NOVA SCOTIA

Entrepreneurship 12

Implementation Draft
May 2003

CURRICULUM

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Contents

Introduction

Background

In 1986, the federal government proclaimed a National Policy on Entrepreneurship in which a pledge was made "to mobilize entrepreneurship for the economic, social, and cultural development of all parts of the country, in partnership with the private sector, provincial and territorial governments, and the academic community." In Atlantic Canada, the Atlantic Canada Opportunities Agency (ACOA) and later the Centre for Entrepreneurship Education and Development (CEED) were created to implement this policy. The result has been a comprehensive series of programs in entrepreneurship in both the education system and the community at large.

The Department of Education recognizes entrepreneurship education as an important component of a balanced school program of studies and as a basis for sustainable economic activity. The public school program, therefore, is designed to provide learning experiences, from grades primary–12, that will help students to develop an entrepreneurial spirit and initiative—building their awareness of opportunities to participate in and contribute to the economy and helping them to become increasingly flexible and creative in responding to those opportunities.

Entrepreneurship education is infused into the curriculum of many subject areas and emphasizes an experiential, learning-by-doing approach. The focus throughout is on developing personal qualities, characteristics, skills, and attitudes associated with entrepreneurship.

At the elementary level, students are invited to explore and experiment with entrepreneurship in their classrooms, schools, and communities. At the junior high level, more emphasis is placed on entrepreneurial thinking, transferable skills, and specific knowledge. At the senior high level, students have opportunities to explore entrepreneurship in a variety of courses. In Life/Work Transitions 10, for example, students can experience venturing and small business through selecting a small student project module. Cultural Industries 11 engages students in exploring the arts and cultural community, identifying entrpreneurial opportunities in this sector, and applying their knowledge, skills, talents, and interests in entrepreneurial ways. The most comprehensive entrepreneurship experience is available to students in Entrepreneurship 12.

This guide provides educators with a framework for delivering the Entrepreneurship 12 course. This course offers students the opportunity to

- understand entrepreneurship
- develop entrepreneurial qualities, attitudes, and characteristics; act entrepreneurially; and participate in entrepreneurial activity
- consider entrepreneurship as a viable career option
- explore the relationship of entrepreneurship and the economy

Rationale for Entrepreneurship Education

Atlantic Canada's economy is becoming more diversified and requires greater emphasis on enterprise, global competitiveness, and sustainable development. One of the challenges of the senior public school program is to offer learning opportunities that will enhance students' ability to participate in the economy.

Over the last 10 years, more than 75 percent of the new jobs in Canada were created in businesses with fewer than 50 employees. There is a strong likelihood that the contemporary student will be working either for himself or herself or for an entrepreneur. Consequently, entrepreneurship education will be useful to students whether they want to work for themselves or for an entrepreneurial operation. It will prepare students to meet the challenges of ensuring their own economic viability.

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.

- Business ownership is essential to a definition of entrepreneurship and to the entrepreneurial experience.
- Initiating, maintaining, and expanding a business are all components of entrepreneurship.
- Entrepreneurship is not limited to "for profit" organizations. Not-for-profit ventures can also be entrepreneurial.

The essence of entrepreneurship education is learning through taking action—learning by doing. Entrepreneurship education enables students to develop the personal qualities and attitudes required to run a successful business.

Entrepreneurship education

- allows students to move along a continuum from aspiration to business start-up to expansion
- focusses on adaptive skills that allow entrepreneurs to adjust successfully to new situations
- provides 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

Entrepreneurship education provides students with the following:

- an individualized program
- an opportunity to take control of and responsibility for their own learning
- an opportunity to develop self-reliance and be prepared for a global economy
- an opportunity to develop the personal attitudes, values, and characteristics of successful entrepreneurs
- exposure to the benefits of the entrepreneurial option

The Nature of Entrepreneurship 12

Entrepreneurship 12 is based on a learning outcomes framework that identifies the knowledge, skills, and attitudes that students are expected to demonstrate as a result of their learning experiences. The course focusses 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 planning.

Students are most likely to develop their entrepreneurial skills and acquire knowledge of entrepreneurship when they have opportunities to use those skills and knowledge purposefully to

- think, act, and learn
- manage and evaluate information
- identify and actualize opportunities
- explore, respond to, and value the place of entrepreneurship in society

These purposes are best accomplished through meaningful learning experiences that balance and integrate the theoretical and practical aspects of entrepreneurship.

Entrepreneurship is simultaneously a vehicle for learning, a subject area, and a career option. As a vehicle for learning, it utilizes a pedagogical approach that is steeped in an experiential and contextual process. As a subject area, it requires an understanding of some specific knowledge such as basic business skills, but it also includes the application of some transferable skills, such as problem solving and communication, and an awareness of the personal qualities, attitudes, and values that are associated with successful entrepreneurs. For students considering entrepreneurship as a career option, entrepreneurship education offers immediate benefits.

Entrepreneurship 12 is designed to offer students maximum decision making. The onus is on the student to decide on the focus of the learning and on the teacher to provide the environment and support to facilitate this process. A large portion of the course is directed, implemented, and evaluated by the student. The course provides students with the opportunity to take control of their own learning while they develop financial and economic responsibility. It incorporates several contexts for learning concurrently, including peer group activities, mentors, planning, self-evaluation, and learning specific skills through experimental activity.

Features of Entrepreneurship 12

Entrepreneurship 12 is characterized by the following features:

- a strong applied focus with an emphasis on integrating, applying, and reinforcing the knowledge, skills, and attitudes developed in other courses
- a strong connection to the essential graduation learnings
- a strong focus on refining career-planning skills to explore a range of pathways from school
- a strong connection to labour market opportunities with a focus on enhancing students' entrepreneurship and employability skills
- a strong connection to the community and workplace with a focus on using real community and workplace problems and situations as practical contexts for the application of knowledge and skills and for further learning
- a strong focus on hands-on learning experiences, including experiences with a range of technologies

Course Design and Components

Entrepreneurship education is fundamental to advancing the vision of strong enterpreneurial climate. The curriculum guide and support materials for Entrepreneurship 12 describe a "cutting-edge" course that introduces entrepreneurship as a viable career option. Students recognize that they can create their own opportunities and enjoy more control over their destinies.

Entrepreneurship 12 focusses 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 actifities outside the classroom.

The Four-Column Spread

The specific curriculum outcomes section of this guide has been organized into four columns for several reasons:

- The organization illustrates how learning experiences flow from the outcomes.
- The relationship between outcomes and assessment strategies is immediately apparent.
- Related and interrelated outcomes can be grouped together.
- The range of strategies for teaching and learning associated with an specific outcome or outcomes can be scanned easily.
- The organization provides multiple ways of reading the document or of searching for specific information.

The Two-Page, Four-Column Spread

Understanding Entrepreneurship
Students will be expected to demonstrate a clear understanding of entrepreneurship and recognize their own and others' entrepreneurial characteristics and potential.

Outcomes	Suggestions for Learning and Teaching
Students will be expected to	Teachers can
• articulate a broad notion of entrepreneurship • communicate and demonstrate some of the main characteristics of a successful entrepreneur • assess their own entrepreneurial characteristics • recognize, value, and draw upon, as appropriate, the entrepreneurial talents and skills of others • understand and develop characteristics that they identify as being necessary to their success • identify specific indicators of success in their own and others' ventures	• design and administer a "pre-course self-assessment," and keep completed forms on file for the year to be compared with a "post-course" assessment • select one or two activities from "Warm-ups for Making the Connection" in *Entrepreneurship in the Cultural Industries: A Teaching Resource*, such as "Classroom Treasure Hunt" and "Personal Promotion Material," which can be used to help students to reflect on their own passions and interests • provide video and print profiles of entrepreneurs • create opportunities for students to connect with local entrepreneurs • encourage students to conduct on-site or in-class interviews of local entrepreneurs • provide students with copies of "Employability Skills Profile" developed by the Conference Board of Canada, (see Appendix L) and have students assess their own skills by recording evidence of proficiency • create opportunities for students to assess their own entrepreneurial characteristics
	Students can

	• design an interview format and interview a local entrepreneur
	• write a journal entry describing lessons learned during the interview; report findings to the class
	• design a "day in the life" of an entrepreneur
	• discuss the pros and cons of entrepreneurship as a career choice
	• complete a self-assessment portfolio
	• design a profile of an entrepreneur; examples of questions to be considered might include the following:
	  – What do entrepreneurs think about?
	  – How do entrepreneurs organize their ideas?
	  – What do entrepreneurs actually do?
	  – What tools do entrepreneurs use?
	  – What do entrepreneurs care about?
	  – What problems do entrepreneurs solve?
	  – What do entrepreneurs contribute to our lives?
	  – What do entrepreneurs contribute to the world?
	  – What is the difference between entrepreneurship and management?
	• organize a panel or forum discussion on the above questions

Understanding Entrepreneurship
Students will be expected to demonstrate a clear understanding of entrepreneurship and recognize their own and others' entrepreneurial characteristics and potential.

Suggestions for Assessment	Resources/Notes
Exploring entrepreneurship as a career choice is a highly individual process incorporating a person's thoughts, aspirations, dreams, passions, interests, talents, knowledge, personal qualities, characteristics, and attitudes. Create opportunities for your students to reflect upon their own personal dreams and aspirations. A journal is essential for students to analyse their personal dreams and aspirations, keep relevant notes and contacts, explore their own interests, and develop action plans for their future (see Appendix J: Journals and Logbooks). The following suggestions are offered as examples of the kinds of activities that can be used for assessment purposes. Students can use their journals to record and reflect on these activities. After students have identified their areas of interest, transferable skills, and work preferences and have related these to career and lifestyle choices, look for evidence that they are able to • be open and honest in their self-assessments • offer specific examples to support their assessments of their skills • recognize relevant strengths and areas for further development • identify how various skills might be developed and improved • explain the interrelationship of some of the factors that influence their choices Have each student identify three personal research questions related to entrepreneurship as a career choice. For each question, ask students to identify, access, and evaluate relevant sources and to record, organize, and summarize information. Look for evidence that they are able to • compose clear and focussed questions that address important aspects of their interests and plans • identify a wide variety of potential sources • make decisions about the reliability and credibility of various sources • show initiative, resourcefulness, and persistence in accessing the information they need • record and summarize the information clearly and accurately • answer their research questions with complete and detailed information	Video profiles from *The Leading Edge*, Teacher's Resource Video and print profiles are also included in *Entrepreneurship in the Cultural Industries: A Teaching Resource* (1998). *LifeChoices: Careers*, articles under the heading "Enterprise and Innovation" Self-assessment: *LifeChoices: Careers*, "Be Your Own Boss," "Success in the Workplace," and "Minding Your Own Business"; *Canada Prospects 98–99*, "Are You Wondering 'Is Self-Employment Right for Me?'" Entrepreneurial case studies can be found in *LifeChoices: Careers*; the CBC TV show *Venture*; the Business Development Bank of Canada publication, *Profit$*; and/or by interviewing the owner of a small business in the community. The brochure *Minding Your Own Business* is available from Human Resources Development Canada. Some banks offer free software to help entrepreneurs develop business plans.

