Workplace Health and Safety 11

Guide

NOVA SCOTIA
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Workplace Health and Safety 11

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Contents

Introduction

Background

Workplace Health and Safety 11 is an open half-credit course designed to be offered at the grade 11 level. The purpose of this course is to build on knowledge about workplace health and safety already acquired in Healthy Living 9 and/or the in-school component of Co-operative Education 10.

Workplace Health and Safety 11 has two modules with the following suggested time allocations:

Module 1: Fundamentals of Workplace Health and Safety—30 hours

Module 2: Workplace Hazards—Awareness and Control—25 hours

The growing involvement of students in the workforce through programs such as Options and Opportunities and Co-operative Education has generated the need for study modules in workplace health and safety. Students entering the workplace to job-shadow or participate in work placements or apprenticeship programs, or entering full-time employment as young adults, need to know how to prevent workplace injuries or incidents from occurring.

Workplace Health and Safety 11 provides students with
- understanding of workplace health and safety rights and responsibilities
- knowledge about appropriate conduct in the workplace to prevent incidents or injury
- in-depth examination of Nova Scotia's *Occupational Health and Safety Act* and regulations made under the act
- understanding of the nature of workplace hazards and factors contributing to them
- basic knowledge of the components of WHMIS
- knowledge of various types of personal protective equipment and their use in preventing injury

In addition to factual knowledge about workplace health and safety, Workplace Health and Safety 11 seeks to encourage in students
- an attitude of concern for matters of health and safety, not just in the workplace, but in their homes and communities
- a commitment to the acknowledgment and promotion of health and safety as a key factor in the success of their present and future work lives
- a recognition of the relationship between their high school studies and health and safety issues in the workplace

Workplace Health and Safety 11 also encourages students to pursue additional health and safety studies outside the school in such areas as first aid, emergency

response, and WHMIS, for example, that can be added to their LifeWork Portfolios as certifications of their health and safety expertise and commitment to the prevention of incident or injury.

Teaching Workplace Health and Safety 11

Differentiation of Instruction

Instructional approaches should vary and be adapted in relation to the individual and diverse backgrounds and abilities of students in the classroom.

The teacher acknowledges variations in students' prior knowledge, readiness, language, learning styles and preferences, and interests and chooses from a variety of approaches, strategies, and resources to maximize each student's growth and individual success by meeting each student where he or she is and assisting in the learning process.

The teacher chooses to differentiate any or all of the following:
- the tasks' learning activities and resources through which the student may achieve the outcomes
- the processes, especially grouping options, through which students interact and work together as they develop knowledge of new content
- the requirements for student response to allow for a variety of means of expression, alternative procedures, degrees of difficulty, forms of evaluation, and types of scoring rubrics

Interactive Learning

Interactive learning is built on the premise that students learn best when they actively engage their minds and that they are more apt to be engaged when they interact with others. Through explicit teaching, modelling, and facilitated opportunities, teachers take the lead in guiding students to become effective learners through the use of focused and monitored interactive learning strategies.

Practice is student-centred and invites students to learn collaboratively with peers, teachers, and other connected partners, as well as to interact with various forms of text. Interactive learning strategies support student learning by expanding the teaching beyond the direct influence of the teacher, recognizing that learning can happen through other shared experiences that engage the active mind.

Assignments and tasks that allow students to interact with one another tend to increase student motivation and active engagement, which positively influence students' overall comprehension of content and skill development. When learning activities require them to interact with their environment, students are actively involved in the construction of meaning, in developing new skills, and in practising old ones.

The following describes a few strategies that put interactive learning into practice. Most require students to interact in small discussion groups. Research suggests that this can be more effective than open dialogue between the teacher and the whole

class where often only a small number of students participate while others remain uninvolved.

Front Loading—A pre-reading strategy in which student groups are given time to share their understandings of the key terms and background information helpful in comprehending an assigned text. Through teacher-led whole-class discussion, the terms and concepts are then clarified. This technique helps all students build prior knowledge, which facilitates linking to new learning.

Anticipation Guides—Asking student groups to predict main ideas before reading an assigned piece of text. This strategy
• engages students in focused conversation before reading to confirm what they already know and set their minds to making sound predictions
• provides a clear focus and purpose to the reading
• engages students in post-reading discussion that confirms or denies any predictions and generates questions for further inquiry

Learning Dialogues—Students organizing in groups to discuss key questions and voice their understandings and opinions.

Teacher-Student Conferences—Individual teacher-student conferences monitor and guide reading and writing development. A candid dialogue invites the student to discuss his or her assessment on how the learning is going. The teacher can then offer specific feedback that is both positive and sincere. Together, student and teacher can set one or two specific achievable goals and then discuss the type of support available.

"The Big Six"—Reading comprehension strategies that support readers as they aim to construct meaning and become aware of their understanding through interacting with text. These strategies are making connections, inferring, synthesizing, questioning, determining importance, and visualizing. Teachers could present focused mini-lessons that explicitly teach and model each strategy and then offer authentic opportunities for students to apply them.

Inquiry-Based Learning

The teacher engages students to work, alone or in groups, on a project of substantial length and complexity. The activity is characterized by the following:
• **Autonomy**—Students make their own decisions either individually or collaboratively.
• **Centrality**—The activity embodies and interrelates a series of outcomes and uses a range of resources.
• **Constructive Investigations**—Students develop and apply skills, acquire knowledge, and adopt positions in steps that progress toward a product.
• **A Driving Question**—Students are asked to provide a solution to a problem, question, or hypothesis that is central to the ideas or issues related to the discipline.
• **Realism**—The activity requires the use of authentic resources and works toward authentic results.

Project-based learning provides opportunities for a variety of learning styles; employs an orientation to authentic issues, settings, data, and resources; creates an environment where students are likely to take risks and experiment with ideas; requires the application of higher-order thinking skills; requires active rather than passive engagement with the environment; is accessible to all learners; encourages the use of a variety of modes of communication; enables performance-based assessment; makes students responsible for their own learning; emphasizes process as well as product; and encourages students to reflect on and learn from their mistakes and their successes.

Co-operative Learning

Co-operative learning creates an environment in which students learn actively by interacting with others, the data, and the teacher.

This approach provides opportunities for students to
- learn interdependence and team-work skills
- promote one another's successes and support group effort
- acquire group process skills, an important dimension of employability
- use higher-order thinking skills
- apply newly acquired knowledge and skills
- establish relationships with others

The co-operative learning model proposed by David and Roger Johnson and Edythe Holubec in *Circles of Learning*, 5th ed., 2002, is based on five basic elements:
- **Positive interdependence**—Success depends on the participation of all group members; each member's resources and role make his or her contribution unique.
- **Individual Accountability**—Each student's performance is assessed individually.
- **Group Processing**—Students reflect on their progress and make decisions to improve their individual and collective efforts when necessary; students look out for one another.
- **Social Skills**—Leadership, decision making, trust building, communication, and conflict management are key skills that must be learned before co-operative learning can succeed.
- **Face-to-Face Promotive Interaction**—Students promote one another's learning by helping, hearing, sharing resources, and encouraging and challenging one another's ideas.

The Teacher as Facilitator

Actively involving students in their learning by relating activities to their own experiences is important. Once an issue is selected, the teacher or student facilitator will provide compelling texts prior to or during the class that lead to discussion. The texts might be a novel, newspaper article, essay, art reproduction, etc. The facilitator can then pose a question requiring students to evaluate options and make decisions through discussion. The process does not guarantee that students will respect one another nor does it eliminate conflict; however, it should guide students to develop more respectful, tactful, and kinder attitudes and behaviours. Through systematic questioning of each other, they must consider different, often conflicting,

ideas. They will have to think deeply and critically about concepts, look at ethical quandaries, and develop moral principles while refining their critical-thinking skills. Through the process of co-operation, and active learning, students build self-esteem through development of competence. The facilitator must accept answers, develop follow-up questions, and keep track of the conversations, while listening intently and helping students make connections. Not only are students acquiring information in a different way, they are doing so at the high end of the thinking/reasoning process.

Among the multiple actions a teacher can take in his or her role as a facilitator are

add	debate	introduce	provide
arrange	define	invite	review
ask	display	lead into	share
assess	establish	link	summarize
collect	help	look for	use
convey	interconnect	make available	work with
create	interrelate	make up	

Gender Equity

Gender equity is concerned with the promotion of personal, social, cultural, and economic equality for all. The term **gender equity** emerges out of a growing recognition of the pervasive gender inequities in society. Continuing traditions of stereotypical and discriminatory practices have resulted in the systemic devaluation of females of all ages. Women may also face barriers of discrimination due to their racial identification, Aboriginal identity, ability/disability, sexual orientation, or other aspects of their identity. The negative consequences also adversely affect males.

The following are ways in which gender equity can be addressed in WHS 11:
- course content and resources that include the roles, contributions, and accomplishments of both males and females
- displays of portraits, photographs, and trophies that highlight the accomplishments of both males and females
- praise or criticism of both females and males and acceptance of female and male staff and student contributions as equally valid
- cessation of disparaging comments based on gender or sexuality
- assurance that both females and males have an equal share of the teacher's attention
- questions that ask both females and males to use analytical and synthetical processes, not just fact-based questions
- use of gender-neutral language, e.g., chair or chairperson instead of chairman; humankind, people, human beings, or humanity instead of mankind; staff or employees instead of manpower

Administrators and staff can

- develop an understanding of the issues of sexism and gender inequity by regular reading and professional development opportunities
- conduct regular reviews of personal practices in teaching, e.g., patterns of classroom interaction, teaching strategies
- use gender-neutral language and anti-sexist practices in the school or classroom
- recognize and address instances of bias in programs and courses, course content, and learning resources that aid inequities
- develop policies and guidelines that address gender equity

Gender equity encourages fuller participation of female and male teachers and students in school and classroom interaction. It increases the self-worth and potential of all students. It helps in the removal of stereotypical views and in the removal of sexism and sex discrimination in society. Gender equity provides society with the benefit of the full participation and contribution of *all* its members.

Multiculturalism

Throughout the Workplace Health and Safety 11 curriculum, there are numerous learning opportunities for students and suggestions for teachers to reflect on the multicultural learning, living, and working environment found throughout Nova Scotia, the Maritimes, and other parts of Canada.

The learning opportunities for students, suggestions for teachers, and references to resource materials throughout the document are designed to encourage all learners to
- empathize both with members of their own families and with others whose cultural and racial heritage and family style are different from their own
- respect cultural and racial differences among contemporary Canadian families
- be aware of the variety of family traditions and lifestyles represented in Canada, as manifested in the range of values and ideologies within the multicultural and multiracial mosaic of Canadian society
- appreciate the ways in which individuals and families are socialized in Canadian society
- understand the ways in which the family traditions of an individual's particular culture or race are an important component of his or her family life

Outcomes

Essential Graduation Learnings and Workplace Health and Safety 11

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

Some examples of learning in Workplace Health and Safety 11 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.

• Strategies for learning and teaching in both modules provide students with opportunities to appreciate the arts in presenting workplace health and safety information and to create their own health and safety products using the arts.

