

# Safety Protocols for Skilled Trades and Technology Education

These safety protocols define safety standards and practices for Skilled Trades and Technology Education courses in Nova Scotia public schools. The protocols provide specific instructions to ensure student safety while engaging in Skilled Trades and Technology Education courses. Implemented in conjunction with other EECD/RCE/CSAP safety procedures, these protocols will assist teachers in assessing, identifying, and controlling hazards in their learning spaces.

## Definitions

**EECD:** Nova Scotia Department of Education and Early Childhood Development

**RCE:** Regional Centre for Education

**CSAP:** Conseil scolaire acadien provincial

**hot work:** The National Fire Code of Canada (NFCC) defines hot work as “Any operation that produces heat, flames, or sparks such as welding, brazing, torch soldering, grinding, plasma cutting, other spark producing activities.”

**lockout/tag out kit:** A small toolbox containing a variety of lockout/tag out devices used to ensure that a tool or machine cannot be started or plugged in.

**personal protective equipment (PPE):** Personal protective equipment, commonly referred to as “PPE,” is equipment worn to minimize exposure to hazards that could cause serious injuries and/or illnesses.

**Safety-Net:** A set of resources developed through the Department of Education and Early Childhood Development to provide safety instruction and testing to students who are working with stationary machines and tools typically found in a Skilled Trades Centre or Production Technology Lab. A safer learning environment is created when students successfully complete [Safety-Net](#) requirements and receive a high level of teacher supervision.

**skilled trade:** A skilled trade is an occupation involving technical and hands-on work and requires a high level of skill, knowledge, and ability. In Nova Scotia, there are four general categories or sectors of skilled trades: construction, motive power, industrial/manufacturing, and service.

**Skilled Trades Centre:** An open concept high school learning space intended to mirror an industrial setting.

**Technology Education Lab:** An integrated, experiential, project-based learning environment designed to deliver Technology Education courses. Technology Education Labs may include:

- **Production Technology Lab:** A learning space with a capacity to manipulate wood from rough to finished product. Some production labs may contain metal processing equipment.
- **Innovations Technology Lab:** A learning space where students can create, discover, design, engineer, and build. The space inspires and nurtures discovery. It houses tools and space for students to work independently and collaboratively.
- **Media Technology Lab:** A learning space that includes tools, materials, and processes specific to designing and producing media related to film, audio, and modern communications systems.

# Safety Protocols

## Personal Protective Equipment and Clothing

- Appropriate Personal Protective Equipment (PPE) must be worn by everyone in Skilled Trades and Technology Education learning spaces while tools and equipment are being used.
- Skilled Trades courses require everyone in the learning space to be wearing PPE that aligns with the industry standards related to the course activities. See the Appendix for additional details.
- Technology Education courses taught in a Production Technology Lab require everyone to wear appropriate footwear and safety glasses while tools and equipment are being used. Other PPE may be required depending on the course activities. See the Appendix for additional details.
- All PPE must meet or exceed minimum standards as required by the regulations under the Nova Scotia *Occupational Health and Safety Act*.
- Everyone in Skilled Trades and Technology Education learning spaces must wear clothing safe for the learning activity. For example, shorts or nylon track pants are not safe for some activities, like welding. Teachers and students should remove jewelry and lanyards, secure loose clothing, and tie back long hair.

## First Aid and Incident Reporting

- A fully stocked first aid kit must be readily accessible in Skilled Trades and Technology Education learning spaces.
- Skilled Trades and Technology Education teachers must know where to locate the Automated External Defibrillator (AED) in their school.
- Students must immediately report injuries to the supervising teacher. All student incidents must be reported to the School Insurance Program (SIP) using the SIP Incident Report Form. Incidents should be reviewed by the teacher, administrator, and Occupational Health and Safety staff when appropriate, and changes put in place to prevent future injuries from happening to other students.

## Operations and Facilities

- Safe operating procedures for overall learning environment safety must be followed by everyone in the learning space.
- If a product used or stored in a learning space has a Safety Data Sheet (SDS), a paper copy of that SDS must be available in the learning space.
- All paints and finishes used or stored in Skilled Trades and Technology Education learning spaces must be water-based.
- Teachers in Production Technology Labs with dust collection systems must receive Dust Collection Operation and Maintenance training and are responsible for implementing the Dust Collection System Safety Program.
- Teachers engaging in hot work must ensure they are following the *Hot Work Procedure for Nova Scotia Public Schools (September 2022)*.
- All Production Technology Labs must be equipped with a lockout/tag out kit.