Column One: Outcomes

This column describes what students are expected to know, be able to do, and value by the end of this course. While the outcomes may be clustered, they are not necessarily sequential.

Column Two: Suggestions for Learning and Teaching

This column offers a range of strategies from which teachers and students may choose. Suggested learning experiences can be used in various combinations to help students achieve an outcome or outcomes. It is not necessary to use all of these suggestions, nor is it necessary for all students to engage in the same learning experience.

Column Three: Suggestions for Assessment

These suggestions may be used to assess students' success in achieving the outcomes; they are linked to the Outcomes column and the Suggestions for Learning and Teaching column. The suggestions are only samples; for more information, read the section Assessing and Evaluating Student Learning.

Column Four: Resources/ Notes

This column contains a variety of information related to the items in the other columns, including suggested resources, elaborations on strategies, successes, cautions, and definitions.

Outcomes

Essential Graduation Learnings and Entrepreneurship 12

The Atlantic provinces worked together to identify the abilities and areas of knowledge that they considered essential for students graduating from high school. These are referred to as the Essential Graduation Learnings. Details may be found in the document *Public School Programs.*

Some examples of learning outcomes in Entrepreneurship 12 that help students move toward attainment of the essential graduation learnings are given below.

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. By the end of Entrepreneurship 12, students will be expected to

- recognize value and draw upon, as appropriate, the entrepreneurial talents and skills of others

Citizenship

Graduates will be able to assess social, cultural, economic, and environmental interdependence in a local and global context. By the end of Entrepreneurship 12, students will be expected to

- recognize the relationship among local, national, and international economies

Communication

Graduates will be able to use the listening, viewing, speaking, reading, and writing modes of language(s) as well as mathematical and scientific concepts and symbols to think, learn, and communicate effectively. By the end of Entrepreneurship 12, students will be expected to

- prepare and present a plan to implement a business or venture

Personal Development

Graduates will be able to continue to learn and to pursue an active, healthy lifestyle. By the end of Entrepreneurship 12, students will be expected to

- demonstrate a clear understanding of entrepreneurship and recognize their own and others' entrepreneurial characteristics and potential

Problem Solving

Graduates will be able to use the strategies and processes needed to solve a wide variety of problems, including those requiring language, mathematical, and scientific concepts. By the end of Entrepreneurship 12, students will be expected to

- gather information, evaluate entrepreneurial ideas for a business venture, and make informed decisions

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. By the end of Entrepreneurship 12, students will be expected to

- demonstrate an understanding of the role of technology and its application to entrepreneurship

Entrepreneurship 12 Outcomes

Students will be expected to

- demonstrate a clear understanding of entrepreneurship and recognize their own and others' entrepreneurial characteristics and potential
- generate ideas and identify entrepreneurial opportunities
- develop and implement strategies to set and attain entrepreneurial goals
- demonstrate a basic understanding of the role of entrepreneurship in local, national, and international economies
- plan, implement, and evaluate a business or venture
- demonstrate an understanding of the role of technology and its application to entrepreneurship
- demonstrate the personal qualities and characteristics of successful entrepreneurs

Specific Curriculum Outcomes

Understanding Entrepreneurship

Students will be expected to demonstrate a clear understanding of entrepreneurship and recognize their own and others' entrepreneurial characteristics and potential.

Students will be expected to

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- communicate and demonstrate some of the main characteristics of a successful entrepreneur
- assess their own entrepreneurial characteristics
- recognize, value, and draw upon, as appropriate, the entrepreneurial talents and skills of others
- understand and develop characteristics that they identify as being necessary to their success
- identify specific indicators of success in their own and others' ventures

Opportunity Knocks

Students will be expected to generate ideas and identify entrepreneurial opportunities.

Students will be expected to

- brainstorm ideas for business and venture opportunities
- gather information, evaluate entrepreneurial ideas for a business or venture, and make informed decisions
- use a variety of analytical tools to assess the financial viability of an entrepreneurial activity
- select, evaluate, and defend appropriate research methods for assessing the feasibility of a business or venture
- identify legal and ethical considerations that impact on a business or venture

Paving the Way

Students will be expected to develop and implement strategies to set and attain entrepreneurial goals.

Students will be expected to

- demonstrate effective planning
- demonstrate the ability to develop strategies to deal with challenges
- make and implement informed decisions
- demonstrate the ability to reflect on and learn from experience
- demonstrate a clear understanding of the values of a business plan

Making Connections

Students will be expected to demonstrate a basic understanding of the role of entrepreneurship in local, national, and international economies.

Students will be expected to

- analyse connections among political, economic, environmental, and social issues
- explore the impact of entrepreneurship on local, national, and international economies
- reflect critically on ethical issues related to entrepreneurship activities
- recognize the relationship among local, national, and international markets
- identify the potential for local businesses or ventures in the global market
- reflect critically on ethical issues related to entrepreneurship activities
- identify trends that influence the marketplace

Diving In

Students will be expected to plan, implement, and evaluate a business or venture.

Students will be expected to

- prepare and present a plan to implement a business or venture
- identify the criteria for assessing and evaluating the success of a business or venture
- demonstrate a creative, resourceful approach in seeking the resources to start a business or venture
- identify alternative funding sources for a business or venture
- implement a business or venture
- track the finances involved in their business venture
- apply basic business skills such as bookkeeping, accounting management, finance, and human resources
- demonstrate a commitment to ethical behaviour when developing and operating a business or venture
- explain the role of financial institutions in supporting businesses and ventures
- review and reflect upon the business or venture experience
- share with peers the results of the business or venture experience
- negotiate assessment and evaluation of their business

Technology and Entrepreneurship

Students will be expected to demonstrate an understanding of the role of technology and its application to entrepreneurship.

Students will be expected to

- demonstrate an understanding of the role of technology in business
- demonstrate the ability to use technology in an entrepreneurial activity
- identify opportunities in technology-related businesses
- use the Internet for business purposes

Putting It All Together

Students will be expected to demonstrate the personal qualitites and characteristics of successful entrepreneurs.

Students will be expected to

- apply teamwork skills to solve a business problem
- assess how personal attributes influence the success of a venture
- establish and use criteria to evaluate group processes and their own roles and contributions to the group process
- reflect critically on ethical issues related to entrepreneurship activities
- identify the roles of leadership and teamwork in entrepreneurial activities
- demonstrate collaboration and consultation with others in entrepreneurial activities

Specific Curriculum Outcomes

Understanding Entrepreneurship

Students will be expected to demonstrate a clear understanding of entrepreneurship and recognize their own and others' entrepreneurial characteristics and potential.

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Suggestions for Learning and Teaching

Teachers can

- design and administer a "pre-course self-assessment," and keep completed forms on file for the year to be compared with a "post-course" assessment
- select one or two activities from "Warm-ups for Making the Connection" in *Entrepreneurship in the Cultural Industries: A Teaching Resource*, such as "Classroom Treasure Hunt" and "Personal Promotion Material," which can be used to help students to reflect on their own passions and interests
- provide video and print profiles of entrepreneurs
- create opportunities for students to connect with local entrepreneurs
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- provide students with copies of "Employability Skills Profile" developed by the Conference Board of Canada, (see Appendix L) and have students assess their own skills by recording evidence of proficiency
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The following suggestions are offered as examples of the kinds of activities that can be used for assessment purposes. Students can use their journals to record and reflect on these activities.

After students have identified their areas of interest, transferable skills, and work preferences and have related these to career and lifestyle choices, look for evidence that they are able to

- be open and honest in their self-assessments
- offer specific examples to support their assessments of their skills
- recognize relevant strengths and areas for further development
- identify how various skills might be developed and improved
- explain the interrelationship of some of the factors that influence their choices

Have each student identify three personal research questions related to entrepreneurship as a career choice. For each question, ask students to identify, access, and evaluate relevant sources and to record, organize, and summarize information. Look for evidence that they are able to

- compose clear and focussed questions that address important aspects of their interests and plans
- identify a wide variety of potential sources
- make decisions about the reliability and credibility of various sources
- show initiative, resourcefulness, and persistence in accessing the information they need
- record and summarize the information clearly and accurately
- answer their research questions with complete and detailed information

Resources/Notes

Video profiles from *The Leading Edge*, Teacher's Resource

Video and print profiles are also included in E*ntrepreneurship in the Cultural Industries: A Teaching Resource* (1998).

LifeChoices: Careers; articles under the heading "Enterprise and Innovation"

Self-assessment: *LifeChoices: Careers*, "Be Your Own Boss," "Success in the Workplace," and "Minding Your Own Business"; *Canada Prospects 98–99*, "Are You Wondering 'Is Self-Employment Right for Me?'"

Entrepreneurial case studies can be found in *LifeChoices: Careers*; the CBC TV show *Venture*; the Business Development Bank of Canada publication, *Profit$*; and/or by interviewing the owner of a small business in the community.

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- select, evaluate, and defend appropriate research methods for assessing the feasibility of a business or venture
- identify legal and ethical considerations that impact on a business or venture

Suggestions for Learning and Teaching

Entrepreneurship is based on the ability to identify, evaluate, and act on business opportunities. Students can work in groups to identify, research, and choose business opportunities and to learn how to protect intellectual property.

Teachers can

- identify various brainstorming methods (e.g., free association, mind mapping)
- provide information on copyright, trademarks, and registered names and discuss their uses with the class
- invite student groups to name their ventures, search and register the names, and choose appropriate means to protect any other intellectual properties they create
- provide case studies exploring ethical considerations of various entrepreneurial activities
- stage a mock trial to defend copyright or settle a partnership disagreement

Students can

- work in groups to research demographic and economic information describing a community and its future trends (e.g., distribution of age groups, incomes, education levels, household sizes, immigration, emigration, employment patterns, economic activities)
- summarize the information in a series of wall charts and brainstorm a list of new marketable products or services
- select a product or service from the list, design a feasibility study to evaluate it, and present the proposed study to the class for critical review
- revise their plans as needed (based on identified criteria) and then conduct their feasibility studies. (If the idea is not feasible, teachers can encourage groups to fully research whether their plans can be salvaged before considering other options. For example, students may want to align themselves with other groups or choose from other ideas presented by the teacher.)
- review their methods and conclusions when the studies are complete and modify them as needed; present their results to a venture capitalist for review

Opportunity Knocks

Students will be expected to generate ideas and identify entrepreneurial opportunities.