Citizenship

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

Students will be expected to

1.1 identify the characteristics of a healthy work environment and recognize the impact of unsafe work practices

1.2 identify the impact of interpersonal relationships on workplace health and safety and demonstrate strategies for appropriate interaction

1.3 demonstrate and apply understanding of the major components of the *Nova Scotia Occupational Health and Safety Act* and regulations, including employer and worker rights and responsibilities for workplace health and safety

1.4 apply learnings about healthy and safe work environments to their homes and schools

Communication

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

Students will be expected to

1.4 apply learnings about healthy and safe work environments to their homes and schools

2.1 demonstrate understanding of the five main types of workplace hazards and their four main contributing factors

2.3 demonstrate understanding of hazard control, including the role of reporting and personal protective equipment (PPE)

Personal Development

Graduates will be able to continue to learn and to pursue an active, healthy lifestyle.

Students will be expected to

1.5 show commitment to a culture of workplace safety and recognition that injury is preventable

2.5 show strategies for safe and effective response to workplace hazards and emergency situations through exercising safety rights and responsibilities

Problem Solving

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

Students will be expected to

2.4 show understanding of root cause analysis to identify workplace hazards and investigate workplace incident and injury

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.

Students will be expected to

2.2 demonstrate understanding of each of the three components of WHMIS—training, labels, and Material Safety Data Sheets (MSDS)—through activity-based application to at least one type of workplace

2.3 demonstrate understanding of hazard control, including the role of reporting and personal protective equipment (PPE)

Workplace Health and Safety 11 Curriculum Outcomes

Module 1: Fundamentals of Workplace Health and Safety

Students will be expected to apply the knowledge, skills, attitudes, and awareness needed to identify healthy workplaces, to make informed decisions about safety risks in the workplace, and to initiate appropriate action.

Students will be expected to

1.1 identify the characteristics of a healthy work environment and recognize the impact of unsafe work practices

1.2 identify the impact of interpersonal relationships on workplace health and safety and demonstrate strategies for appropriate interaction

1.3 demonstrate and apply understanding of the major components of the *Nova Scotia Occupational Health and Safety Act*, including employer and worker rights and responsibilities for workplace health and safety

1.4 apply learnings about healthy and safe work environments to their home and school

1.5 show commitment to a culture of workplace safety and recognition that injury is preventable

Module 2: Workplace Hazards—Awareness and Control

Students will be expected to apply the knowledge, skills, and attitudes needed to identify and appropriately respond to workplace hazards.

Students will be expected to

2.1 demonstrate understanding of the five main types of workplace hazards and their four main contributing factors

2.2 demonstrate understanding of each of the three components of WHMIS—training, labels, and Material Safety Data Sheets (MSDS)—through activity-based application to at least one type of workplace

2.3 demonstrate understanding of hazard control, including the role of reporting and personal protective equipment (PPE)

2.4 show understanding of root cause analysis to identify workplace hazards and investigate workplace incident and injury

2.5 show strategies for safe and effective response to workplace hazards and emergency situations through exercising safety rights and responsibilities

Course Design and Components

Features of Workplace Health and Safety 11

Workplace Health and Safety 11 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 identifying potential safety risks in the workplace and initiating appropriate action
- a strong connection to the community and workplace with a focus on using real-world 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
- a flexible design framework based on learning modules

Key Concepts in Workplace Health and Safety 11

Workplace Health and Safety 11 is designed to ensure that students
- develop skills to identify safe work practices and recognize potential safety hazards, skills that they will be able to apply at home, in school, and in the community
- learn about their rights as well as their responsibilities for safety in the workplace
- understand the application of government legislation and regulations to the workplace, the potential impact of unsafe workplaces, and how to assess the need to take action

Credit

Workplace Health and Safety 11 requires a minimum of 55 hours instructional time. By achieving outcomes prescribed for the two modules, students will earn one half-credit. The course code is 149104. The course type is "open."

Components

The curriculum for Workplace Health and Safety 11 is divided into two modules, with each module organized by outcomes that describe what students are expected to know, be able to do, and value by the end of the course. Outcomes are not necessarily sequential.

Suggestions for Assessment

Each module begins with a summary of suggestions for assessing students' success in achieving the outcome. They are linked to the outcome rather than to the Suggestions for Learning and Teaching. The suggestions indicate the knowledge, attitudes, and behaviours students need to demonstrate to show achievement of the outcome, as well as offering ways teachers can assess student learning. The range of suggestions offers opportunities for teachers, and students, to collect information about how well students have achieved the outcomes and, additionally, to determine which concepts require further instruction in order for students to be successful. For more information, read the section Assessing and Evaluating Student Learning.

Suggestions for Learning and Teaching

The suggestions for learning and teaching are intended to offer a range of strategies from which teachers and students may choose. Some learning experiences are sufficiently rich and complex that students will be able to achieve or partially achieve a number of outcomes. Learning experiences may be used in various combinations to help students achieve an outcome or outcomes. It is not necessary to use all of the suggestions, nor is it necessary for all students to engage in the same learning experience.

Resources/Notes

Classroom resources are available from the Authorized Learning Resources database. This section includes suggestions for materials available from a variety of sources. Where possible, teachers should use community, Nova Scotian, or Canadian resources. A number of the resources are provided by the Workers' Compensation Board of Nova Scotia in the *Community-Based Learning Workplace Health and Safety Resource for Educators* (hereafter refered to as the resource CD) and made available to schools offering Workplace Health and Safety 11 and related courses. The resource CD contains WCBNS-owned videos, or instructions for accessing them, as well as information supporting Suggestions for Learning and Teaching.

The Internet also provides information and research opportunities, and website names are provided for most outcomes. Because of the transient nature of some websites, only names and not URLs are provided in this document. Teachers can enter the name of the website into a search engine, which in most cases will bring up the appropriate site, or they can refer to the Department of Education Learning Resources and Technology website for the URL must. Teachers must preview all websites before referring students to them.

Notes may include elaborations on strategies, suggestions for other sources of strategies, successes, cautions, and definitions.

Course Delivery

Workplace Health and Safety 11 should be offered in the following sequence:
Module 1: Fundamentals of Workplace Health and Safety
Module 2: Workplace Hazards—Awareness and Control

Module 1: Fundamentals of Workplace Health and Safety

Module 1: Fundamentals of Workplace Health and Safety

Unifying Concept

Students will be expected to apply the knowledge, skills, attitudes, and awareness needed to identify healthy workplaces, to make informed decisions about safety risks in the workplace, and to initiate appropriate action.

1.1 Students will be expected to identify the characteristics of a healthy work environment and recognize the impact of unsafe work practices.

Suggestions for Assessment

Teachers can use
- journal reflections
- learning logs
- rubrics assessing group or class discussion
- true or false statements about work environments or work practices
- displays of written or visual products to determine student understanding and appreciation of potential consequences of unsafe workplace practices (See Resources/Notes and Appendix A: Assessment Tools.)

Students will be able to
- describe the healthy workplace
- distinguish between healthy and unhealthy procedures and practices
- identify positive and negative health and safety elements in workplace case studies (See Resources/Notes.)

Suggestions for Learning and Teaching

Teachers can
- initiate discussion and use workplace case studies to increase student awareness (See Resource/Notes and Appendix B: Case Studies for sample case studies.)
- invite one of the following into the classroom to speak about workplace health and safety matters and answer students' questions:
    - local employers and workers, especially those who are health and safety committee members for their workplaces
    - local union representatives
    - officers from the Occupational Health and Safety (OHS) division of the Department of Labour and Advanced Education
    - WCBNS (Workers' Compensation Board of Nova Scotia) representatives
    - injured workers willing to share their experiences
    - other interested community members

- initiate a discussion in which students describe their own work experiences and share personal stories about workplace safety
- provide the statement "Young workers are more likely than other workers to be injured at work" and ask students to brainstorm the reasons why this statement is true
- provide students with youth injury statistics from the WCBNS website and/or information sheet (see the WCBNS resource CD):
  - What does the data say about injury rates for young workers?
  - How could the data be explained? What are some implications of the data?
  - Are younger workers treated differently? Could this influence injury?
  - What impact can worker and supervisor inexperience have on worker safety?
  - How may young workers' level of self-confidence influence their safety?

Students can

- complete a K-W-L chart, either individually or as a group, to introduce the topic of workplace health and safety; discover what they know or believe about workplace health and safety, and following the completion of the course revisit their chart to
  - complete the final column, outlining what they have learned
  - determine how accurate their ideas about workplace health and safety were
  - determine whether they acquired the information they were looking for (See Appendix C: WHS K-W-L Chart.)
- view and respond to the content of
  - the video *Are You in Danger?*
  - the video *WCBNS 2008 Day of Mourning Vignettes: The Lapierre Family*
  - the website *LifeQuilt*
    (See Resources/Notes for information about the videos and website and additional suggestions for use.)
- complete an online activity that helps students discover how informed they are about health and safety (See Resources/Notes.)
- in small groups, participate in a carousel activity exploring the larger implications of workplace incidents, injuries, and fatalities in terms of the impact on co-workers, family, neighbours, community, and the health-care system (See Appendix D: Carousel Activities.)
- create illustrations to show increasing awareness and understanding of the human cost of workplace incidents, injuries, and fatalities
- brainstorm the costs they think are associated with unsafe work practices and compare results with the table in the resource binder

Resources/Notes

📖 Notes

- Many of the resources listed below and in subsequent Resources/Notes sections can be found in *Community-Based Learning Workplace Health and Safety Resource for Educators*, which is made available by WCBNS.
- Several online sites exploring knowledge of workplace health and safety are sponsored by WCBNS. See the contents section of the resource CD.

- Students can also collect anecdotal information about workplace injuries and fatalities from their families or communities and write brief case study narratives to create an archive of material for class discussion.
- Potential consequences of unsafe workplace practices are further defined in the WCBNS resource binder:
  - worker injury, disability, or death
  - potential harm to the public
  - negative effect on the community
  - economic losses for the employer
- Positive and negative health and safety elements in workplace case studies include
  - workplace practices and procedures involving use of equipment, such as tools and machines
  - behaviours and attitudes of workers and employers in relation to workplace safety and personal well-being
  - use, misuse, or lack of appropriate safety equipment and personal protective equipment
  - proper clothing and footwear for the job
  - provision of properly set-up and maintained workstations
- Prior to viewing videos or the website, ask students if they have ever felt in danger in a work situation.
  - How did they feel?
  - Did they express their concerns for their safety?
  - Did they feel they could express concerns for their safety?
  - If so, how were their concerns received?
- Post-viewing reflection and/or discussion could focus on
  - the causes of the injuries to the young workers
  - the effect on their lives and those of their families
  - the effect on their employers' businesses
  - what the employers should have done to prevent the injuries
  - what the employees should have done

▶ Videos/CDs (See resource CD and http://worksafeforlife.ca.)

- *Are You in Danger?* This video from Human Resources and Skills Development Canada (HRSDC) discusses workplace health and safety rights and responsibilities through real-life stories of three young women injured on the job. Teachers may wish to preview for content. Video is available in French and English.
- *WCBNS 2008 Day of Mourning Vignettes: The Lapierre Family.* A few years out of high school, Jamie Lapierre, of Sackville, Nova Scotia, was killed on the job. His family and friends describe the impact of his death.
- *Lost Youth: Four Stories of Injured Young Workers.* This video from WorkSafe BC is not approved for listing in Authorized Learning Resources by Nova Scotia Department of Education because of concerns about vulgarity, gender bias, and disturbing content. Nonetheless, the video presents a powerful message. Teachers wishing to use it must preview it and notify parents/guardians and students about these concerns. Students must have written parental approval to view the video. Content is in English only. Available in VHS/CD.

