 11 (Implementation Draft, 2011)
Yoga 11 (Implementation Draft, 2010)

Science

A *Closer Look: Energy and Me, Science 2 and Science 3, A Curriculum Resource* (2009)
A Closer Look: Let's Explore Plants and Soils, Science 3, A Curriculum Resource (2010)
A Closer Look: Let's Explore Trees, Science Primary–6: A Curriculum Resource (forthcoming)
A Closer Look: Using Energy Meters, Science 6 and Science 9, A Curriculum Supplement (2008)
A Closer Look: Using Microscopes, Science Grades 3–6 (2003)
Advanced Biology 11 (Draft, 2012)
Advanced Chemistry 11 and Advanced Chemistry 12 (Draft, 2011)
Advanced Physics 11 and Advanced Physics 12 (forthcoming)
Atlantic Canada Science Curriculum: Biology 11 (Implementation Draft, 2000)
Atlantic Canada Science Curriculum: Biology 12 (Implementation Draft, 2001)
Atlantic Canada Science Curriculum: Chemistry 11 and Chemistry 12 (forthcoming)
Atlantic Canada Science Curriculum: Physics 11 and Physics 12 (2002)
Atlantic Canada Science Curriculum: Science 10 (2012)
Atlantic Canada Science Curriculum: Science, Grade 1 (2005)
Atlantic Canada Science Curriculum: Science, Grade 2 (2005)
Atlantic Canada Science Curriculum: Science, Grade 3 (2005)
Atlantic Canada Science Curriculum: Science, Grade 4 (2006)
Atlantic Canada Science Curriculum: Science, Grade 5 (2008)
Atlantic Canada Science Curriculum: Science, Grade 6 (2008)
Atlantic Canada Science Curriculum: Science, Grade Primary (2004)
Chemistry 11 and Chemistry 12: A Teaching Resource (forthcoming)
Chemistry Data Booklet (2013)
Combining Science 5 and Health 5, Curriculum Supplement (2011)
Food Science 12 (Implementation Draft, 2003)
Foundation for the Atlantic Canada Science Curriculum (1998)
Geology 12 (Implementation Draft, 2002)
Nova Scotia Science Olympics, Science 4 and Science 5: A Curriculum Resource (2009)
Oceans 11 (forthcoming)
Oceans 11: A Teaching Resource, Volume 1 (forthcoming)
Oceans 11: A Teaching Resource, Volume 1 (forthcoming)
Physics 11 and Physics 12: A Teaching Resource (2005)
Science 10: A Teaching Resource (2012)

Science 4 / Science 5: A Handbook for Teaching Combined Classes (2011)
Science Primary / Science 1: A Handbook for Teaching Combined Classes (forthcoming)
Science Safety Guidelines, Grades Primary–12 (2005)

Skilled Trades

Construction Trades 11 (Draft, 2010)
Skilled Trades 10 (Draft, 2010)
Skilled Trades 12 Co-op (Draft, 2011)
Transportation Trades 11 (Draft, 2011)

Social Studies

African Canadian Studies 11 (Implementation Draft, May 2009)
Atlantic Canada Social Studies Curriculum: Atlantic Canada in the Global Community, Grade 9 (2006)
Atlantic Canada Social Studies Curriculum: Community Economic Development (2000)
Atlantic Canada Social Studies Curriculum: Grades Primary–2 (Implementation Draft, October 2005)
Atlantic Canada Social Studies Curriculum: Social Studies 3 (forthcoming)
Atlantic Canada Social Studies Curriculum: Social Studies 4 (forthcoming)
Atlantic Canada Social Studies Curriculum: Social Studies 5 (forthcoming)
Atlantic Canada Social Studies Curriculum: Social Studies 6: World Cultures (Implementation Draft, April 2010)
Atlantic Canada Social Studies Curriculum: Social Studies 7 (Implementation Draft, September 2005)
Atlantic Canada Social Studies Curriculum: Social Studies 8 (Implementation Draft, August 2006)
Canadian History 11 (Implementation Draft, 2002)
Foundation for the Atlantic Canada Social Studies Curriculum (1999)
Gaelic Studies 11 (Implementation Draft, 2002)
Geography 10 (No. 143, 1996)
Geomatics 12 (Draft, April 2007)
Global Geography 12 (reprinted, 2003)
Global History 12 (reprinted, 2003)
Social Studies: Canadian Economy 2203 (NL, September 2004)
Sociology 12 (Implementation Draft, April 2010)

Student Services

Assistive Technology: Supporting Student Success (2006)
Bias Evaluation Instrument (April 2001)
Comprehensive Guidance and Counselling (2007; revised and reprinted 2010)
Gifted Education and Talent Development (2010)
Guidelines for English as a Second Language (ESL): Programming and Services (2003)
Handbook for the Transportation of Students with Special Needs (1999)
Increasing Learning Success (2008)
Provincial School Code of Conduct Guidelines (2008)
Racial Equity Policy (March 2002)
Respect for Diversity: A Planning Resource (2007)
School Board and Ministerial Appeal Guide (2009)
School Psychology Guidelines (2009)
Special Education Policy (2008)
Student Records Policy (August 2006)
Supporting Student Success: Resource Programming and Services (2006)
Teacher Assistant Guidelines (2009)

The Program Planning Process: A Guide for Parents (2006)
Transcript Guide (Revised January 2000)
Transition Planning for Students with Special Needs: The Early Years through to Adult Life (2005)

Technology Education

Communication Technology 11 and Communication Technology 12 (Draft, 2010)
Design 11 (2000)
Electrotechnologies 11 (2000)
Energy, Power, and Transportation 11 (No. 146, 1996)
Exploring Technology 10 (Draft, 2008)
Foundation for Atlantic Canada Technology Education Curriculum (2001)
Production Technology 11 and Production Technology 12 (No. 148, 1996)
Technology Education 9 (Draft, April 2012)

Technology Integration and Information and Communication Technology Courses

Audio Recording and Production 12 (Draft, 2009)
Computer Programming 12 (Draft, 2005)
Foundation for Atlantic Canada Technology Education Curriculum (2001)
Multimedia 12 (Implementation Draft, 2008)
The Integration of Information and Communication Technologies within the Curriculum (2005) (available only on the Internet and from Learning Resources and Technology)

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Atlantic Provinces Special Education Authority Act (2011)

Ministerial Education Act Regulations (www.gov.ns.ca/just/regulations/regs/edmin.htm)

Education Act (1996) (http://nslegislature.ca/legc/statutes/eductn.htm)

Freedom of Information and Protection of Privacy (FOIPOP) Act
(http://nslegislature.ca/legc/statutes/freedom.htm)

Youth Criminal Justice Act (YCJA) (http://laws-lois.justice.gc.ca/eng/acts/Y-1.5/page-1.html)
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