Suggestions for Assessment

As students work in teams to analyse opportunities and suggest whether business ventures are feasible, they demonstrate their understanding of the steps involved in initiating a business venture.

- Students can research trends and brainstorm business opportunities that may result from societal and technological change. Note the extent to which they
  - recognize opportunities and distinguish them from other ideas
  - describe elements of the opportunities that relate to unfilled and unrealized market needs
  - identify changes in society and describe how changes create new market needs
- Student groups can prepare and conduct a feasibility study for a business opportunity. As groups present their studies, record evidence that they
  - select appropriate research methods and data sources
  - estimate profitability and describe the feasibility of the opportunities based on the size and growth potential of the market, a competitive market analysis, and the barriers to entry
- As students justify research methodology, note evidence that they
  - provide reasons for selecting specific data-gathering procedures
  - describe measures taken to ensure reliable and valid data
  - explain and justify the processes used to analyse and interpret data
  - describe measures taken to acknowledge the limitations of their studies
- To check students' understanding of methods to protect intellectual property, ask questions such as
  - What types of intellectual property are there?
  - What is the best method of protection for each type? Why is it best?

Note the extent to which responses reveal an understanding of the different methods of protection (copyright, trademarks, and registered names) and where each applies.

Resources/Notes

Entrepreneurship: A Way of Life is a series of booklets in support of Entrepreneurship 12. The booklets provide useful background information as well as student activities. Currently these booklets are being revised by the Centre for Entrepreneurship Education and Development (CEED) and are expected to be available in 2003.

Copy Right! Teacher's guide and student video produced by CFEE, Canadian Foundation for Economic Education (1997). The guide provides teachers with relevant background information, suggestions for instructional activities, students handouts, and a student video.

Paving the Way

Students will be expected to develop and implement strategies to set and attain entrepreneurial goals.

Outcomes	Suggestions for Learning and Teaching
Students will be expected to	*Teachers can*

• demonstrate effective planning
• demonstrate the ability to develop strategies to deal with challenges
• make and implement informed decisions
• demonstrate the ability to reflect on and learn from experience
• demonstrate a clear understanding of the value of a business plan
	• encourage the students to plan and record all activities
	• provide samples of business plans
	• encourage students to check the feasibility of their business ideas
	• encourage students to
	  – visit Statistics Canada
	  – research Web sites
	  – seek advice from mentors, when possible
	• engage the students in a market research exercise; discuss the topic, what market research can tell you, and use this opportunity to explain the importance of marketing
	• review the four Ps of marketing (product, price, promotion, and place)
	• involve the student in a marketing research activity; discuss the importance of identifying and researching a specific target audience
	• encourage students to build on their business plans as they acquire more information
	• hold individual consultations with students to discuss their proposed businesses:
	  – Progress to date.
	  – What do they need?
	  – Are they having any difficulties?
	
	Students can
	
	• develop an action plan for a mini-venture, which should include a summary of their business plan and the activities they have to do to start the venture
	• present their plans to their peers. (Teachers should encourage peers to suggest a "what if" strategy comprising of possible challenging scenarios and then encourage groups to be supportive as students try to respond to the challenges.)
	• identify mentors

Paving the Way

Students will be expected to develop and implement strategies to set and attain entrepreneurial goals.

Suggestions for Assessment

Teachers can

- provide a rubric or construct one with students that will assist both teachers and students to understand how projects will be evaluated *(Teachers should use rubrics not only as a checklist for assessment, but also as a basis for negotiating expectations for project work with the student.)*
- monitor student progress and provide feedback and/or appropriate directions at regular intervals
- prepare a variety of assessment materials for students who need to acquire specific skills or understandings throughout the process
- have students submit their business plans for evaluation
- have students identify a local entrepreneur and identify the four Ps of his/her business; this could be done as an individual or group presentation or as an individual written assignment

Students can

- maintain a writing log throughout the development of their projects, such as recording agreements with the teacher on goals to be reached at various stages of development, thus allowing the teacher to monitor progress and provide timely feedback
- engage in discussions about the projects of other students and provide comments and suggestions for their improvement
- critique project designs regularly throughout the process, generating feedback from teachers, parents, and other students as well as resource people who might be involved
- design and complete self- and/or peer-assessments of their venture plans
- generate a list of resources they have found (e.g., through Web research, mentor search, etc.) and evaluate the usefulness of these resources

Resources/Notes

See Appendices A, E, and F

- Rubric for Assessing Project Implementation
- Teamwork Rating Scale
- Project Rubric

Entrepreneurship: Creating a Venture, Second Edition. Nelson (2001). Chapter 7, "The Venture Plan." Chapter 8, "Analyzing Your Market."

Making Connections

Students will be expected to demonstrate a basic understanding of the role of entrepreneurship in the local, national, and international economies.

Outcomes	Suggestions for Learning and Teaching
Students will be expected to	*Teachers can*

Outcomes

Students will be expected to

- analyse connections among political, economic, environmental, and social issues
- explore the impact of entrepreneurship on local, national, and international economies
- reflect critically on ethical issues related to entrepreneurship activities
- recognize the relationship among local, national, and international markets
- identify the potential for local businesses or ventures in the global market
- reflect critically on ethical issues related to entrepreneurship activities
- identify trends that influence the marketplace

Suggestions for Learning and Teaching

Teachers can

- review the concept of market
- discuss the roles of consumer, producer, buyer, seller
- provide examples of goods and services that are exchanged in global markets
- help students to identify the value of entrepreneurship to communities
- engage students in discussing their own experience as consumers in a global market
- discuss current market trends and possible future trends
- engage students in an international research exercise
- have students examine the yellow pages in the telephone directory and identify local, national, and international businesses

Students can

- conduct Internet searches to identify "universal" products sold in most nations (Big Macs, Coca-Cola, Nike sneakers, etc.)
  - research costs of such products in various countries
  - tabulate the results in a chart and interpret the information
- make presentations and hold discussions with their peers
- identify marketing strategies that address changing trends in society (e.g., Saturn—women's car)
- invite students enrolled in other courses (e.g., economics, global geography, computer-related studies) to share their expertise in cross-curricular presentations and projects

Making Connections

Students will be expected to demonstrate a basic understanding of the role of entrepreneurship in the local, national, and international economy.

Suggestions for Assessment	Resources/Notes
Students can	CFEE's *Environomics: Exploring the Links between the Economy and the Environment: A Teaching Kit.* Toronto: Canadian Foundation for Economic Education, 1996.

Suggestions for Assessment

Students can

- find a recent news event that influences the market for a particular product, provide an interpretation, and present analysis to the class
- identify and research illegal markets, provide an interpretation, and present analysis to the class
- research ethical issues in the context of global economics, provide examples, and present these to the class (see Outcomes, p. 22)
- identify global entrepreneurs and present a case study
- describe how individuals, businesses, and nations compete in the global economy
- research the interrelationships among local, national, and international entrepreneurs and present findings to group/class
- interview a local entrepreneur who has expanded into a global market, record the interview, and share it with the class, asking questions, such as
  - When did you expand your business internationally? Why?
  - Which nations do you do business in?
  - Describe your markets. Have you targeted individual consumers, or other businesses or governments? If consumers, what ages? what occupations? If businesses, what types?
  - What goods and services do you sell to other nations? buy from other nations?
  - Describe your international activities.
  - What steps were required to enter the global market? How long did it take? What problems did you encounter?
  - What skills did you have to be successful in the global market? What skills did you have to acquire? Did that require any special training?
  - What gives you the competitive edge in your chosen global market?
  - Has your move into the global market been profitable? Why or why not?
  - What advice would you give to a business considering expanding into the global marketplace?
  - What cultural/political considerations would your business require?

Resources/Notes

CFEE's *Environomics: Exploring the Links between the Economy and the Environment: A Teaching Kit.* Toronto: Canadian Foundation for Economic Education, 1996.

This resource contains a useful introduction to the concept of markets and market forces—supply, demand, competition, price, private property, government intervention, etc.

Entrepreneurship: A Way of Life
Unit 5: Is the Foundation Solid?
Lesson 1: What Is Marketing?
Lesson 2: Market Segmentation/Selecting Target Markets/Positioning
Lesson 3: Market Research

Two books that are useful as teacher resources:

- Foot, David K., and Daniel Stoffman. *Boom, Bust, and Echo 2000: Profiting from the Demographic Shift in the New Millenium.* Toronto: McFarlane, Walter and Ross, 2000.
- Popcorn, Faith, and Lys Marigold. *Clicking: 16 Trends to Future Fit Your Life, Your Work, and Your Business.* New York: Harper Business, 1998.

Diving In
Students will be expected to plan, implement, and evaluate a business or venture.

Outcomes

Students will be expected to

- prepare and present a plan to implement a business or venture
- identify the criteria for assessing and evaluating the success of a business or venture
- demonstrate a creative, resourceful approach in seeking the resources to start a business or venture
- identify alternative funding sources for a business or venture
- implement a business or venture
- track the finances involved in their business venture
- apply basic business skills such as bookkeeping, accounting management, finance, and human resources
- demonstrate a commitment to ethical behaviour when developing and operating a business or venture
- explain the role of financial institutions in supporting businesses and ventures
- review and reflect upon the business or venture experience
- share with peers the results of the business or venture experience
- negotiate assessment and evaluation of their business

Suggestions for Learning and Teaching

Teachers can create opportunities for mini-ventures.

The mini-venture is action-based. It provides students with opportunities to put their entrepreneurial ideas into action and to take ownership of their learning—to identify the outcomes they plan to achieve through their experiences in venture creation, to shape their learning experiences, and to negotiate how their learning will be assessed and evaluated. Students decide whether they will engage in venturing individually or in small groups. The mini-venturing is intended to be a brief experience, running from an hour to a half-day or, if possible, a full day. It is important to identify when the venturing begins and where it ends.