- *Community Based Learning: A Workplace Health and Safety Resource for Educators.*
- *The Supervisor.* This documentary-style drama from WorkSafe BC examines supervisor responsibility for safety through the consequences of a fictionalized workplace fatality of a young worker. Teachers should preview the video for emotional and some disturbing content. Available in VHS/CD.

🌐 Websites

- *LifeQuilt*—memorial to young workers killed or seriously injured at work
- *Young Workers, Nova Scotia WCB.*—a WCBNS website for youth workers' safety
- OHS division of The Nova Scotia Department of Labour and Advanced Education—monitors and enforces Nova Scotia's *Occupational Health and Safety Act* and regulations for all workers and employers in Nova Scotia
- Workers Compensation Board of Nova Scotia website (home page)—a safety and insurance agency that works to prevent workplace injury and illness and provides support to workers and employers to achieve safe return to work
- *WCBNS Work Safe for Life*—an interactive website for workers, employers, educators, and learners housing a variety of health and safety teaching and learning resources
- *WorkSafeBC*—provides additional print and video resources for download; materials cross all aspects of workplace health and safety

📄 Additional Information Sources

- *The Cost of Workplace Injury*—a resource sheet focusing awareness on both direct, measurable costs of injury (fixing broken machinery, suturing wounds in emergency rooms) and indirect costs (missing the senior prom, not being able to drive the car), as well as the gravest cost of all—loss of life (See resource CD.)
- *Occupational Health and Safety Act* and regulations and Labour Standards Code: Nova Scotia Department of Labour and Advanced Education (See resource CD.)
- *Expanding Your Horizons: Career Development Guide*—contains sections on workplace safety
- *Live Safe! Work Smart!: Resources for Cooperative Education and Other Forms of Experiential Learning*—a resource produced by the Ontario Government for Ontario's school system that has some useful activities, including case studies, applicable to WHS 11; can be downloaded in PDF format from the *Live Safe! Work Smart!* website
- Private non-profit health and safety agencies that provide safety training and information programs for public school students and teachers, including:
  - St. John's Ambulance

1.2 Students will be expected to identify the impact of interpersonal relationships on workplace health and safety and demonstrate strategies for appropriate interaction.

Suggestions for Assessment

Teachers can use, for example,
- teacher-student interviews
- journal responses to teacher prompts
- rubrics assessing group or class discussion
- written and visual artifacts
- oral presentations to assess student awareness of appropriate and safe interpersonal relationships and communication in workplaces, including
  - professionalism and appropriate language
  - sensitivity to co-workers and customers
  - awareness of worker rights regarding, for example, workplace violence, sexual harassment
  - safe and effective conflict management
  - awareness of factors that can influence behaviour

(See Appendix A: Assessment Tools.)

Students can
- present observations of their own or others' workplace experiences through creative writing and drawing
- submit learning logs and journals documenting their workplace experiences
- design and present awareness posters
- write and present short plays or tableaus
- create media products such as slide shows, videos, and web pages

Suggestions for Learning and Teaching

Teachers can
- present examples or case studies of workplace incidents and/or injuries for students to identify and discuss interpersonal communication and relationship issues that influenced each situation (See Appendix B: Case Studies.)
- introduce concepts of personal values and workplace ethics and etiquette as factors influencing worker health and safety (See Resources/Notes.)
- introduce the idea of acknowledging, managing, and resolving interpersonal conflict, including
  - the results of constructive and non-constructive criticism
  - students' prior experiences in dealing with conflict
  - student examples of appropriate methods of conflict resolution
  - the effect of appropriate conflict resolution on worker health and safety (See Resources/Notes.)
- introduce the concept of inclusion as a workplace safety issue (See Resources/Notes.)

- lead a discussion about the interpersonal challenges that workers, both young and experienced, face when going to a new job, and how they can respond appropriately

Students can
- in small groups, examine the role of stress in creating hazardous conditions, focusing on
  – the causes of stress
  – the difference between positive and negative stress
  – conditions and attitudes that determine whether stress is positive or negative
  – how stress can influence workplace health and safety
  – how stress is influenced by interpersonal communication and relationships
  – the effect of changing trends and technology on workplace stress and workplace safety
  – how behaviour is influenced by stress
  – how stress can be managed in a healthy manner
- write a letter to a local politician or publication discussing ways in which workplaces (specifically where youth most commonly work) could be safer and healthier
- design and present role-plays that show how to talk to
  – parents/guardians about situations at work that make them uncomfortable or unsafe
  – workplace supervisors about job situations that make them, or a co-worker, uncomfortable or unsafe, including possible solutions
- in small groups, explore the concept of attitude,
  – discussing what contributes to our personal attitudes (for example, social conditions, family values, experiences)
  – writing or creating poems, short stories, songs, role-plays, posters, or videos that depict how our attitudes, and those of co-workers, can affect our feelings of well-being and safety at work
  – creating visuals (posters, cartoons) to define what attitude can look like
- write and present role-play scenarios showing
  – positive interpersonal communication and conflict resolution
  – a supervisor requiring a worker to perform a task that conflicts with his or her personal values and ethics or workplace values and ethics
  – how a strong sense of workplace ethics can prevent workplace injury
  – how to advise a friend who is at a difficult workplace about what to do and whom to call
  – worker concerns about safety in a specific workplace, whether they have what they need to safely complete tasks or their right to refuse unsafe work
  – examples of both appropriate and inappropriate conversations about workplace health and safety issues on the part of supervisors, workers and co-workers, and customers
  – examples of professional and unprofessional workplace behaviour
- create an ethics statement for a business (See Appendix E: Creating an Ethics Statement.)

Resources/Notes

🔲 Notes

- *Expanding Your Horizons: Career Development Guide,* Second Edition (1999) provides useful information/strategies for
  - effective conflict resolution—see Chapter 9: Mediation, Negotiation, and Legislation, and *Expanding Your Horizons: Career Development Guide, Teacher's Resource* for this text, pp. 96–97, for additional activities
  - workplace and employee values and ethics—see Chapter 14: Ethics in the Workplace, and *Expanding Your Horizons: Career Development Guide, Teacher's Resource*, pp. 130–133, for additional activities
  - communication—see Chapter 5: Effective Communication
- Teachers need to be sensitive to individual student circumstances when discussing inclusion issues, for example, gender, sexual orientation, visible minorities, religion, physical or mental challenges, and first language.

🌐 Websites

- *LifeQuilt*—memorial to young workers killed or seriously injured at work
- *Young Workers, Nova Scotia WCB.*—a WCBNS website for youth workers' safety
- OHS division of The Nova Scotia Department of Labour and Advanced Education—monitors and enforces Nova Scotia's *Occupational Health and Safety Act* and regulations for all workers and employers in Nova Scotia
- Workers Compensation Board of Nova Scotia website (home page)—a safety and insurance agency that works to prevent workplace injury and illness and provides support to workers and employers to achieve safe return to work
- *WCBNS Work Safe for Life*—an interactive website for workers, employers, educators, and learners housing a variety of health and safety teaching and learning resources
- *WorkSafeBC*—provides additional print and video resources for download; materials cross all aspects of workplace health and safety

1.3 Students will be expected to demonstrate and apply understanding of the major components of the Nova Scotia Occupational Health and Safety Act and regulations, including employer and worker rights and responsibilities for workplace health and safety.

Suggestions for Assessment

Teachers can assess
- written reflections about aspects of the *Occupational Health and Safety Act* and regulations
- teacher-student interviews about student understanding of their rights and responsibilities
- student role-plays demonstrating safety rights
- visual arts products using
  - rubrics
  - pre- and post-tests
  - checklists

(See Appendix A: Assessment Tools.)

Students will demonstrate understanding of
- their key right to
  - know about anything that could affect their health and safety in the workplace
  - participate in making the workplace safer
  - refuse work that they think may hurt them or someone else
- protection that they are entitled to against discrimination for exercising their rights
- precautions and/or duties to be performed by employers and others who contribute in some way to the workplace, for example, subcontractors, messengers, delivery personnel
- the requirement for businesses to have health and safety policies and programs and safety committees (or representatives) and their roles and responsibilities
- legal consequences for employers and workers of not following Nova Scotia safety law
- requirements for employers to report certain types of workplace incidents, injuries, or fatalities, including proper procedures in the event of incidents
- what *OHS Act* information must be posted in workplaces
- responsibility of both employers and employees to maintain a safe and healthy workplace

Suggestions for Learning and Teaching

Teachers can
- introduce Nova Scotia's *Occupational Health and Safety Act*, providing an overview of its sections
- explore the historical context of Nova Scotia's OHS law (See Resources/Notes.)

- present information about regulatory or monitoring agencies in workplace safety, including
  - the OHS division of the Nova Scotia Department of Labour and Advanced Education
  - the Labour Board
  - the Workers' Compensation Board of Nova Scotia
  - the Office of the Fire Marshal
- present the history and purpose of the Internal Responsibility System as the guiding principle of Nova Scotia's *OHS Act* (See Resources/Notes.)
- emphasize that, under workplace safety legislation, all workers are protected from discrimination when exercising their safety rights
- lead a discussion in which the difference between rights and responsibilities is clearly articulated and understood by students
- introduce the topic of workers' rights by describing a time and place that held values different from those we take for granted today, for example, reading an excerpt from a historical account, historical novel, or current news story that describes a workplace situation in which health and safety practices would be considered unacceptable by current standards
- explore and discuss the historical and current roles of unions and labour groups in workplace safety

Students can
- in groups, research sections of the act (or a regulation) to complete a matrix (see Appendix F: Rights and Responsibilities) with what they learn about employer and employee rights and responsibilities and present to the class for discussion. The following sections are suggested:
  - Section 13—Employers' Precautions and Duties
  - Section 17—Employees' Precautions and Duties
  - Section 28—Requirement for OHS Program
  - Sections 29 and 31—Requirements for Joint OHS Committees
  - Section 43—Right to Refuse Work
  - Sections 45 and 46—Prohibition of Discriminatory Action
- prepare and present an information pamphlet or slide show about one of the regulations under the *OHS Act* (See Resources/Notes.)
- research information about other Nova Scotian acts that relate to the *OHS Act*, such as the *Health Act*
- design and present an advertising campaign (poster, pamphlet, newscast, web page) that
  - makes young workers aware of their workplace safety rights and responsibilities
  - makes employers aware of their workplace safety responsibilities
  - shows links between attitude, behaviour, and workplace safety (See Resources/Notes.)
- write and present role-plays showing how they would exercise their three key workplace safety rights in specific workplaces
- research appropriate procedures for reporting a workplace incident, injury, or fatality to the OHS division of the Department of Labour and Advanced Education and/or the Workers' Compensation Board