## Training, Testing, Certifications

- Students must receive safety training and provide evidence to their teacher of their knowledge of safe operating procedures before using any tools and machinery. Teachers and students are required to follow the [Safety-Net](#) training as a minimum standard. If a tool is not on the Safety-Net tool list, the student still needs to be provided safety instructions before they use the tool.
- Safety test records must be kept on file for a period of seven years. Safety test records associated with Incident Reports must be kept on file until three years after the student's 19<sup>th</sup> birthday.

## Other Considerations

- Skilled Trades and Technology Education teachers are strongly encouraged to maintain certification in First Aid and CPR, recognizing that other staff members in the school may also be certified depending on their region/board requirements. The minimum requirement for this certification is Intermediate First Aid with CPR-C.
- Skilled Trades and Technology Education teachers are strongly encouraged to maintain Workplace Hazardous Materials Information System (WHMIS) certification.

## Accountability

**The Department of Education and Early Childhood Development** is responsible for

- communicating these safety protocols to all RCEs and CSAP
- developing and maintaining learning resources supporting Skilled Trades and Technology Education learning spaces

**Regional Centres for Education and Conseil scolaire acadien provincial** are responsible for

- communicating these safety protocols to schools
- monitoring and ensuring the protocols are being followed
- supporting schools in ensuring tools and equipment are maintained and in safe operating condition
- ensuring teachers are competent and receive safety-related training and support, as required

**School administrators** are responsible for

- monitoring and ensuring these safety protocols are being followed in Skilled Trades and Technology Education learning spaces

**Teachers** are responsible for

- maintaining a safe work and learning environment, including ensuring first-aid kit remains fully stocked, tools and equipment are maintained and in safe operating condition, and all students have appropriate clothing and PPE
- communicating the need for equipment repair by authorized personnel
- adhering to equipment lockout/tag out procedures
- reporting student incidents
- providing required safety training to and ensuring students provide evidence of their knowledge of the safe operating procedures before using any tools and machinery
- adhering to and fulfilling roles and responsibilities as outlined in these protocols

**Students** are responsible for

- conducting themselves in a safe and responsible manner
- reporting any injuries to the teacher
- adhering to all safety protocols while participating in Skilled Trades and Technology Education courses, including wearing appropriate clothing and PPE

## References

Nova Scotia Department of Education and Early Childhood Development. 2022. *Hot Work Procedure: Nova Scotia Public Schools*. Halifax, NS: Province of Nova Scotia.

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Nova Scotia. 1996. *Occupational Health and Safety Act*. SNS, c. 7. <https://nslegislature.ca/sites/default/files/legc/statutes/occupational%20health%20and%20safety.pdf>.

Nova Scotia School Insurance Program. 2022. <https://sip.ca/>.

Canada. 2020. *National Fire Code of Canada*. Ottawa, ON: National Research Council. <https://nrc-publications.canada.ca/eng/view/ft?id=d77ca42c-caef-4769-930e-2eb618111c8e>.

## Inquiries

For further information regarding these safety protocols, contact Education Innovation, Programs, and Services, Nova Scotia Department of Education and Early Childhood Development, at 902-424-5745.

## Appendix: Personal Protective Equipment (PPE) Requirements

**Skilled Trades courses** require everyone in the room to be wearing required PPE while tools and equipment are in use. Additional PPE may be supplied and required depending on the course activities.

Skilled Trades 10 / Construction Trades 11	
PPE Required	Supplied By
Steel-Toe Safety Boots	School
*Safety Glasses	School
Hard Hat	School
High Visibility Construction Safety Vest	School
Hearing Protection ( <i>when required</i> )	School
Dust Mask ( <i>when required</i> )	School

\*safety glasses must be worn over prescription eyewear

Transportation Trades 11 / Manufacturing Trades 11	
PPE Required	Supplied By
Steel-Toe Safety Boots	School
*Safety Glasses	School
Hearing Protection ( <i>when required</i> )	School

\*safety glasses must be worn over prescription eyewear

Service Trades 10 / Culinary Trades 11	
PPE Required	Supplied By
Slip Resistant Food Service Footwear	Student/*School
Apron	School
Oven Gloves ( <i>when required</i> )	School
Disposable Vinyl Gloves ( <i>when required</i> )	School

\*supplied by the school when taught in a Skilled Trades Centre

**Technology Education courses** taught in a Production Technology Lab require everyone in the room to wear the required PPE while tools and equipment are in use. Additional PPE may be supplied and required depending on the course activities.

<b>Technology Education Courses in a Production Technology Lab</b>	
<b>PPE Required</b>	<b>Supplied By</b>
Closed-Toe Footwear	Student
*Safety Glasses	School
Hearing Protection ( <i>when required</i> )	School
Dust Mask ( <i>when required</i> )	School

\*safety glasses must be worn over prescription eyewear