Whether a student chooses to take part in an individual, small-group, or large-group venture, the process of planning, implementing, and evaluating an entrepreneurial venture will involve the following:

- generating ideas
- identifying opportunities
- planning the venture (includes planning for individual student learning)
- implementing the plan
- reporting
- evaluating the venture

Students can

- build on their mini-venture experience to create a plan for another business or venture
- identify resources to support their business plan (other students, community and financial resources, etc.)
- present their plan to the class for feedback
- make modifications to the plan in concert with their peers and the teacher
- implement their business/venture
- evaluate their business/venture

Teachers can

- review steps in financial planning
- discuss ways of raising capital for start-up costs

Students can

- prepare estimates of production costs and projected income

Diving In
Students will be expected to plan, implement, and evaluate a business or venture.

Suggestions for Assessment	Resources/Notes

Suggestions for Assessment

The venture component of this course lends itself to student self-assessment and peer assessment.

Teachers can

- provide a rubric (see Appendix F) or construct one with students that will assist both teachers and students to understand how business/ventures will be evaluated (*Teachers should use rubrics not only as a checklist for assessment, but also as a basis for negotiating expectations for project work with the student.*)
- monitor student progress and provide feedback and/or appropriate directions at regular intervals
- prepare a variety of assessment materials for students who need to acquire specific skills or understandings throughout the process

Students can

- maintain a journal throughout the development of their business venture; include agreements with the teacher on goals to be reached at various stages of development so that the teacher can monitor progress and provide timely feedback
- engage in discussions about the business/venture plans of other students and provide comments and suggestions for their improvement
- critique business/venture plans regularly throughout the process, generating feedback from teachers, parents, and other students as well as resource people who might be involved
- start, operate, and close their business/venture within the specified time
- prepare a post-activity report
- debrief on their business/venture with peers

Resources/Notes

Teachers need to emphasize to students that success is not a given in venturing and that failures in venturing provide opportunities to learn new knowledge and skills. Teachers need to give students opportunities to reflect on what has been learned, what to improve, what to change, and whether the venture was a success or a failure.

See Chapter 10, "Financing Your Dream," *Entrepreneurship, Second Edition*. Nelson 2001.

Teachers can expect that many of the student businesses/ventures will be implemented outside of class/school time. Remind students that they are expected to complete a minimum of 50 hours of entrepreneurial activities outside of the classroom. Discuss strategies to ensure student safety outside of school when implementing such activities.

Technology and Entrepreneurship

Students will be expected to demonstrate an understanding of the role of technology and its application to entrepreneurship.

Outcomes	Suggestions for Learning and Teaching
Students will be expected to • demonstrate an understanding of the role of technology in business • demonstrate the ability to use technology in an entrepreneurial activity • identify opportunities in technology-related businesses • use the Internet for business purposes	Teachers can promote the safe use of technologies in • the exploration of ideas • data collection • data manipulation, including the discovery of patterns and relationships • problem solving • the representation of learning Teachers can promote the use of information and communication technologies by • encouraging students to rationalize the use of information technologies to research, solve problems, and make informed decisions • encouraging students to use IT as they interact and communicate with others in national and global contexts • encouraging students to make decisions about applications that help them to achieve curriculum outcomes • encouraging students to explore the possibility of pursuing technology-related ventures or businesses *Students can* • use technology in the planning of their activities and projects, reporting on the process of implementing activities, and tracking the results of those activities • use technology to build theories; access data; collect, create, obtain, analyse, and synthesize information; and make statistical analyses • use technology to create, edit, and publish information and share information, ideas, and concerns with others—peers or mentors • create a business plan using PowerPoint • create a Web site to promote a business (real or hypothetical) • create a CD that illustrates the various technologies used in businesses in their community (Students will need to use a variety of technologies, e.g., digital camera, CD burner, scanner, during the creation of the CD.)

Technology and Entrepreneurship

Students will be expected to demonstrate an understanding of the role of technology and its application to entrepreneurship.

Suggestions for Assessment

Students can

- use appropriate technologies to design/produce marketing material
- select appropriate technologies to communicate effectively with a targeted audience exploring the use of design to enhance audience appeal
- share information collected from electronic sources to contribute to a group task
- generate a technological solution to a problem
- create a local business map using ArcView GIS
- analyse business geomatics applications using ArcView GIS and the business lessons, "Closed for Business" and "Tourism," which can be located on the LRT support CD, the ArcCanada CD, and the ESRI K–12 Web site
- contact and interview a local business that has used geomatics regarding how they addressed a business concern, such as location, transportation, or product marketing using geomatics

Resources/Notes

Examples of project management software programs that students might use include

- Microsoft Project
- Time Wizard from AC Software
- Captor

GoVenture, Live the Life of an Entrepreneur is a CD-ROM that addresses many of the learning outcomes for Entrepreneurship 12. Students are offered, through simulation, opportunities to start a business, make business decisions, and reflect upon entrepreneurship as a career option. The CD-ROM provides interesting graphics, is inclusive in character depictions, and is an effective classroom resource.

Teachers could also use spreadsheet programs to track time use, for example, Microsoft Excel.

Students could use PowerPoint for presentations and could incorporate a number of links that examine entrepreneurial issues and topics of interest.

All senior high students have access to ArcView GIS, a site- licensed mapping program used professionally in business geomatics, plus Canadian, Nova Scotia, and local data CDs.

Putting It All Together

Students will be expected to demonstrate the personal qualities and characteristics of successful entrepreneurs.

Outcomes	Suggestions for Learning and Teaching
Students will be expected to • apply teamwork skills to solve a business problem • assess how personal attributes influence the success of a venture • establish and use criteria to evaluate group processes and their own roles and contributions to the group process • reflect critically on ethical issues related to entrepreneurship activities • identify the roles of leadership and teamwork in entrepreneurial activities • demonstrate collaboration and consultation with others in entrepreneurial activities	Leadership and teamwork skills are essential to working productively in business, as they are in other areas of student life. Working in self-selected teams, students develop skills of leadership and teamwork and learn to respect others' points of view. *Teachers can* • discuss with students the role individuals play in groups • define "change" versus "transition" • present a scenario involving a business facing a major change, such as the banning of dairy products from food industries; invite students to form teams and develop response strategies • provide students with case studies describing individuals working in various ventures; ask them to identify in each case how personal attributes may have influenced the outcome of the venture • ask the class to develop a matrix showing the knowledge, skills, and attitudes a team needs to perform various business functions – have the members of student groups take turns playing different roles and carrying out different tasks in their groups – provide them with self- and group evaluation forms and ask them to evaluate how well they and their groups work as teams – discuss the evaluations with each team • provide the class with case studies of business situations in which unethical or questionable practices have been used; ask students to identify the questionable practices, the ethical issues they raise, and ways they might respond to them • encourage students to explore the concept of *intra*-preneurship through role playing (e.g., job interviews) *Students can* • observe and report on the teamwork skills their group used • develop a group-dynamics scenario • brainstorm ways in which personal attributes can influence the success or failure of a venture • research the various change agents that affect business • develop criteria for evaluating the leadership, communication, and co-operation skills of individuals on a team and discuss their validity in class • regularly evaluate how well they meet the criteria

Putting It All Together

Students will be expected to demonstrate the personal qualities and characteristics of successful entrepreneurs.

Suggestions for Assessment	Resources/Notes

Suggestions for Assessment

Students demonstrate their teamwork skills as they work with others to plan ventures and solve problems.

- As students work in teams to develop strategies to respond to a major change, note evidence that they
  - acknowledge challenges and opportunities brought about by change
  - listen actively and act responsibly and respectfully toward others
  - take responsibility for the group process
  - contribute ideas, experiences, and information to their groups
  - provide constructive feedback and assistance to others
  - complete individual tasks necessary for their groups' success
- Have students research negotiation and problem-solving models, then develop a set of criteria to use to evaluate their own work on team projects to solve business problems or role-play consensus building. Encourage them to include communication skills such as acknowledging and encouraging the contribution of others and recognizing and showing appreciation for different viewpoints.
- As students plan entrepreneurial ventures, have them keep logs of their teams' progress, paying particular attention to leadership functions, interpersonal skills, and team synergy. Review their logs and note the extent to which students
  - demonstrate a clear understanding of the purposes and goals of the ventures
  - recognize personal contributions to the success of the ventures
  - identify leaders and their assets to the teams
  - recognize the contributions of other members of the teams
  - refer to specific strategies or incidents and analyse how they worked
- Review students' case-study analyses of unethical or questionable business practices. Note evidence that students
  - recognize standards of right and wrong in business practice
  - distinguish between ethical and legal issues and the processes available to resolve each
- Have students present (to a group or whole class) an audio-visual synthesis of what they have learned. Note the content and style of the presentation and reaction of the audience.

Resources/Notes

See Chapter 2, "Entrepreneurs and Enterprising People" in *Entrepreneurship, Creating a Venture*. Nelson (2001)

Entrepreneurship in the Cultural Industries, A Teaching Resource (1998). (See video profiles and case studies of cultural entrepreneurs.)

Appendix L: Employability Skills Profile.

Contexts for Learning and Teaching

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 inquiry, 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 identities
   - 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 practices based on continuous reflection
   - reflect on their own learning processes and experiences

- 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

A Variety of Learning Styles and Needs

Learners have many ways of learning, knowing, understanding, and creating meaning. Research into links between learning styles and preferences and the physiology and function of the brain has provided educators with a number of helpful concepts of and models for learning. Howard Gardner, for example, in *Frames of Mind* (1983), identifies eight broad frames of mind or intelligences. Gardner believes that each learner has a unique combination of strengths and weaknesses in these eight areas, but that the intelligences can be more fully developed through diverse learning experiences. Other researchers and education psychologists use different models to describe and organize learning preferences.

Students' ability to learn is also influenced by individual preferences and needs within a range of environmental factors, including light, temperature, sound levels, nutrition, proximity to others, opportunities to move around, and time of day.

How students receive and process information and the ways they interact with peers and their environment, in specific contexts, are both indicators and shapers of their preferred learning styles. Most learners have a preferred learning style, depending on the context, just as most teachers have a preferred teaching style, depending on the context.