- brainstorm a procedure for filing a complaint or concern to a supervisor about a health or safety matter
- view the WorkSafe BC video *The Supervisor* and, prior to viewing,
  - brainstorm as a class the challenges experienced by supervisors, especially young supervisors, in meeting their workplace responsibilities
  - contribute their own workplace experiences as supervisors, if any, noting how they exercised their rights and responsibilities as supervisory workers
- view WCBNS advertising videos at http://worksafeforlife.ca and discuss how proper supervision and the exercise of safety rights and responsibilities could have prevented the incidents portrayed
- write in their journals about their understanding of their own rights and responsibilities as young workers in workplaces

Resources/Notes

📋 Notes

- Employers' workplace safety rights and responsibilities are, for example, to
  - maintain a safe and healthy workplace
  - ensure employees have proper training to do their jobs safely
  - keep and maintain safe equipment with protective guards in place
  - inform employees of hazards and how to protect against them
  - tell workers what personal protective equipment must be used
  - instruct workers in emergency procedures such as the location of fire exits and first-aid facilities or how to deal with hostile or violent persons
  - act on reports of hazards and unsafe conditions
- Workers' legal rights and responsibilities are, for example, to
  - work safely
  - follow safe work guidelines and procedures
  - use safety equipment, including personal protective equipment
  - use machinery and equipment properly
  - report hazards and unsafe acts and conditions to their supervisor
  - refuse work that may hurt them or someone else
  - ask for proper training when they aren't sure of correct procedures
  - inform their supervisor of any reason why they may not be able to complete tasks safely
  - follow proper protocols in emergency situations
  - offer solutions to workplace health and safety problems
- These are some of the regulations under the *OHS Act*. For a full list go to the Registry of Regulations home page on the Nova Scotia government website:
  - Blasting Safety Regulations
  - Disclosure of Information Regulations
  - Fall Protection and Scaffolding Regulations
  - Occupational Diving Regulations
  - Occupational Health Regulations (listed under the *Health Protection Act)*
  - Occupational Health and Safety Appeal Panel Regulations
  - Occupational Health and Safety First Aid Regulations

– Occupational Safety General Regulations
– Temporary Workplace Traffic Control Regulations
– Underground Mining Regulations
– Violence in the Workplace Regulations
– Workplace Hazardous Materials Information System Regulations

▶ Videos/CDs (See resource CD and http://worksafeforlife.ca.)

- *Community-Based Learning: A Workplace Health and Safety Resource for Educators* WCBNS CD
- *The Supervisor* WorkSafeBC video
- view WCBNS advertising videos at http://worksafeforlife.ca

🌐 Websites

- Association of Workers' Compensation Boards of Canada—contains young worker statistics under the Resources link, as well as comparative statistics for all provinces and territories under Key Statistical Measures
- Canadian Agricultural Safety Association
- Canadian Centre for Occupational Health and Safety website resources
- Canadian Labour Congress—brings together Canada's national and international unions, the provincial and territorial federations of labour, and 130 district labour councils as the country's largest democratic agency for worker quality of life
- Court Decisions Database—provides transcripts of all workplace health and safety cases that go to court
- "Dying for a Job," CBC News Indepth: Workplace Safety—Contains the results of a three-year investigative study of Canada's workplace safety and a useful history time line of workplace safety events in Canada
- Human Resources and Skills Development Canada (federal workplace safety law)—teachers and students exploring federal workplaces should explore this site's links to the Canada Labour Code and Occupational Health and Safety regulations
- Internal Responsibility System (IRS)—United Transportation Union report: Internal Responsibility System; Ham Report (www.utubc.com/ham.htm)
- Nova Scotia Farm Health and Safety Committee
- Nova Scotia Federation of Labour—a provincial umbrella organization of unions and labour groups; represents the interests, including social justice and workplace safety, for union and non-union workers in Nova Scotia
- Nova Scotia House of Assembly, Legislative Counsel Office—provides access to Statutes of Nova Scotia and a database of acts with their regulations
- OHS History—OHS division of the Nova Scotia Department of Labour and Advanced Education (also contains a link to the Report of the Royal Commission of Health and Safety of Workers in Mines)
- Westray Inquiry: Nova Scotia Government (www.library.ns.ca)
- Westray Inquiry: St. Francis Xavier University Library—a source of transcripts of the hearings (library.stfx.ca)

- Women in Trades and Technology National Network—an education and advocacy organization dedicated to promoting and supporting women working in trades, technology operations, and blue collar work across Canada
- Workers' Compensation Board of Nova Scotia website

Other Information Sources (See resource CD.)

- Nova Scotia Department of Labour and Advanced Education: *Occupational Health and Safety Act*, regulations, and labour standards legislation

1.4 Students will be expected to apply learnings about healthy and safe work environments to their home and school.

Suggestions for Assessment

Teachers can assess
- teacher or student interviews and casual classroom conversation
- journal reflections
- group or class discussion about safe work environments
- visual arts products
- ability to identify work spaces in their home (kitchen, garage, workshop, backyard, furnace room) and school (laboratories, classrooms, hallways, gym, playing field) where they practise safe and healthy work habits
- demonstration of how they will improve work habits to reduce the chance of injury
- use students' written reflections and learning logs for indications of change and improvement in their workplace health and safety habits

(See Appendix A: Assessment Tools.)

Suggestions for Learning and Teaching

Teachers can
- lead a class discussion about the level of general workplace health and safety knowledge practised by their peers and family members in their homes, schools, and communities
- provide students with instruction in designing a Home Safety Survey (See Resources/Notes.)

Students can
- design and complete a Home Safety Survey of spaces such as kitchens, bathrooms, bedrooms, living rooms, family or recreation rooms, or basements to determine
    - whether hazardous materials and products are properly used and stored
    - whether home safety equipment such as fire extinguishers and safety glasses are properly stored and maintained
    - whether tools and equipment are properly used, maintained, and stored
    - what improvements could be made to improve the safety of these spaces
    - how well instructed family members are in the safe use and maintenance of tools and safety equipment they use
- design and deliver a similar survey for their school's work spaces such as classrooms, labs and tech shops, gymnasium, kitchens, cafeterias, common areas, and libraries and present the results to the school's administration, maintenance coordinator, or Joint Occupational Health and Safety Committee
- write a reflection based on results from any of the surveys, in which they
    - critically examine their personal safety practices and those of others
    - prepare an action plan for improving health and safety awareness and compliance

Resources/Notes

📓 Notes

- Preparation of the Home Safety Survey requires students to understand the need to construct unambiguous questions that are respectful of survey subjects and fully explore the survey topic. Students should consider the following:
  - Which questions can be asked?
  - How should they be constructed? Are they yes or no questions, or do they follow a Likert Scale format?
  - How should the survey be scored?
  - How will confidentiality of participants and data be preserved?
  - How should results be prepared for general viewing?
- Teachers can direct students to
  - sample surveys for information to help them construct their own surveys
  - conduct an Internet search using the following search words: sample, workplace, safety, hazard, and assessment (See also the resource CD Contents or Hazard ID sections.)
- Teachers need to encourage students to be thoughtful in their choice of survey subjects in order to attain results that are valid. A cross-section of community and family members is appropriate if the survey is to be conducted outside their own household.

1.5 Students will be expected to show commitment to a culture of workplace safety and recognition that injury is preventable.

Suggestions for Assessment

Teachers can use
- teacher or student interviews
- visual products depicting workplace health and safety themes
- journals and learning logs
- checklists and/or rubrics to assess students' oral contributions in class discussions about workplace safety
- students' reports about their work at home and/or part-time jobs that show
  - attention to supervisors' instructions
  - proper and safe use of equipment, for example, machines and tools
  - completion of tasks in a safe manner
  - a positive learning attitude toward safety
  - proper and safe dress and footwear
  - proper use of personal protective equipment
- certificates of achievement from external organizations that acknowledge student learning about health and safety applications

Teachers can also present students with certificates or other documents that provide a record of the workplace health and safety topics covered in WHS 11 (see Appendix A: Assessment Tools).

Suggestions for Learning and Teaching

Teachers can
- lead a student discussion about the concept of a culture of safety:
  - How can culture of safety be defined?
  - What does a culture of safety mean for the community? The workplace?
  - What attitudes and behaviours must change for a culture of safety to become widespread?
  - What kinds of attitudes toward workplace incident and injury are encouraged when the word accident is used to label them?
  - What kinds of information does the public need in order to be more informed and concerned about workplace safety?
  - What are effective ways to deliver that information to the public?

Students can
- learn about how local businesses promote a culture of safety by
  - interviewing the person(s) responsible for their workplace health and safety
  - collecting news items concerning workplace health and safety from local media and present their findings to the class
- in small groups, brainstorm and record on chart paper for class discussion ways in which they can personally contribute to a culture of safety in their part-time, or future, workplaces

- create short role-plays, slide shows, or videos depicting the importance to workplace health and safety of
  - working with proper rest and nutrition
  - conducting themselves in a professional manner and not engaging in horseplay, practical jokes, or inappropriate language
  - dressing appropriately for the workplace
- create a safety award program for businesses, considering the following:
  - What must they do to be eligible for the award?
  - What items should be on a checklist of measures they must meet to prove their safe and healthy workplace practices?
  - What will the program be named?
- design a prize or certificate and present it to the class or small group, along with a brief description of the business and what was done to win the prize
- design a Welcome to Your Safe Workplace! brochure or booklet for new workers in, for example, a grocery store, fast food restaurant, coffee shop, movie theatre, service station, dairy farm, fishing boat, clothing store, day care, or yard work firm, including
  - what the workplace is doing to ensure safe and healthy work
  - how workers and employers benefit by respecting one another and their health and safety
  - what workers and employers need to do to keep themselves and others safe on the job
- take on the role of a worker injured or killed on the job (or his or her supervisor or employer, family member or spouse, girlfriend, boyfriend, or partner) and create and present a short monologue, or write a reflection, showing
  - what the emotional, physical, and social consequences of workplace injury and death are
  - how the injury or death could have been prevented (See Resources/Notes.)
- design a print campaign to move viewers from the belief that workplace injury is expected as part of the job to the attitude that workplace injury is unacceptable and preventable; ask permission to post on school, public, or business bulletin boards
- create posters for improving workplace health and safety and display them on school bulletin boards
- create health and safety messages for daily school announcements

Resources/Notes

📋 Notes

- When assigning activities or discussing in class situations where workers were seriously injured or died as a result of injuries on job sites, teachers need to be sensitive to the circumstances of individual students who may have lost a family member to, or have a family member who was critically injured or disabled by, a workplace incident. While these students may have unique experiences to contribute, they should be permitted to do so only if they wish.

▶ Videos/CDs (See resource CD and http://worksafeforlife.ca.)

- *Are You In Danger?*
- *Day of Mourning Vignettes: The Lapierre Family*
- *The Supervisor*
- WCBNS videos at worksafeforlife.ca

🌐 Websites

- Young Workers, Nova Scotia WCB website
- *LifeQuilt* website, http://209.112.5.171/index.htm

📄 Other Information Sources

- Nova Scotia Department of Labour and Advanced Education: *Occupational Health and Safety Act*, regulations, and labour standards legislation

Module 2: Workplace Hazards—Awareness and Control

Module 2: Workplace Hazards—Awareness and Control

Unifying Concept

Students will be expected to apply the knowledge, skills, and attitudes to identify and appropriately respond to workplace hazards.