By reflecting on their own styles and preferences in various contexts, teachers can

- build on their own teaching-style strengths
- develop awareness of and expertise in a number of learning and teaching styles and preferences
- identify differences in student learning styles and preferences
- organize learning experiences to accommodate the range of ways in which students learn, especially for those for whom the range of ways of learning is limited

Learning experiences and resources that engage students' multiple ways of understanding allow them to become aware of and reflect on their learning processes and preferences. To enhance their opportunities for success, students need

- a variety of learning experiences to accommodate their diverse learning styles and preferences

- opportunities to reflect on their preferences and the preferences of others to understand how they learn best and that others may learn differently
- opportunities to explore, apply, and experiment with learning styles other than those they prefer, in learning contexts that encourage risk taking
- opportunities to return to preferred learning styles at critical stages in their learning
- opportunities to reflect on other factors that affect their learning, for example, environmental, emotional, sociological, cultural, and physical factors
- a time line appropriate for their individual learning needs within which to complete their work

More information may be found in Appendix F: Learning Styles.

The Senior High School Learning Environment

Creating Community

To establish the supportive environment that characterizes a community of learners, teachers need to demonstrate a valuing of all learners, illustrating how diversity enhances the learning experiences of all students, for example, by emphasizing courtesy in the classroom through greeting students by name, thanking them for answers, and inviting, rather than demanding, participation. Students could also be encouraged to share interests, experiences, and expertise with one another.

Students must know one another in order to take learning risks, make good decisions about their learning, and build peer partnerships for tutoring, sharing, co-operative learning, and other collaborative learning experiences. Through mini-lessons, workshops, and small-group dynamic activities during initial classes, knowledge is shared about individual learning styles, interpersonal skills, and team building.

The teacher should act as a facilitator, attending to both active and passive students during group activities, modelling ways of drawing everyone into the activity as well as ways of respecting and valuing each person's contribution, and identifying learners' strengths and needs for future conferences on an individual basis.

Having established community within the classroom, the teacher and students together can make decisions about learning activities. Whether students are working as a whole class, in small groups, in triads, in pairs, or individually, teachers should

- encourage comments from all students during whole-class discussion, demonstrating confidence in and respect for their ideas
- guide students to direct questions evenly to members of the group
- encourage students to discover and work from the prior knowledge in their own social, racial, or cultural experiences
- encourage questions, probing but never assuming prior knowledge
- select partners or encourage students to select different partners for specific purposes
- help students establish a comfort zone in small groups where they will be willing to contribute to the learning experience
- observe students during group work, identifying strengths and needs, and conference with individuals to help them develop new roles and strategies
- include options for students to work alone for specific and clearly defined purposes

Engaging All Students

A supportive environment is important for all learners and is especially important in encouraging disengaged or underachieving learners.

Entrepreneurship 12 provides opportunities to engage students who lack confidence in themselves as learners, who have a potential that has not been realized, or whose learning has been interrupted. These students may need substantial support in gaining essential knowledge and skills and in interacting with others.

Students need to engage fully in learning experiences that

- are perceived as authentic and worthwhile
- build on their prior knowledge
- allow them to construct meaning in their own way, at their own pace
- link learning to understanding and affirming their own experiences
- encourage them to experience ownership and control of their learning
- feature frequent feedback and encouragement
- include opportunities for teachers and others to request and receive clarification and elaboration
- are not threatening or intimidating
- focus on successes rather than failures
- are organized into clear, structured segments

It is important that teachers design learning experiences that provide a balance between challenge and success and between support and autonomy.

All students benefit from a variety of grouping arrangements that allow optimum opportunities for meaningful teacher-student and student-student interaction. An effective instructional design provides a balance of the following grouping strategies:

- large-group or whole-class learning
- teacher-directed small-group learning
- small-group-directed learning
- co-operative learning groups
- one-to-one teacher-student learning
- independent learning
- partnered learning
- peer or cross-age tutoring
- mentoring

Meeting the Needs of All Students

Learners require inclusive classrooms, where a wide variety of learning experiences ensures that all students have equitable opportunities to reach their potential.

Teachers must adapt learning contexts, including environment, strategies for learning, and strategies for assessment, to provide support and challenge for all students, using curriculum outcomes to plan learning experiences appropriate to students' individual learning needs.

In recognizing and valuing the diversity of students, teachers should consider ways to

- create a climate and design learning experiences to affirm the dignity and worth of all learners in the classroom community
- give consideration to the social and economic situations of all learners
- model the use of inclusive language, attitudes, and actions supportive of all learners
- acknowledge racial and cultural uniqueness
- adapt classroom organization, teaching strategies, assessment practices, time, and learning resources to address learners' needs and build on their strengths
- provide opportunities for learners to work in a variety of contexts, including mixed-ability groupings
- identify and utilize strategies and resources that respond to the range of students' learning styles and preferences
- build on students' individual levels of knowledge, skills, and attitudes
- design learning and assessment tasks that draw on learners' strengths
- use students' strengths and abilities to motivate and support their learning

- provide opportunities for students to make choices that will broaden their access to a range of learning experiences
- acknowledge the accomplishment of learning tasks, especially those that learners believed were too challenging for them

When these changes are not sufficient for a student to meet designated outcomes, an individual program plan is required. For more detailed information, see *Special Education Policy Manual* (1996), Policy 2.6.

In a supportive learning environment, all students receive equitable access to resources, including the teacher's time and attention, technology, learning assistance, a range of roles in group activities, and choices of learning experiences when options are available.

All students are disadvantaged when oral, written, and visual language creates, reflects, and reinforces stereotyping. Teachers promote social, cultural, racial, and gender equity when they provide opportunities for students to critically examine the texts, contexts, and environments associated with Entrepreneurship 12 in the classroom, in the community, and in the media. Teachers should look for opportunities to

- promote critical thinking
- recognize knowledge as socially constructed
- model gender-fair language and respectful listening in all their interactions with students
- articulate high expectations for all students
- provide equal opportunity for input and response from all students
- encourage all students to assume leadership roles
- ensure that all students have a broad range of choice in learning and assessment tasks
- encourage students to avoid making decisions about roles and language choices based on stereotyping
- include the experiences and perceptions of all students in all aspects of their learning
- recognize the contributions of men and women of all social, cultural, linguistic, and racial backgrounds to all disciplines throughout history

Social and cultural diversity in student populations expands and enriches the learning experiences of all students. Students can learn much from the backgrounds, experiences, and perspectives of their classmates. In a community of learners, participants explore the diversity of their own and others' customs, histories, values, beliefs, languages, and ways of seeing and making sense of the world.

When learning experiences are structured to allow for a range of perspectives, students from varied social and cultural backgrounds realize that their ways of seeing and knowing are not the only ones possible. They can come to examine more carefully the complexity of ideas and issues arising from the differences in their perspectives and understand how cultural and social diversity enrich their lives and their culture.

The curriculum outcomes designed for Entrepreneurship 12 provide a framework for a range of learning experiences for all students.

A range of learning experiences, teaching and learning strategies, resources, and environments provides expanded opportunities for all learners to experience success as they work toward the achievement of designated outcomes. Many of the learning experiences suggested in this guide provide access for a wide range of learners, simultaneously emphasizing both group support and individual activity. Similarly, the suggestions for a variety of assessment practices provide multiple ways for students to demonstrate their achievements.

In order to provide a range of learning experiences to challenge all students, teachers may adapt learning contexts to stimulate and extend learning. Teachers should consider ways that students can extend their knowledge base, thinking processes, learning strategies, self-awareness, and insights. Some learners can benefit from opportunities to negotiate their own challenges, design their own learning experiences, set their own schedules, and work individually or with learning partners.

Some students' learning needs may be met by opportunities for them to focus on learning contexts that emphasize experimentation, inquiry, and critical and personal perspectives; in these contexts, teachers should work with students to identify and obtain access to appropriate resources.

Health and Safety

Student mini-ventures and business set-ups must include an element of safety education. Teachers should plan learning experiences with a specific safety focus to ensure that students are safe when they are involved in entrepreneurial activities outside of the classroom. Discuss with students appropriate procedures and routines in order that students may acquire

- a strong orientation toward both personal and group safety
- an awareness of potential safety hazards at school and in the workplace
- a knowledge of safety procedures and safe work habits
- a knowledge of emergency procedures
- the ability to design and maintain safe work areas

Learning beyond the Classroom

Entrepreneurship 12 offers many opportunities for students to extend learning beyond the classroom. Alternative settings provide students with opportunities to connect their learning to tangible, practical purposes, their future education and career plans, and the world beyond the high school setting. In fact, the expectation is that students will engage in entrepreneurial activities for at least 50 hours outside of class time.

Teachers may choose to organize learning experiences that include

- activities with mentors
- classroom visits from entrepreneurs
- field trips to local business, industry, and community sites
- a focus on exploration of entrepreneurship through job shadowing
- work placements that extend and reinforce learning
- entrepreneurship projects
- use of Internet listserv, news group, bulletin board, and on-line conversations

It is important that administrators and teachers work to establish mutually beneficial relationships with businesses, organization, and industries in the community. Class or group field trips are an effective way to initiate the contact. In organizing field trips teachers should

- visit the facility beforehand to identify potential safety issues, establish a relationship with personnel, and clarify the purposes of the trip
- work with students to articulate clear expectations for learning during the field trip experience
- schedule field trips to complement preceding and subsequent classroom learning experiences
- ensure that the field trip complies with their board's guidelines and policies
- establish class practices and procedures that promote positive and ongoing community relationships

The Role of Technology

Vision for the Integration of Information Technologies

The Nova Scotia Department of Education has articulated five components to the learning outcomes framework for the integration of IT within curriculum programs:

1. **Basic Operations and Concepts**

   concepts and skills associated with the safe, efficient operation of a range of information technologies

2. **Productivity Tools and Software**

   - the efficient selection and use of IT to perform tasks such as
   - the exploration of ideas
   - data collection
   - data manipulation, including the discovery of patterns and relationships
   - problem solving
   - the representation of learning

3. **Communications Technology**

   the use of specific, interactive technologies that support collaboration and sharing through communication

4. **Research, Problem Solving, and Decision Making**

   the organization, reasoning, and evaluation by which students rationalize their use of IT

5. **Social, Ethical, and Human Issues**

   that understanding associated with the use of IT that encourages in students a commitment to pursue personal and social good, particularly to build and improve their learning environments and to foster stronger relationships with their peers and others who support their learning

Integrating Information and Communication Technologies within the Classroom

As information technologies shift the ways in which society accesses, communicates, and transfers information and ideas, they inevitably change the ways in which students learn.

Students must be prepared to deal with an information and communications environment characterized by continuous, rapid change, an exponential growth of information, and expanding opportunities to interact and interconnect with others in a global context.

Because technologies are constantly and rapidly evolving, it is important that teachers make careful decisions about applications, always in relation to the extent to which technology applications help students to achieve the curriculum outcomes.

Technology can support learning for the following specific purposes.

Inquiry

Theory Building: Students can develop ideas, plan projects; track the results of growth in their understanding, develop dynamic, detailed outlines; and develop models to test their understanding using software and hardware for modelling, simulation, representation, integration, and planning.

Data Access: Students can search for and access documents, multimedia events, simulations, and conversations through hypertext/hypermedia software; digital, CD-ROM, and Internet libraries, and databases.

Data Collection: Students can create, obtain, and organize information in a range of forms, using sensing, scanning, image and sound recording and editing technology, databases, spreadsheets, survey software, and Internet search software.

Communication

Media Communication: Students can create, edit, and publish, present, or post documents, presentations, multimedia events, Web pages, simulations, models, and interactive learning programs, using word processing, publishing, presentation, Web page development, and hypertext software.

Interaction/collaboration: Students can share information, ideas, interests, concerns, and questions with others through e-mail; Internet audio, video, and print conferences; information servers; Internet news groups and listservs; and student-created hypertext environments.

Teaching and Learning: Students can acquire, refine, and communicate ideas, information, and skills using tutoring systems and software, instructional simulations, drill and practice software, and telementoring systems.

Expression

Students can shape the creative expression of their ideas, feelings, insights, and understandings using graphic software, music making, composing, editing, and synthesizing technology; interactive video and hyper media, animation software; multimedia composing technology; sound and light control systems and software; and video and audio recording and editing technology.

Assessing and Evaluating Student Learning

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

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

The Principles of Assessment and Evaluation articulated in the document *Public School Programs* should be used as the basis of assessment and evaluation, policies, procedures, and practices.

Effective Assessment and Evaluation Practices

Effective assessment improves the quality of learning and teaching. It can help students to become more reflective and to have control of their own learning, and it can help teachers to monitor and focus their instructional programs.

Assessment and evaluation of student learning should accommodate the complexity of learning and reflect the complexity of the curriculum. Evaluation should be based on the full range of learning outcomes towards which students have been working during the reporting period, be proportionate to the learning experiences related to each outcome, and focus on patterns of achievement as well as specific achievement.

In reflecting on the effectiveness of their assessment program, teachers should consider the extent to which their practices

- are fair in terms of the student's background or circumstances
- are integrated with learning
- provide opportunities for authentic learning
- focus on what students can do rather than on what they cannot do
- provide students with relevant, supportive feedback that helps them to shape their learning
- describe students' progress toward learning outcomes
- help them to make decisions about revising, supporting, or extending learning experiences
- support learning risk taking
- provide specific information about the processes and strategies students are using
- provide students with diverse and multiple opportunities to demonstrate their achievement
- provide evidence of achievement in which students can take pride

- acknowledge attitudes and values as significant learning outcomes
- encourage students to reflect on their learning and to articulate personal learning plans
- help them to make decisions about teaching strategies, learning experiences and environments, student grouping, and resources
- accommodate multiple responses and a range of tasks and resources
- include students in developing, interpreting, and reporting on assessment

Involving Students in the Assessment Process

When students are aware of the outcomes they are responsible for 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.

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 should have access to models in the form of scoring criteria, rubrics, and work samples.

As lifelong learners, students assess their own progress, rather than relying on external measures, for example, marks, to tell them how well they are doing. Students who are empowered to assess their own progress are more likely to perceive their learning as its own reward. Rather than asking, What does the teacher want?, students need to ask questions such as, What have I learned? What can I do now that I couldn't do before? What do I need to learn next?

Effective assessment practices provide opportunities for students to reflect on their progress toward achievement of learning outcomes

- assess and evaluate their learning
- set goals for future learning

Diverse Learning Styles and Needs

Teachers should develop assessment practices that affirm and accommodate students' cultural and linguistic diversity. Teachers should consider patterns of social interaction, diverse learning styles, and the multiple ways oral, written, and visual language are used in different cultures for a range of purposes. Student performance takes place not only in a learning context, but in a social and cultural context as well.

Assessment practices must be fair, equitable, and without bias, providing a range of opportunities for students to demonstrate their learning.

Teachers should be flexible in evaluating the learning success of students and seek diverse ways for students to demonstrate their personal best. In inclusive classrooms, students with special needs have opportunities to demonstrate their learning in their own way, using media that accommodate their needs, and at their own pace.

Using a Variety of Assessment Strategies

When teachers make decisions about what learning to assess and evaluate, how to assess and evaluate, and how to communicate the results, they send clear messages to students and others about what learning they value; for example, teachers can communicate that they value risk taking or lateral thinking by including these elements in determining marks.

Assessment involves the use of a variety of methods to gather information about a wide range of student learning and to develop a valid and reliable snapshot of what students know and are able to do, which is clear, comprehensive, and balanced. The assessment process provides information about each student's progress toward achievement of learning outcomes that teachers can use to assign marks, to initiate conversations with students, or to make decisions in planning subsequent learning experiences.

Teachers align assessment and evaluation practices with student-centred learning practices when they

- design assessment and evaluation tasks that help students make judgments about their own learning and performance
- provide assessment and evaluation tasks that allow for a variety of learning styles and preferences
- individualize assessment and evaluation tasks to accommodate specific learning needs
- work with students to describe and clarify what will be assessed and evaluated and how it will be assessed and evaluated
- provide students with regular, specific, frequent, and consistent feedback on their learning

Assessment activities, tasks, and strategies include, for example,

- anecdotal records
- audiotapes
- certifications
- demonstrations
- exhibitions
- investigations
- learning logs or journals
- media products
- peer assessments
- portfolios
- artifacts
- checklists
- conferences
- dramatizations
- interviews (structured or informal)
- inventories
- observations
- performance tasks
- presentations
- projects
- questioning
- quizzes, tests, examinations
- reports
- self-assessments
- surveys
- work samples
- questionnaires
- rating scales
- reviews of performance
- sorting scales (rubrics)
- videotapes
- written assignments

Portfolios

A major feature of assessment and evaluation in Entrepreneurship 12 is the use of portfolios. A portfolio is a purposeful selection of a student's work that tells the story of the student's efforts, progress, and achievement.

Portfolios engage students in the assessment process and allow them to participate in the evaluation of their learning. Portfolios are most effective when they provide opportunities for students to reflect on and make decisions about their learning. The students and teacher should collaborate to make decisions about the contents of the portfolio and to develop the criteria for evaluating the portfolio. Portfolios should include

- the guidelines for selection
- the criteria for judging merit
- evidence of student reflection

Portfolio assessment is especially helpful for the student who needs significant support. Teachers should place notes and work samples from informal assessment in the portfolio and use the portfolio to collaborate with the student in identifying strengths and needs, selecting learning experiences, and selecting work that best reflects the student's progress toward achievement of learning outcomes.

It is important that students share their portfolios with other students so that all students may see exemplars that represent a range of strategies for expression and levels of complexity in ideas and understanding. Outlines and other evidence of planning, along with multiple revisions, allow students to examine their progress and demonstrate achievement to teachers, parents, and others.

Students should be encouraged to develop a portfolio that demonstrates their achievements in a context beyond a particular course, including letters, certificates, and photographs, for example, as well as written documents. A high school portfolio can be very helpful when students need to demonstrate their achievements to potential employers or admission offices of post-secondary institutions.

Tests and Examinations

Traditional tests and examinations are not, by themselves, adequate to assess student learning. The format of tests and examinations can be revised and adapted to reflect key aspects of the curriculum. Some teachers, for example, have designed tests and examinations based on collaborative or small-group learning, projects, or portfolio learning. Creating opportunities for students to collaborate on a test or examination is an effective practice in the interactive classroom, when assessing learning of a higher order than recall of information, for example, learning that requires synthesis, analysis, or evaluation.

In learning activities that involve responding to a text or solving a problem, for example, students might work collaboratively to clarify and define the task and then work either collaboratively or individually to develop an answer. Students might be given a range of questions, issues, or problems and work collaboratively to clarify their understanding of the assignments and plan responses in preparation for the examination for which only one of the questions, issues, or problems will be assigned. The initial list of questions, issues, or problems can be developed by the teacher, negotiated by the teacher with students, or developed by students and screened by the teacher.
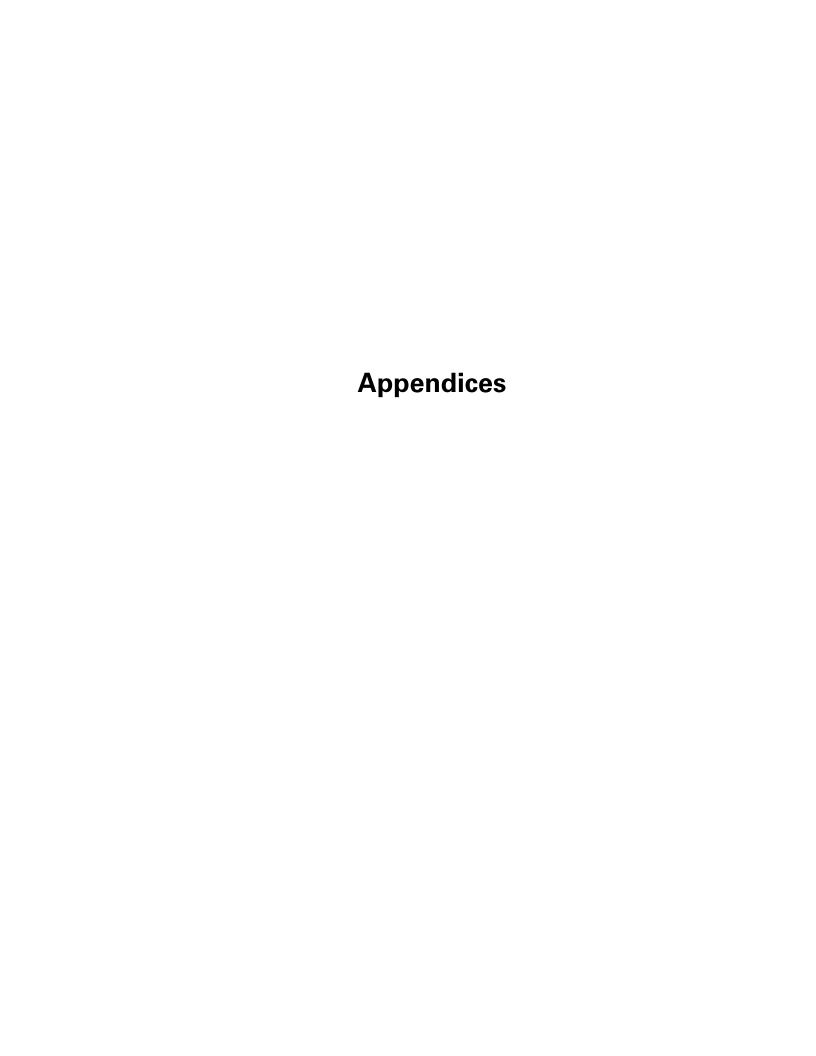
Process-based tests and examinations allow students demonstrate knowledge and skills and apply strategies at multiple stages in learning processes, for example, in creating texts; responding to texts or issues; solving problems; or gathering, evaluating, and synthesizing information.