2.1 Students will be expected to demonstrate an understanding of the five main types of workplace hazards and their four main contributing factors.

Suggestions for Assessment

Teachers can use
- pre- and post-tests
- teacher-student interviews
- journal reflections
- group or class discussion
- rubrics for creative arts-based products, presentations, plays, and role-plays (See Appendix A: Assessment Tools.)

Students will demonstrate understanding of the
- classes of workplace hazards (biological, chemical, ergonomic, physical, and psycho-social), their definitions, and examples
- the four main contributing factors (environment, equipment, materials, and people) as they apply to a range of workplaces

Suggestions for Learning and Teaching

Teachers can
- present information to students about
  - the five main types of workplace hazards
  - the four main factors contributing to workplace hazards
- encourage students to consider workplaces they may be unfamiliar with, as well as ones they know about from personal experience or the experience of others

Students can
- participate in a carousel activity and subsequent class discussion in which they generate examples of
  - the five main types of workplace hazards
  - the four contributing factors to workplace hazards (See Appendix D: Carousel Activities.)
- make and post lists around the classroom of the kinds of objects, attitudes, behaviours, and equipment that can pose hazards in the workplace

- create collages, posters, or murals displaying samples of workplace hazards to
  - identify the hazards
  - match the hazards to a type of work or workplace
- choose a location not generally thought of as a workplace (home, social setting such as a party, or recreational location such as a rink, library, or theatre) and design a visual or write a description that
  - depicts the hazards in the location and the classes to which they belong
  - shows the factors contributing to the hazards
- interview friends and family, or research media sources, to collect information and articles about equipment, objects, attitudes, and behaviours that may be considered hazardous in workplaces; present this information in a class presentation or written project
- brainstorm examples of changes in technology or procedures in different types of industries or workplaces, for example, farms, building construction sites, business offices, off-shore drill rigs, hospitals, and how they have influenced workplace hazards and hazardous conditions
- do a media search to collect pictures depicting common workplace situations and identify and classify the red flags or potential hazards

Resources/Notes

🖹 Other Information Sources (See resource CD.)

- Some detail about hazards and their contributing factors can be found on the resource CD.
- *Live Safe! Work Smart!: Resources for Cooperative Education and Other Forms of Experiential Learning* (see SCO 1.1 for Internet reference) provides pictures and activities for hazard identification.

2.2 Students will be expected to demonstrate understanding of each of the three components of WHMIS—training, labels, and Material Safety Data Sheets (MSDS)—through activity-based application to at least one type of workplace.

Suggestions for Assessment

Student knowledge about WHMIS should include recognition and understanding of
- safe storage and handling of hazardous materials
- WHMIS symbols and the necessity of labelling hazardous materials
- proper storage, transport, and disposal of hazardous materials
- examples and use of hazard barriers and personal protective equipment
- the role and use of a Material Safety Data Sheet (MSDS)
- how to respond to an emergency involving hazardous materials (See Resources/Notes.)

Teachers can use
- checklists of student knowledge and attitudes about hazardous materials
- pre- and post-tests
- journal responses to teacher prompts
- group and class discussion
- rubrics for creative arts-based work, presentations, plays, and role-plays (See Appendix A: Assessment Tools.)
- certificates of achievement in WHMIS education

Suggestions for Learning and Teaching

Teachers can
- provide students with information about
  - hazardous materials symbols and proper labelling
  - the Material Safety Data Sheet (MSDS)
  - proper storage and handling of hazardous materials
  - results of improper handling of hazardous materials
  - proper procedures to follow if they detect irregularities such as leaks, passed expiry dates, deteriorating containers
  - WHMIS training programs
- lead a discussion about the history of WHMIS:
  - What protection did workers have against hazardous materials prior to WHMIS legislation?
  - What are the results of that today? (long-term occupational disease, cancers)

Students can
- interview workers retired from different kinds of work about what kinds of hazardous materials they were required to handle or work around and the effects of those materials on the workforce
- in groups, brainstorm their knowledge of WHMIS and the symbols for hazardous materials

- view *Community-Based Learning: Workplace Health and Safety: An Introduction to WHMIS* slide show
- survey their homes and workplaces for materials bearing WHMIS symbols
  - record on a chart to present to the class
  - add to a class poster of WHMIS symbols
  - consider the question: Were the hazardous materials properly labelled and stored?
- complete the following chart, which can be posted in the classroom

Item	Use	Potential Danger

Are there some potentially dangerous combinations of items?

- prepare a Materials Safety Data Sheet (MSDS) report on one of the items
- prepare a pamphlet on hazard symbols (See Appendix G: Hazard Symbols Activity.)
- design and present a role-play about
  - the safe handling of a hazardous material
  - exercising the right to refuse to handle a hazardous material
  - dealing with an emergency involving a hazardous material
- complete an external WHMIS training session (See Resources/Notes.)

Resources/Notes

Notes

- Teachers should note that WHS 11 is intended to provide a foundation in WHMIS training that students can build on as they enter the workforce, either as part-time workers or in full-time employment. Completion of external WHMIS training is not compulsory for completion of WHS 11; however, teachers should expect students to demonstrate a basic level of knowledge and application of WHMIS to a variety of workplaces.

Videos/CDs (See resource CD.)

- Community-based Learning Workplace Health and Safety—An Introduction to WHMIS slide show

Websites

- Department of Labour and Advanced Education, OHS Division—provincial WHMIS legislation
- Human Resources and Skills Development Canada—federal WHMIS legislation
- Nova Scotia Construction Safety Association—free online WHMIS at http://nscsa.org
- St. John Ambulance—free online WHMIS at http://getlifesmart.ca

📄 Other Information Sources (See resource CD.)

- *Community-Based Learning Workplace Health and Safety: An Introduction to WHMIS*—a slide show presentation with details about WHMIS symbols and regulations and the preparation and use of Material Safety Data Sheets

2.3 Students will be expected to demonstrate understanding of hazard control, including the role of reporting and personal protective equipment (PPE).

Suggestions for Assessment

Teachers can use

- teacher-student interviews
- journals and learning logs
- written artifacts
- visual products or oral presentations about hazard control
- group or class discussion (See Appendix A: Assessment Tools.)

Students will demonstrate their understanding of

- hazard control protocols
- a range of personal protective equipment (PPE) and its proper use
- the law as it pertains to hazard control and PPE
- how to report hazards and the consequences of not doing so
- the connection between workplace roles and responsibilities and hazard control

Suggestions for Learning and Teaching

Teachers can

- discuss with students why the reporting of workplace hazards is important, asking
  - why workers might not report hazards to their supervisors
  - why hazard reports might not be acted upon
- present information about hazard controls that are defined as
  - at the source
  - along the path
  - at the worker
- provide information about a range of PPE and its use in the workplace
- lead a class discussion about technological changes that have improved PPE and so prevented workplace injury
- inform students of the legal consequences for employers and workers of disregarding PPE requirements in the workplace

Students can

- role-play the reporting of a hazard to a supervisor, first to one who's a good listener and then to one who's not
- write short vignettes demonstrating strategies for exercising workplace rights and responsibilities in relation to workplace hazard awareness and control
- using data already collected about attitudes, behaviours, equipment, and objects that pose hazards in the workplace,
  - research hazard controls for them using, for example, personal work experience, interviews with relatives, friends, and neighbours, or media articles as sources of information

   – select a specific workplace and, using chart paper, diagram a pathway or flow chart depicting how the three types of hazard controls would work to prevent incident or injury
   – present this information to the class
- create collages or posters showing samples of personal protective clothing; display and discuss
- research PPE legislation as it pertains to specific workplaces, careers, and workplace tasks (See Appendix H: Safety Law at Work.)
- if they haven't already collected such data, prepare a risk assessment of work spaces in their homes, for example, the kitchen, garage, or furnace room to determine
   – whether hazardous materials are properly stored
   – whether tools, equipment, or large items are properly stored
   – whether tools and machines are safely used and maintained according to manufacturers' instructions
   – what improvements can be made to make the home a safer place

Resources/Notes

- List any resources/notes that may be helpful in addressing the outcomes for this section.

2.4 Students will be expected to show understanding of root cause analysis to identify workplace hazards and investigate workplace incident and injury.

Suggestions for Assessment

Teachers can use
- checklists of student attitudes about incident causes
- teacher/student interviews
- journal reflections
- written artifacts
- group or class discussion (See Appendix A: Assessment Tools.)

Students will demonstrate
- awareness of root cause analysis in preventing workplace incident or injury
- understanding of investigative processes in analysis of workplace incidents or injury
- understanding of the need for appropriate preventive measures

Suggestions for Learning and Teaching

Teachers can
- present students with information defining hazard analysis and root cause analysis and ask for their own experiences (See Resources/Notes.)
- lead the class in designing an investigation process and generating a form to be used after a workplace injury or incident, considering
  - Do all incidents/injuries have to be subjected to root cause analysis?
  - How could an employer set up a priority system?
- present samples of workplace safety forms and/or process, specifically for first aid, reporting hazards, job hazard analysis and safe work practice, and investigations (See Resources/Notes.)

Students can
- design a hazard analysis case study to search out root causes after a workplace injury or incident
- research media for examples of workplace injuries and/or incidents and
  - create a chart of possible root causes
  - identify preventive measures that ensure that the injury or incident won't happen again
- view WCB advertising videos at http://worksafeforlife.ca and discuss how the incidents could have been prevented with hazard identification, reporting, and controls
- select a workplace or type of work and write
  - a hazard analysis of a particular task
  - the safe work procedure for the task
- reflect in their journals about their understanding of workplace hazards and the analysis of them to determine causes and prevent further incident

Resources/Notes

📓 Notes

- Teachers can refer to the text in the resource for teachers, page 15, for a sample of investigating a workplace incident or injury to get to the root causes of the incident through exploring the possible reasons why it happened.
- Workplace safety forms can be found online through a media search. Check also the OHS and WCBNS websites.

▶ Videos/CDs (See resource CD and http://worksafeforlife.ca.)

- view WCBNS videos at http://worksafeforlife.ca
- Community Based Learning: A Workplace Health and Safety Resource for Educators—WCBNS Resource CD

2.5 Students will be expected to show strategies for safe and effective response to workplace hazards and emergency situations through exercising safety rights and responsibilities.

Suggestions for Assessment

Teachers may use
- checklists of student responses to case studies
- pre- and post-tests about emergency response
- teacher-student interviews
- journal reflections
- written products about appropriate response to workplace hazards
- group or class discussion (See Appendix A: Assessment Tools.)

Students will demonstrate their knowledge of their right/responsibility to
- be informed of safety protocols in their workplace
- be trained in safety and emergency procedures required in their workplace

Suggestions for Learning and Teaching

Teachers can
- provide information about
    - what constitutes a workplace emergency
    - legislation on required first-aid training, for example, ratio of first-aid providers to workers
    - historical events, such as Westray, that led to changes in law (See Resources/Notes.)
- present general emergency response information that workers need to know for their workplace:
    - fire safety and fire exits
    - security systems and protocols
    - response to threatening, dangerous, and/or difficult behaviour
    - use of telephones, two-way radios, pagers, e-mail, text messaging
    - communication protocols when working alone or away from the base of operations
    - response to hazardous materials spills
    - response to injuries, minor to severe
    - provide case studies of emergency situations and ask students to identify whether correct procedures were followed and, if not, what should have occurred (See Appendix B: Incidents/Case Studies.)