Traditional tests and examinations may present a number of problems in scheduling and resource allocation. Process-based tests and examinations may be undertaken in steps during several class periods over a number of days. Students have opportunities to revise, reflect on, and extend their knowledge and understanding. Teachers have opportunities to develop comprehensive assessments, to monitor and evaluate learning at multiple points in a process, and to use time flexibly.

Certification and Credentialling

In some courses, students will need to prepare to demonstrate their learning through entrance tests and examinations or to obtain or upgrade a certification. Replicating this type of assessment in the classroom can help students prepare for the conditions and assessment formats they may encounter in workplace and post-secondary situations.

To make this kind of assessment an effective learning experience, teachers should define a specific context and purpose, for example, the operation of a device, the identification of materials labels, or the demonstration of a technique or procedure.

Appendices

Appendix A: Rubric for Assessing Project Implementation

Demonstrates confidence in implementing the venture or project plan
4 Attends to all details in implementing the venture or project and articulates along the way the need for constant review and reflection in ensuring that all aspects are working as planned
3 Attends to all details in implementing the venture or project and does not get "derailed" when things do not go as planned
2 Follows the venture or project plan carefully, but shows a lack of preparedness when things do not go as planned
1 Does not follow the project plan carefully and as a result jeopardizes the success of the venture or project

Strives to develop a team spirit when implementing the venture or plan
4 Assigns roles and responsibilities for all those involved in the implementation of the venture or project and develops collegiality and co-operation among them to ensure its success
3 Assigns roles and responsibilities for all those involved in the implementation of the venture or project but does not develop an effective working relationship among them
2 Assigns some roles and responsibilities but leaves many aspects of the venture or project to chance
1 Does not perceive a need to assign roles and responsibilities for implementing the venture or plan

Establishes criteria to judge the success of the venture or project
4 Demonstrates a thorough understanding of the goals for the ventre or project and identifies standards for judging its success
3 Understands the goals for the venture or project but does not establish standards for judging its success
2 Does not make connections between success of the venture or project and achievement of the goals
1 Fails to achieve the goals of the venture or project satisfactorily

Evaluates the effectiveness of personal actions

4 Incorporates review and reflection activities consistently during the implementation of the venture or project and evaluates for immediate and long-term impact

3 Incorporates review and reflection activities occasionally during the implementation of the venture or project and evaluates for short-term effects only

2 Incorporates review and reflection activities sporadically throughout the implementation process

1 Rarely incorporates review and reflection activities during the implementation process

Discovers new learnings from both successes and failures

4 Articulates lessons learned from both successes and failures and incorporates these during the implementation process by modifying the venture or project plan

3 Articulates lessons learned from both successes and failures throughout the implementation process

2 Discovers lessons in what works well during the implementation process but fails to learn from mistakes

1 Demonstrates apathy in learning from successes and failures

Provides a comprehensive evaluation at the conclusion of the venture or project

4 Provides a comprehensive final evaluation for the venture or project based on a number of assessments and demonstrating how personal growth took place throughout the process

3 Provides a comprehensive final evaluation for the venture or project based on a number of assessments

2 Provides a final evaluation for the venture or project based on a limited number of assessments

1 Provides an incomplete final evaluation for the venture or project

Appendix B: Feasibility Study

Criteria	Rating
The research methodology and findings are presented in a logical and well-organized manner.	
The research problem is clearly defined, succinctly stated, and relates to the specifics of the business venture.	
The research objectives are realistic and clearly assess the feasibility of the business venture (e.g., gathering information about target market characteristics or preferences related to the venture; determining relative strengths and weaknesses of the competition).	
The research problem and research objectives are stated in an unbiased and objective manner.	
The research plan clearly describes how the information gathered will provide an answer to the research problem.	
Choice of data sources is justified, based on their suitability for gathering information about the research problem and objectives.	
Choice of data collection and analysis methods is justified, based on their suitability for the research problem and objectives and the parameters and time frame of the research project.	
The findings that relate to the research problem are highlighted in an executive summary.	
Conclusions provide a clear assessment of the feasibility of the business venture and recommend changes to the business concept.	

Key

5 Criteria evident at a strong level
4 Criteria evident at a competent level
3 Criteria evident at a satisfactory level
2 Criteria developing evident
1 Criteria not evident

Appendix C: Written Report

Rating	Criteria
Outstanding	Report is clearly written, insightful, thoughtful, and detailed. Summarizes and explains all relevant research findings and explains the implications for the business venture. Identifies specific required changes to the business concept and provides detailed support for the changes using evidence from the feasibility study.
Good	Report is complete, logical, and clear. Summarizes significant research findings and relates them to the business venture. Provides evidence from the study to support changes to the business concept.
Satisfactory	Report is generally clear and complete. Summary includes details of the research findings and may relate them to aspects of the business venture. Describes changes to the business concept.
Incomplete	Report is not sufficiently developed to evaluate. Student requires more time, instruction, or support to be successful.

Appendix D: Teamwork Self-Evaluation

Criteria	Rating	Evidence
• listens actively and is responsive and respectful toward others		
• takes responsibility for the group process and for achieving the team's goal		
• contributes ideas, experiences, and information to the team		
• provides constructive feedback and assistance to others		
• completes individual tasks necessary for the team's success		

Key*

4 Outstanding
3 Good
2 Satisfactory
1 Needs Practice

*Refer to teamwork rating scale, Appendix E, for descriptors.

Appendix E: Teamwork Rating Scale

	Rating		
Criteria	**Outstanding**	**Good**	**Satisfactory**
Listens actively and is responsive and respectful toward others.	Uses physical expression to build communications. Uses non-verbal cures effectively to show responsiveness and support of others.	Uses eye contact to show he or she is listening. Occasionally uses gestures and body language for emphasis or to show support.	Tries to make eye contact with the person being addressed. Uses body language, but shows little variation.
Takes responsibility for the group process and for achieving the team's goal.	Takes a leadership role and effectively facilitates the operation of the group. Persistently guides activity and discussion toward the objective of the task.	Takes responsibility for the group process by facilitating and extending discussions toward the objective of the task.	Is usually willing to accept group decisions and may share some responsibility for how the group works. Recognizes the group's goal.
Contributes ideas, experiences, and information to the team.	Offers clarification and elaboration as needed. Builds on others' ideas. Offers predictions and hypotheses and poses intriguing questions.	Often makes suggestions, asks questions, or adjusts thinking after listening to others. Develops ideas by providing details, examples, reasons, and explanations.	Contributes some suggestions and ideas to the group. Shows interest and curiosity in others' ideas and adds information.
Provides constructive feedback and assistance to others.	Analyses and generalizes beyond the immediate situation and is insightful about others' intentions. Frequently encourages the efforts of other group members.	Infers about others' feelings and behaviour. Shows support for others.	Is aware of others' feelings. Occasionally shows support for others.
Completes individual tasks necessary for the team's success.	Consistently completes assigned tasks within the time frame. Work is complete and thorough.	Usually completes tasks within the allotted time frame. Work is complete.	Tasks are complete but may occasionally not be completed on time.

Appendix F: Project Rubric

	Does not yet meet expectations: 1 Point	Meets expectations: 2 Points	Exceeds expectations: 3 Points	Self-Evaluation	Teacher Evaluation
Topic/Content	includes some essential information/elements and few details	includes essential information/ elements with enough elaboration to give audience an understanding of the topic	covers topic completely and in depth; encourages audience to reflect or inquire further		
Analysis/ Discussion/ Development	information/ideas presented without questioning or analysis	information/ideas selected, analysed, and evaluated	information/ideas selected and combined clearly and comprehensively		
Product/ Solution/ Inquiry	has limited effectiveness or is not effective	is effective	results are elegant, sophisticated, or comprehensive		
Specific Requirements	includes ____ or less____ *(to be filled in by teacher and student)*	includes at least _____	includes at least ____ or more_____		
Format	includes several inappropriate, incorrect, or ineffective elements	elements are generally used effectively, appropriately, and correctly	elements are used to enhance, clarify, and emphasize		
Group Work	works with others but has difficulty sharing decisions and responsibilities with others	works well with others, takes part in decisions, and contributes fair share to group	works well with others, assumes a clear role and related responsibilities, motivates others to do their best		
Presentation Skills	has some difficulty communicating ideas	communicates ideas with adequate preparation and some enthusiasm	communicates ideas with enthusiasm, clarity, and control		
			Total Points		

Appendix G: Summary of Class or Group Activity

Name: Date:

Never	Very Seldom		Seldom	Occasionally		Frequently		Very Frequently		Always
0	1	2	3	4	5	6	7	8	9	10
a. participation, effort										
b. attitude, sensitivity to others, sincerity										
c. co-operation, willingness to help and support others										
d. spontaneity, risk taking, enthusiasm, curiosity										
e. striving for a personal best, going beyond the minimum										
f. leadership and support roles in group activities										
g. listening skills, carrying out instructions, responding										
h. effective use of class time										
i. evidence of consistent progress										
j. evidence of planning and preparation										

Appendix H: Team Player Check List

Name: Date:

Never	Very Seldom		Seldom	Occasionally		Frequently		Very Frequently		Always
0	1	2	3	4	5	6	7	8	9	10
a. Participates—takes part in what is assigned to do										
b. Contributes—offers suggestions, ideas, open to the group										
c. Listens—actively listens to what other members are saying										
d. Encourages—encourages others to participate either verbally or through body language										
e. Striving for a personal best, Going beyond the minimum										
f. Co-operates—works with others to complete assigned tasks										
g. Takes responsibility—completes assigned tasks on time and to order										
h. Provides leadership—keeps team on task										
i. Compromises—accepts decisions of the team										
j. Supports—recognizes and helps those in the group needing assistance										

Appendix I: Learning Styles

Learners have characteristic strengths and preferences in accessing and processing information. Some prefer to focus on facts. Others may prefer theories and models. Some respond strongly to visual information, whereas others learn more effectively from written or spoken explanations. Some prefer to learn with other learners; others function more introspectively and prefer to work alone.