Students can
- identify strategies for safe and effective response, including reporting, to workplace hazards and emergency situations
- write a risk analysis of work that they currently do or hope to do and design an emergency response protocol that reflects some of the hazards of that work

- in small groups, write and present role-plays depicting an emergency situation and worker response
- view and discuss the emergency responses depicted in
  – the WorkSafe BC video *The Supervisor*
  – the WCBNS advertising videos at http://worksafeforlife.ca
- research the workplace of an emergency responder (paramedic, fireman, police officer):
  – What workplace hazards do these workers face?
  – In the event of a highway crash involving one of these responders while on duty, how many workplaces may be present? What are they and what hazards do they face?
- reflect in their journals about a workplace emergency they may be familiar with

Resources/Notes

▶ Videos/CD (See resource CD and http://worksafeforlife.ca.)

- WCBNS videos at http://worksafeforlife.ca
- *The Supervisor*

🌐 Websites

- Canadian Centre for Occupational Health and Safety (CCOHS) website
- Westray Inquiry: Nova Scotia Government (www.library.ns.ca)
- Westray Inquiry: St. Francis Xavier University Library—a source of transcripts of the hearings (library.stfx.ca)

📄 Other Information Sources

- Nova Scotia Department of Labour and Advanced Education: *Occupational Health and Safety Act*, regulations, and Labour Standards Legislation

Contexts for Learning and Teaching

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, 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 situation and the type and form of information the student is dealing with, just as most teachers have a preferred teaching style, depending on the context. By reflecting on their own styles and preferences as learners and as teachers 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 who have a limited range of ways of learning

The Senior High School Learning Environment

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

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 can

- 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

Building the Climate

The development of a positive and inquiring classroom climate is vital to Workplace Health and Safety 11. It is essential that teachers spend time during the first few weeks of the course to develop a positive classroom atmosphere that emphasizes respect for the feelings and values of others. A positive classroom environment generates

- *a sense of significance*—students feel that they are significant, that they will be heard and listened to, and that their opinions will be valued by both the teacher and their peers

- *trust*—students perceive an honest and genuine interest in their development on the part of the teacher and their peers
- *comfort*—students feel that they can interact openly with others and that their need for privacy will be respected

Teachers may find the following suggestions helpful as they work toward developing a positive classroom climate.

- **Accentuate the positive.** Teachers openly show concern and respect for students, are supportive, and provide positive feedback.
- **Establish ground rules at the outset and adhere to them.** Invite students to help to develop the expectations for the classroom.
- **Balance the level of student participation.** Ensure that all students have opportunities to participate.
- **Be a good listener and encourage your students to become good listeners.** It is often useful to ask a student to rephrase a question to discover its true intent or meaning. It is also helpful sometimes for the teacher to rephrase the question and ask, "Did you mean …?" or "Did I understand you correctly to say that …?"
- **Analyze your own level of participation.** Be the organizer, the facilitator, but do not dominate discussion. Give students the responsibility to control their own discussion.
- **Encourage students' input on difficult issues.** Do not attempt to be the authority. Give students time to consider their responses. Values-related matters may not have a right answer.
- **Respect students' rights to privacy.** Information gained about students' personal lives is confidential, and the right to privacy must be respected. Students may choose to share information, but the option to "pass" should be clearly stated.

Confidentiality

The duty to report suspected child abuse and neglect overrides the confidential requirement of all professional relationships. Students must be aware of the teacher's responsibilities in such instances.

Some topics in this course may be considered sensitive or controversial. The degree of sensitivity will vary from community to community and from individual to individual, depending on personal, religious, or ethnic beliefs and values.

Sensitive Issues

Many school boards have developed policies or guidelines that provide direction for teachers who may address sensitive issues in their classrooms. Teachers must avail themselves of such information.

Teachers should avoid taking a one-sided approach when addressing issues of a controversial nature. Students need to explore a variety of perspectives regarding a particular issue to enable them to make appropriate personal decisions. They also need the opportunity to discuss value issues with others, to hear divergent opinions,

and to express their own opinions. It is important that students be allowed to clarify their own values in a non-judgmental environment, confident that the teacher's value position on an issue will not be imposed, and assured that no one in the class will be put down or criticized for holding a certain value.

- Stress the students' right to privacy. Encourage students to discuss issues that concern them, but support their right to privacy.
- Be sensitive to values. Values are conveyed as much by what is not said or not done as by what is said or done. At the same time, help students to understand the role of values in decision making and interaction between people.
- Be prepared to discuss all sides of controversial issues so that students can identify their personal feelings on the issues.
- Provide information to all students about school and community agencies and resources available to them if they need help with a problem.
- Assess your own thoughts and feelings about sensitive issues.

Engaging All Students

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

Workplace Health and Safety 11 provides opportunities to engage students who lack confidence in themselves as learners, who have a potential that has not yet been realized, or whose learning has been interrupted (for example, refugees). These students may need substantial support in gaining essential knowledge and skills and in interacting with others.

Teachers can engage learners by
- getting to know their students as persons, while at the same time respecting their privacy
- incorporating opportunities for students to have a voice
- establishing criteria for learning and for individual assignments collaboratively to ensure students' ownership of their learning
- setting goals that are attainable and that will promote a sense of accomplishment and self-satisfaction
- offering choice, whenever possible, of reading material, of methods to present knowledge and information, and of assignment topic or focus within a topic
- being honest and sincere in order to develop a trusting relationship, while at the same time responding to student work in a positive and encouraging way

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 provide individuals with clarification and elaboration
- are not threatening or intimidating
- focus on successes rather than failures
- are organized into clear, structured segments

Acting as facilitators to encourage students to take more responsibility for their own learning, teachers can provide opportunities for students to decide how intensively to focus on particular areas. Within the Workplace Health and Safety 11 curriculum outcomes framework, teachers can work with individual students to identify learning outcomes that reflect the student's interests and career plans.

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

Health and Safety

Activities in skilled-trades centres, shops, laboratories, or workplace settings should include an element of safety education. Teachers of Workplace Health and Safety 11 planning learning experiences should be mindful of health and safety concerns as students complete activities both inside and outside the classroom so that they can encourage students' further acquisition of
- a strong orientation toward both personal and group safety
- better awareness of potential safety hazards at school and in the workplace
- a firmer knowledge of safety procedures and safe work habits
- a confident knowledge of emergency procedures
- the ability to design and maintain safe work areas

Learning beyond the Classroom

Workplace Health and Safety 11 offers opportunities for students to extend learning beyond the classroom as they focus on health and safety concerns in their communities, homes, and workplaces. In these settings, students have opportunities to connect their learning to tangible, practical purposes; their future education and career plans; and the world beyond the high school setting. Students participating in job-shadowing experiences or work placements, or students going into the

workplace or community to observe and conduct research on workplace health and safety, will be provided with opportunities to put into practice the health and safety knowledge they acquire in the classroom.

It is important that administrators and teachers work to establish mutually beneficial relationships with businesses, organizations, 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
- establish class practices and procedures that promote positive and ongoing community relationships
- 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

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.

In designing learning experiences, teachers must accommodate the learning needs of individuals and consider the abilities, experiences, interests, and values that they bring to the classroom.

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 use 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

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 Workplace Health and Safety 11 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 enriches their lives and their culture.

The curriculum outcomes designed for Workplace Health and Safety 11 provide a framework for a range of learning experiences for all students. 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. 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* (2008), Policy 2.6.

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 by which 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.

The Role of Technologies

The outcomes in Workplace Health and Safety 11 depend on access to up-to-date and accurate workplace health and safety data, including legislation and information about new developments in personal protective equipment and hazard control, which are available most immediately on the Internet. Students also need access to the information and communication technologies available in schools to facilitate learning across the curriculum.

Vision for the Integration of Information

The Nova Scotia Department of Education has articulated five strands in the learning outcomes framework for the integration of information and communication technology (ICT) within public school programs:

Basic Operations and Concepts—concepts and skills associated with the safe, and efficient operation of a range of information and communication technology

Social, Ethical, and Human Issues—the understanding associated with the use of ICT, which encourages in students a commitment to pursue personal and social good, particularly to build and improve their learning environments and to foster strong relationships with their peers and others who support their learning

Productivity Tools and Software—the efficient selection and use of ICT 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

Communications Technology—specific, interactive technology use that supports student collaboration and sharing through communication

Research, Problem Solving, and Decision Making—students' organization, reasoning, and evaluation of their learning, which rationalize their use of information and communication technology

Assessing and Evaluating Student Learning

Assessing and Evaluating Student Learning

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

Evaluation is the process of analyzing, 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 Nova Scotia Department of Education's *Public School Programs*, should be used as the basis of assessment and evaluation policies, procedures, and practices.

Assessment in Workplace Health and Safety 11

Some students entering Workplace Health and Safety 11 will have completed Career Development 10 and will be familiar with the instructional approaches and assessment practices recommended for that course. Assessment in Workplace Health and Safety 11 continues to encourage students' active participation in their own learning. Workplace Health and Safety 11 students will continue to grow in confidence in their observations of their achievement and decision making.

Assessment for Workplace Health and Safety 11 should be considered an ongoing process, not an event. Teachers need to think of assessment as being of two kinds— assessment of learning and assessment for learning.

Assessment *of* Learning

Assessment of learning is what teachers associate with summative assessment, that is, tending to be mark driven, used to accumulate numerical data for the purpose of assigning grades. Tests, exams, and assignments given for the purpose of attaining marks fall in this group.

Assessment *for* Learning

Assessment for learning, on the other hand, works to provide students with ongoing checks into how they are doing, what kind of progress they are making, and what they need to learn next in order to be successful. Student self-assessment is an important factor in assessment for learning. Anecdotal feedback, rubrics, scales, and checklists are all important ways for teachers and students to learn more about how they are doing and what they are having difficulty with.

While both kinds of assessment are useful and important, the larger balance of assessment in Workplace Health and Safety 11 should be assessment for learning. Teachers read journal reflections, observe group and independent work, talk formally and informally with students, and they note changes in attitudes and growing

awareness of the importance of what they are learning. Workplace Health and Safety 11 does not lend itself well to testing and examination, although there may be some occasions where a more formal assessment could be useful.

Effective Assessment and Evaluation Practices

Effective assessment improves the quality of learning and teaching. It can help students become more reflective and have control of their own learning, and it can help teachers 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
- accommodate multiple responses and a range of tasks
- 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
- include students in developing, interpreting, and reporting

Involving Students in the 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 in which oral, written, and visual language are used in different cultures for a range of purposes, 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 ways, 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 they value; for example, teachers can communicate that they value risk taking or lateral thinking by including these elements in assessment.

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 that 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 evaluation and assessment 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 and specific feedback on learning

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

Portfolios

A major feature of assessment and evaluation in WHS 11 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. The portfolio documents Workplace Health and Safety 11 activities.

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 allow students to examine their progress and demonstrate achievement to teachers, parents/guardians, and others.

LifeWork Portfolio

Students should also be encouraged to develop a LifeWork 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 portfolio can be very helpful when students need to demonstrate their achievements to potential employers or admission offices of post-secondary institutions.

It is important to note that the LifeWork Portfolio is not an assessment tool. Although it may include artifacts that have already been used for assessment purposes, the LifeWork Portfolio is a tool for identifying strengths, interests, and skills and for demonstrating growth.

LifeWork Portfolio: A Teaching Resource can be downloaded from the LifeWork Portfolio website at http://EDnet.ns.ca.

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 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 to assess learning of a higher order than recall of information, for example, learning that requires synthesis, analysis, or evaluation.

In learning activities that involve solving a Workplace Health and Safety 11 problem, students might work collaboratively to clarify and define the task and then work either collaboratively or individually to develop a solution. 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 to demonstrate knowledge and skills and apply strategies at multiple stages in learning processes, for example, in identifying problems, challenges, and opportunities; gathering, evaluating, and synthesizing information; generating options; and developing and evaluating solutions.

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

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

Assessment Tools

The criteria and assessment ratings in this appendix are intended to provide teachers with a starting point in creating their own assessment tools. Teachers may wish to add or remove criteria, depending on the specific requirements of the student assignment, or to add numerical ratings (or additional rating columns) where marks are desired. However, two points are important:
- the criteria in the assessment tools need to be shared with students when assignments are given so that they fully understand how their work will be assessed
- the assessment tools are primarily intended to help students understand what they are doing well and where they need to improve

Group Discussion Participation

Criteria	Very Good	Acceptable	Needs Work
Listened attentively to other speakers			
Did not interrupt other speakers			
Acknowledged and showed respect for differences of opinion			
Used non-confrontational tone and language			
Made a contribution to the discussion			
Stayed on topic			
Body language respected all participants			
Gave and accepted criticism appropriately			
Comments:			

Oral Presentation Rubric

Name: _____

Content			
Presentation	**Well done**	**Acceptable**	**Needs Work**
covers the topic at an appropriate depth			
has a good beginning and conclusion			
is logically arranged and easy to understand			
uses correct grammar and pronunciation			
Delivery			
Presenter	**Well done**	**Acceptable**	**Needs Work**
is audible			
enunciates clearly and slowly enough to be understood			
makes eye contact			
uses good posture			
uses visual supports (artifacts, posters, slide show) properly			
does not read notes or overheads			
is clearly engaged with the material			

Comments/Suggestions for Improvement:

Role-Play Assessment

This can be used for groups as well as individuals.

Skill	1	2	3	4
Preparation	clearly not prepared	some preparation evident (sketchy scripts, haphazard sequencing); needs more rehearsal	preparation evident, although more rehearsal required; script shows some imagination	shows evidence of a significant amount of work and rehearsal; highly imaginative
Content	too brief and lacking in detail to make its point or doesn't make a point	brief, but contains enough detail to make a simple point	adequate material to make a simple point or argument	contains a lot of material and makes several points or a complex point or argument
Delivery	halting, unrehearsed; dependent on inadequate notes; props inadequate or not handled well; no commitment to topic	some attention to pacing; over-dependent on notes; props need more practice for comfortable presentation; some interest in topic evident	mostly well paced, although sometimes less so; props are mostly handled well; interest in and commitment to topic is evident	well paced, flows smoothly; not dependent on notes; supported by props; shows keen interest in and commitment to the topic
Group work	not a cohesive group; one or two members responsible for all the preparation; not attentive to one another	several members working well together, but not the whole group; perhaps several agendas at work	mostly supportive of one another, although not all members equally so; sometimes not attentive to other members of group	very supportive and encouraging of one another and attentive to the part played by other team members
Language usage	speech is unclear, mumbled, or too rapid; no evidence of thought put into language choices	speech is sometimes clear, sometimes mumbled or too rapid; some thought put into language choices in script	speech is mostly clear and easy to understand, although occasionally not loud enough; script shows attention to language choices	speech is clear, slow, and loud enough for class comprehension; language choices add significantly to the presentation

Visual Media Assessment

The following rubric can be used to assess a variety of visual media, such as posters, collages, pamphlets, web pages, and slide shows, where an art component is present as well as, or instead of, print to convey an idea.

Criteria	1	2	3
1. Colour is used appropriately to please or to challenge the viewer.			
2. Text (if present) is neat, clearly legible, and appropriately sized.			
3. Text (if present) is appropriately arranged with pictorial elements.			
4. Overall appearance is tidy, neat: – clutter is minimal – decoration does not detract from the purpose of the visual			
5. The medium used (for example, computer software, pencil, oil, acrylic) shows command of technique.			
6. Attention to detail is evident.			
7. Visual's message is clear, well articulated, and enhanced by the art.			
8. Visual's theme and its presentation make an impact on the viewer.			

Student Group Performance Assessment

Activity: _____

Names of Group Members: _____

_____

Complete the following form by circling the appropriate numbers to indicate how you thought your group performed. Then discuss your ratings with other group members. Be honest! This is intended to help you develop your teamwork skills.

Rank as follows:
1 = Needs a lot of work
2 = Fair performance
3 = Okay performance
4 = Pretty good work as a group
5 = We were fantastic!

All members participated in the group's activity.	1	2	3	4	5
Group members listened attentively when others were speaking.	1	2	3	4	5
Every group member offered input to the discussion.	1	2	3	4	5
Group members stayed on task.	1	2	3	4	5
Group members were polite to one another.	1	2	3	4	5
No one put down anyone else's contribution.	1	2	3	4	5
No one dominated the discussion.	1	2	3	4	5

Total your score out of 35 _____

In what areas did your group shine? _____

_____

In what areas does your group need to improve? _____

_____

What steps will your group take to become a better working group? _____

_____

Group Performance Self-Assessment

Activity: _____

Name of Student: _____

Names of Group Members: _____

_____

Complete the following form by circling the appropriate numbers to indicate how you thought you performed. Be honest! This is intended to help you develop your teamwork skills.

Rank as follows:
1 = I need to work a lot harder.
2 = My performance was only fair.
3 = I gave an okay performance.
4 = I did pretty good work.
5 = This was one of my best performances.

I participated in the group's activity.	1	2	3	4	5
I listened attentively when others were speaking.	1	2	3	4	5
I offered appropriate input to the discussion.	1	2	3	4	5
I stayed on task.	1	2	3	4	5
I was polite to my fellow group members.	1	2	3	4	5
I made positive comments about others' contributions.	1	2	3	4	5
I did not dominate the discussion.	1	2	3	4	5

Total your score out of 35 _____

In what areas did you shine? _____

_____

In what areas do you need to improve? _____

_____

What steps will you take to become a better group member? _____

_____

Assessment of Video Products

Criteria	Well Done!	Acceptable	Needs Work
Planning			
storyboard defines the direction of the plot			
order of scenes shows careful consideration			
assemblage of props shows thought			
Plot			
storyline is clear			
introduction clearly defines the direction of the video			
conclusion sums up the point of the video			
Narration/Dialogue			
spoken language is clear and audible			
narration (if used) clarifies plot and adds interest			
dialogue and its delivery suit the plot			
Camera Work			
camera is steady, does not swing about or wobble			
transitions are carefully planned and carried out			
zooms in and out are smoothly done			
Overall Impression			
video makes a statement about the topic			
video makes a contribution to the body of information about the topic			

Assessing Journal Responses and Reflections

WHS 11 journal responses and reflections will, for the most part, be focused by questions or topics generated by the teacher. Length should not be a criterion for assessment. A response that is too brief will not address the topic effectively when assessed using the criteria in the following matrix.

Criteria	Well Done!	Acceptable	Needs Work
1. Content of response adequately covers the topic.			
2. Response probes issues in depth.			
3. Response raises questions about the issue.			
4. Response shows insightful thinking about the issue.			
5. Response attempts to resolve issues or answer questions.			
6. Response shows engagement with the topic or issue.			

Note: teachers may also wish to assess journal reflections on writing style and attention to matters of correctness; however, the primary assessment focus should be on content.

Assessing Written Artifacts

Written artifacts include reports, research papers, web pages, and any written component of other assessment activities. While there are many assessment tools available in other curriculum documents and on the Internet, the following general guidelines will provide a place for teachers to start when instructing students about the criteria that will be used to assess written products.

Criteria	Well Done!	Acceptable	Needs Work
Content			
theme, main idea, or topic is clearly defined			
points supporting theme are clearly articulated and logically sequenced			
argument/discussion makes sense and is supported by outside authorities			
Structure			
paper has an identifiable beginning, middle, and conclusion			
attention is paid to proper paragraphing			
transition words/phrases mark movement from one idea to the next			
Language Usage			
sentence structure is varied (for example, complex with simple sentences)			
vocabulary choices are appropriate			
attention is paid to proper grammar			
attention is paid to matters of correctness (spelling, punctuation, capitalization)			
Format (depending on type of writing)			
sources are properly cited			
a reference/bibliography page is included and properly formatted			
an appropriate title is used			
Overall Impression			
attention to matters of format, as well as content			
overall quality of the product, as well as its usefulness in adding to class understanding of the subject matter			

Case Studies

The following case studies can be used for class discussions for any of several purposes:
- to heighten student awareness of what a workplace incident or injury might look like
- to examine how personal communication and relationships influence workplace safety
- to examine how adhering to safety responsibilities (employer and worker) and exercising safety rights (worker) would have prevented the incidents
- to suggest appropriate emergency procedures or critique the measures followed

Teachers should feel free to use these incidents as a starting point in their class discussions and add or subtract details to meet their students' learning needs.

1. Chen was employed by a large lumber mill, where he drove a forklift and moved pallets of lumber around the yard. One day, he was moving a pallet and, in the process of reversing his machine, ran over Bill. Bill, fortunately, was not killed, but several vertebrae, his right arm, and his right leg were broken. Bill had a reputation for being a practical joker and had sneaked up behind Chen, out of his range of vision, with the intent of startling him.

2. Jerry was employed by the town as a municipal maintenance worker. After a problem arose with a sewer line, he and another worker opened up an access cover to attend to the problem. Jerry descended into the sewer and quickly collapsed. His co-worker immediately climbed down to rescue him and also collapsed. Both men died of methane poisoning at the site, where they were later discovered by a passer-by.

3. Brianna is a part-time worker in a large building supply store. She assists customers in the kitchen and bathroom department and helps to stock shelves. One day a customer asked Brianna to reach up and get two boxes from a stack of four on the third shelf. The boxes were large but not heavy, and Brianna attempted to lift down two at once by pulling them out from the bottom of the stack. All four boxes came off the shelf at the same time, knocking Brianna to the floor where her left elbow hit the floor hard enough to shatter the bone.

4. Jacques works for a large equestrian stable as a trainer. Occasionally, he assists the stable hand in cleaning out stalls and turning out horses into the paddock. One day, the resident stallion breaks loose from the stable hand, and Jacques attempts to catch the horse and put him back in his stall. As Jacques reaches for his halter, the stallion grabs Jacques's left forearm in his jaws and, holding on, shakes him as if he were a rag doll. When the stallion finally lets go, Jacques is battered and bruised from being flung against stalls, and he has large lacerations on his forearm through which the bone can be seen. He suffers significant nerve damage, undergoes surgery to reconnect nerves and blood vessels, and even after two years, still has not recovered full use of his hand.