To be successful in the world beyond high school, learners need to use effectively a range of learning modes and styles. Effective workers in any field are observant, methodical, and careful, as well as innovative and curious. Full use of the rapidly expanding availability of information requires both visual and verbal learning skills.

Teachers can help students to understand their preferred learning style and recognize how their preferences influence the decisions and choices they make during their learning. Students need to build skills in both their preferred and less preferred modes of learning. For some students, their learning style is not a preference but a necessity, resulting from a special need or disability. It is important that teachers design learning experiences to accommodate these students' learning needs.

Learning style models can provide useful frameworks for the design of learning experiences that provide choice and encourage variety in learning style. There are many models for describing differences in learning preference. Commonly used models include the following.

Myers-Briggs Type Indicator (MBTI)

The Myers-Briggs Type Indicator uses scales derived from Carl Jung's theory of psychological types and identifies the following eight learning preference profiles:

- *extraverts* (try things out, focus on the outer world of people) or *introverts* (think things through, focus on the inner world of ideas)
- *sensors* (practical, detail-oriented, focus on facts and procedures) or *intuiters* (imaginative, concept-oriented, focus on meanings and possibilities)
- *thinkers* (skeptical, tend to make decisions based on logic and rules) or *feelers* (appreciative, tend to make decisions based on personal and humanistic considerations)
- *judgers* (set and follow agendas, seek closure even with incomplete data) or *perceivers* (adapt to changing circumstances, resist closure to obtain more data)

These preferences can be combined to describe 16 different learning style types, for example, ESTJ (extravert, sensor, thinker, perceiver) or INFJ (introvert, intuiter, feeler, judger).

Kolb's Learning Style Model

Hermann Brain Dominance Instrument (HBDI)

Kolb's Learning Style Model identifies preferences along two dimensions to yield four learning types.

Accessing information	concrete	abstract
Internalizing information	active	reflective

- *Type 1* (concrete, reflective) asks "Why?"
- *Type 2* (abstract, reflective) asks "What?"
- *Type 3* (abstract, active) asks "How?"
- *Type 4* (concrete, active) asks "What if?"

HBDI classifies relative preferences for thinking in four different modes based on the task-specialized functioning of the physical brain.

	Cerebral	Limbic
Left Brain	A	C
Right Brain	B	D

The four modes are

- *Quadrant A* (left brain, cerebral): logical, analytical, quantitative, factual, critical
- *Quadrant B* (left brain, limbic): sequential, organized, planned, detailed, structured
- *Quadrant C* (right brain, limbic): emotional, interpersonal, sensory, kinesthetic, symbolic
- *Quadrant D* (right brain, cerebral): visual, holistic, innovative

Felder-Silverman Learning Style Model

This model classifies learners as

- *sensing* learners (concrete, practical) or *intuitive* learners (conceptual, innovative)
- *visual* learners (pictures, diagrams, flow charts) or *verbal* learners (prefer written and spoken explanations)
- *inductive* learners (from specific to general) or *deductive* learners (from general to specific)
- *active* learners (trying things out, working with others) or *reflective* learners (thinking things through, working alone)
- *sequential* learners (linear, orderly) or *global* learners (holistic, systems thinkers)

Howard Gardner's Theory of Multiple Intelligences

Howard Gardner proposes that people are not simply more or less intelligent; rather they have different "intelligences." He has identified eight intelligences. The eight intelligences are

- linguistic
- logical/mathematical
- visual/spatial
- body/kinesthetic
- musical
- interpersonal
- intrapersonal
- naturalistic

Gardner suggests that the most effective learning experiences accommodate a range of intelligences.

Appendix J: Journals and Logbooks

Logbooks and journals are a part of many occupations and as such are highly reflective of the world of work. Many highly successful people keep a daily journal as a habit that helps them develop insights into their work. A journal may include sketches, diagrams, notes, quotes, questions, excerpts, and drafts.

The logbook or journal may be used to develop a final product, such as a report, design, profile, fictional text, or dramatization, or it may be a way of tracking progress and developing ideas and insights.

Students need to see the value of their journal writing, not only through frequent responses from the teacher, including assessments that "count," but also through assignments that provide linkages to previous and subsequent learning or that meet specific learning and/or personal needs for the student.

Since the logbook or journal can contain very personal thoughts and ideas stimulated by thought-provoking questions, the teacher must make provisions to honour the confidentiality of students' work, except where legally required to do otherwise.

Elements of the following journal assessment rubrics may be used in various combinations.

Journal Comment Rubric

Name	Comments
Ideas • interprets and analyses issues • describes new insight(s)	
Critical Thinking • identifies assumptions underlying an issue, problem, or point of view • probes beneath the surface for layers of significance • explains an issue from multiple perspectives	
Ethical Reasoning • uses rules or standards of right/wrong or good/bad to guide debate/ reflection	
Personal Experience • connects insights/thoughts to personal experience	
Development • content thoroughly developed	

Journal Scoring Rubric

Name: Score:

	1	2	3	Assessment Student/ Teacher	
Ideas	states facts	interprets and/or analyses an issue	interprets, analyses and describes a new insight(s)		
Critical Thinking	responds to a stated issue, problem, or point of view	identifies assumptions underlying an issue, problem, or point of view	questions assumptions underlying an issue, problem, or point of view		
Critical Thinking	responds to a stated issue, problem, or point of view	identifies more than one layer of significance	probes beneath the surface for multiple layers of significance		
Critical Thinking	describes a single response to a situation or problem	describes several responses to a situation or problem	sees implications of alternative responses to a situation or problem		
Critical Thinking	explains an issue from one perspective	explains an issue from more than one perspective	explains an issue from multiple perspectives		
Ethical Reasoning	does not consider ethical aspects of issues	recognizes and often applies standards/ rules	uses rules or standards of right/ wrong or good/bad to guide debate/ reflection		
Personal Experience	does not personalize journal	makes some connection to personal experience	connects insights and thoughts to personal experience		
Development	minimal development	content adequately developed	content thoroughly developed		

Appendix K: WebQuest

A WebQuest is an Internet-based inquiry or problem-solving learning experience in which students, usually working in groups, have access to a range of online and other resources. Students gather information and ideas to build a scaffold of understanding that leads them to insights or solutions, which they can share with others.

- *introduction:* use background information to articulate an engaging topic, issue, or question
- *task*: define the scope and limits of the task
- *plan*: identify steps; develop a graphic organizer, guiding questions, and assessment points
- *resources:* make a list of Internet, text*, and human resources
- *process*: analyse, evaluate, and synthesize ideas; organize refine, and present results
- *conclusion*: summarize, reflect on, and extend learning

*Text describes any language event, whether oral, written, or visual.

Appendix L: Employability Skills Profile

Employability Skills 2000+

The skills you need to enter, stay in, and progress in the world of work—whether you work on your own or as a part of a team.

These skills can also be applied and used beyond the workplace in a range of daily activities.

Fundamental Skills
The skills needed as a base for further development

You will be better prepared to progress in the world of work when you can:

Communicate
- read and understand information presented in a variety of forms (e.g., words, graphs, charts, diagrams)
- write and speak so others pay attention and understand
- listen and ask questions to understand and appreciate the points of view of others
- share information using a range of information and communications technologies (e.g., voice, e-mail, computers)
- use relevant scientific, technological and mathematical knowledge and skills to explain or clarify ideas

Manage Information
- locate, gather and organize information using appropriate technology and information systems
- access, analyze and apply knowledge and skills from various disciplines (e.g., the arts, languages, science, technology, mathematics, social sciences, and the humanities)

Use Numbers
- decide what needs to be measured or calculated
- observe and record data using appropriate methods, tools and technology
- make estimates and verify calculations

Think & Solve Problems
- assess situations and identify problems
- seek different points of view and evaluate them based on facts
- recognize the human, interpersonal, technical, scientific and mathematical dimensions of a problem
- identify the root cause of a problem
- be creative and innovative in exploring possible solutions
- readily use science, technology and mathematics as ways to think, gain and share knowledge, solve problems and make decisions
- evaluate solutions to make recommendations or decisions
- implement solutions
- check to see if a solution works, and act on opportunities for improvement

Personal Management Skills
The personal skills, attitudes and behaviours that drive one's potential for growth

You will be able to offer yourself greater possibilities for achievement when you can:

Demonstrate Positive Attitudes & Behaviours
- feel good about yourself and be confident
- deal with people, problems and situations with honesty, integrity and personal ethics
- recognize your own and other people's good efforts
- take care of your personal health
- show interest, initiative and effort

Be Responsible
- set goals and priorities balancing work and personal life
- plan and manage time, money and other resources to achieve goals
- assess, weigh and manage risk
- be accountable for your actions and the actions of your group
- be socially responsible and contribute to your community

Be Adaptable
- work independently or as a part of a team
- carry out multiple tasks or projects
- be innovative and resourceful: identify and suggest alternative ways to achieve goals and get the job done
- be open and respond constructively to change
- learn from your mistakes and accept feedback
- cope with uncertainty

Learn Continuously
- be willing to continuously learn and grow
- assess personal strengths and areas for development
- set your own learning goals
- identify and access learning sources and opportunities
- plan for and achieve your learning goals

Work Safely
- be aware of personal and group health and safety practices and procedures, and act in accordance with these

Teamwork Skills
The skills and attributes needed to contribute productively

You will be better prepared to add value to the outcomes of a task, project or team when you can:

Work with Others
- understand and work within the dynamics of a group
- ensure that a team's purpose and objectives are clear
- be flexible: respect, be open to and supportive of the thoughts, opinions and contributions of others in a group
- recognize and respect people's diversity, individual differences and perspectives
- accept and provide feedback in a constructive and considerate manner
- contribute to a team by sharing information and expertise
- lead or support when appropriate, motivating a group for high performance
- understand the role of conflict in a group to reach solutions
- manage and resolve conflict when appropriate

Participate in Projects & Tasks
- plan, design or carry out a project or task from start to finish with well-defined objectives and outcomes
- develop a plan, seek feedback, test, revise and implement
- work to agreed quality standards and specifications
- select and use appropriate tools and technology for a task or project
- adapt to changing requirements and information
- continuously monitor the success of a project or task and identify ways to improve

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