5. Royce has been working for less than a week with a small construction company that is laying out electrical and sewer lines in a new subdivision. The job involves digging trenches, laying the pipe, and then connecting the ends in the trenches. This is Royce's first day to enter a trench to connect pipe. It has been raining, and the steeply graded sides of the trench are very soft. Almost as soon as Royce climbs down the ladder, the wet, heavy earth in one wall of the trench collapses, burying him to his chest. Because of the risk of injury to emergency responders, it takes hours to rescue him.

6. Alesio and his wife, Janet, own a beef farm where they finish around a hundred head of steers each year. They grow their own forage, harvesting haylage and round bale hay every spring and summer. Alesio has been driving tractors and fixing farm equipment for many years. One day, he is mowing hay when a piece of wire hidden in the tall grass becomes caught between the tractor and the mower. Alesio gets off the tractor, and as he reaches past the power take-off (PTO) shaft to grab the wire and pull it out, the sleeve of his jacket becomes caught by the PTO. The spinning PTO pulls his sleeve and arm into its rotation, resulting in massive injury and blood loss. Fortunately, his son finds him, unconscious, but still alive.

7. Rod is a drywaller with nearly 25 years of experience mudding drywall and sanding walls to a fine finish. He is very good at his job. When he was starting out 25 years ago, filter masks to prevent the inhaling of drywall dust were rarely required by employers or worn by workers. Even though the company Rod works for mandated the use of filter masks years ago, he generally puts one on only when the company manager is nearby. His immediate supervisor rarely reminds him to wear a mask. Recently, Rod has started to experience breathing problems and a bad cough. Although he has never been a smoker, he is diagnosed with emphysema and becomes unable to do the only work he is skilled in doing.

8. Jill works summers for her uncle's lawn and garden company, usually with a co-worker. She often does pruning work from ladders anywhere from two to six metres off the ground. The company's safe work practice requires that a co-worker act as spotter to steady and hold ladders at all times. One day Jill's co-worker is out sick, so she calls her uncle to let him know that the tree pruning will have to wait until the next day. He says that this will put them too far behind schedule and tells her to use the shorter, 2-metre step ladder to prune as high up as she can. While working, Jill overreaches and the ladder tips. She falls and breaks her collarbone.

9. Marion is a new worker in the kitchen of a university cafeteria, and every day from 11:30 to 1:30, the kitchen and counter staff are extremely busy. Experienced workers are always hurried, and newer workers often become overwhelmed and frazzled by the volume of work. Some supervisors see this as an acceptable way to decide which workers are suitable for the job. On the busy lasagna day, a supervisor shouts at Marion to "Get a move on!" Before she remembers to put on the long oven mitts, Marion turns and grabs a tray of lasagna from the steam table. The edges of the tray immediately burn the insides of both her arms from her elbows to her wrists.

10. Mikhail works as a continuing care assistant (CCA) in a local nursing home. His job requires him to care for elderly, often bedridden patients who cannot care for themselves. Several of Mikhail's patients require two CCAs to safely transfer them from their beds to wheelchairs and tubs. On the day of Mikhail's injury, the floor is short staffed, and replacement workers cannot get in right away. Mikhail knows that waiting means delaying the patients' care and goes to the nursing supervisor for permission to begin work without another CCA present. The supervisor agrees and tells Mikhail to "be careful." While lifting his third patient, Mikhail experiences a pain in his lower back so sharp that it takes his breath away.

11. Abraham works in a call centre and sits at a desk using a phone for almost all of the nine hours of his shift. When he was hired, the manager said his work station and chair would be adjusted to his size. As part of a safety orientation, Abraham got a headset for the phone and instructions on its use. He also watched a video about how to avoid soft tissue injuries, including stretching exercises and resting his eyes to prevent screen strain. Weeks have gone by, and his work station has not been adjusted to his size. While Abraham is doing all he can to stay injury free by wearing his headset, stretching, and resting his eyes every 20 minutes, his shoulders, neck, wrists, and forearms are killing him. He's asked his manager several times, but nothing seems to get done. Abraham is not sure what do to next.

12. Kathryn works evenings in a food court at a shopping mall. She is a quiet, shy young woman who does not make friends easily. However, she knows how to do her job properly, and she is prompt at cleaning tables, clearing away trays, and emptying refuse bins. Her supervisor is pleased with her and acknowledges her good work, but three of her co-workers (who also go to her school) constantly tease her for this. They call her names and make unpleasant insinuations about her character that really upset her. They dump food tray residue where she will have to clean it up. Her supervisor never sees any of this behaviour. Kathryn is afraid that telling him what's going on will reflect badly on her, that she'll lose her job, and that it will lead to increased bullying and teasing. She is having trouble sleeping, feels sick, and is losing weight. Her marks at school are slipping.

WHS K-W-L Chart

Completing K-W-L charts gives students an opportunity to
- examine what they already know/think they know about a topic they are about to study
- ask questions about the topic
- focus their research and study direction in order to maximize their learning
- reflect on their newly acquired knowledge at the end of the learning process

What I know/believe	What I want to learn	What I have learned

Carousel Activities

Learning carousels permit students to begin learning about a new topic by exploring what they know about a topic.

Sheets of chart paper are located around the room. Written on each sheet is a comment, topic, or question related to the study matter for students to consider as they move around the room (hence carousel). In small groups students should
- discuss what they understand about what's written on the chart paper
- agree on comments or points to write on the charts
- add only ideas that have not already been expressed

When all groups have visited each chart, teachers can lead a discussion about the added content in order to
- reiterate important ideas
- dispel incorrect information

Creating an Ethics Statement

Creating an Ethics Statement for a Business

You may work with a partner for the completion of this task. To assist you in completing this task, you will need to review textbook and media sources you have access to as well as class discussions about the topic of ethics.

- Create a clear and concise definition of ethics in the workplace.
- Using this definition, create a sign you would display in the workplace if you were the owner of the business. This sign would be viewed by managers, employees, customers, and clients.
- Submit a policy statement to be delivered to all employees that outlines what this ethics statement covers, including the following:
  - What is the rationale behind the message?
  - Why are ethics important in the workplace?
  - How does the ethics statement benefit all individuals in the workplace?

Your policy statement could be a combination of paragraph and point form and must fully show your understanding of the importance of workplace ethics. You can include graphics in your signage if they help to convey your ethics message.

Rights and Responsibilities

Section _____ Title _____ (OHS Act)

	Employer	Employee
Rights		
Responsibilities		

Give examples of workplaces, or workplace situations, illustrating the rights and responsibilities listed above.

Hazard Symbols Activity

The purpose of this assignment is to create an information pamphlet about hazardous materials.

The following must be included:
- at least five of the recognized WHMIS symbols and their definitions
- examples of hazardous materials within the categories you choose to include
- proper storage and safe handling procedures for each of the hazardous materials
- images to represent the materials

Your pamphlet must
- be informative and accurate
- use clear, concise, unadorned language
- seek to educate its readers

Your pamphlet will also be assessed on its appearance (neatness and quality of images).

Safety Law at Work

This learning experience provides a framework for students and teachers to explore how the Nova Scotia *Occupational Health and Safety Act* and its regulations, along with other pieces of provincial legislation, apply to different industries, types of work, and tasks. As a starter, see page 21 of the Nova Scotia Safety Division tab of the resource binder, which lists different safety regulations; see also the Legislative Counsel home page on the Nova Scotia House of Assembly website for an index of legislation.

The exercise can be done in three different ways:

1. Investigate a variety of workplaces and legislation.

Create a table. Across the top fill in the names of different pieces of legislation, and down the side fill in the names of different types of workplaces or jobs. Search the pieces of legislation for applications to those workplaces and fill in at the intersections.

Example:

	OHS	Fall Protection Regulations	Occupational Health Regulations	Violence in the Workplace Regulations
Construction				
Health Care				
Manufacturing				
Retail				

2. Investigate specific careers within one industry.

Create a table. Across the top fill in different types of legislation, and down the side fill in different careers in that industry. Search the pieces of legislation, and at each intersection fill in one example of how law applies to that job.

Example:

Construction	OHS Act	Temporary Workplace Traffic Control Regulations	Occupational Safety General Regulations	First Aid
Carpentry				
Excavation				
Electrical				
Roofing				

3. Investigate different tasks within one career.

For a more demanding project, have the student choose a career, break that work down to either different common tasks or different common hazards, choose applicable pieces of legislation, and at each intersection fill in one example of how the law applies to the safe completion of those tasks.

Example:

Nursing	OHS Act	Safe Needles in Healthcare Act	WHMIS Regulations	Violence in the Workplace Regulations
Delivering injections				
Exposure to blood and body fluids				
Moving patients				
Working with agitated persons				

Sample Projects

The following two projects give examples of how assessment of several outcomes at once can be accomplished. These are samples only; teachers can use them as guidelines in developing their own assignments.

Reference Guides

Working with a partner, create a safety reference guide—a brief, one-page reference for some aspect of workplace safety. Brainstorm with your partner topics that would be suitable for such a project. Examples include
- CPR Basics
- WHMIS 101
- 10 Safety Questions You Need to Have Answered before You Start Work

Criteria for assessment include
- must be user-friendly
- must contain accurate information, examples, instructions
- must have graphics and colour
- must be neatly done
- depending on medium used (computer or hand-done), must show attention to producing quality work

Promotional Package to Enhance Workplace Health and Safety for Young Workers

Recent research released on youth and the job market indicates that young workers between the ages of 15 and 24 are more likely to injure themselves in workplace-related accidents. In light of this research, you will create a multifaceted promotional package to encourage and implement safe working conditions for young Canadians.

The package will include the following:
- research analysis on young workers and a brochure on workplace safety
- the components of a healthy workplace (physical and psychological factors)
- responsibility in the workplace for health and safety
- Nova Scotia *Occupational Health and Safety Act*: major components and the role of OHS Committees (i.e., structure and function, guidelines)
- tip sheets for young workers, parents/guardians, employers, and supervisors
- extreme safety digital slide show presentation for the employment of your choice and the WHMIS needed for you to have that particular job
- job opportunities

Research Analysis

Find at least five current research articles on the effect and importance of health and safety issues for adolescents. Two of the articles must be from journals, one may be from a magazine, and the other two may be from sources of your choice.

- Read and highlight the important parts of each article. Make your own notes.
- Create a brochure for young workers that will be distributed in schools. Since this will be presented to others, ensure that it looks professional with diagrams, pictures, charts, colour, and any other technique that will add to the overall appeal and layout of the guide. All information must be in your own words.

Components of a Healthy Workplace

Describe the components of a healthy workplace. Examine relationships between co-workers, bosses, and levels of staffing. Research the impact of psychological factors such as stress and interpersonal relationships.

Answer these questions:
- What makes a workplace healthy?
- What makes a workplace unhealthy?

Create a skit demonstrating these situations.

Workplace Responsibility

Examine the role of the employer, worker, supervisors, and government regulations in the job market.

- What is each responsible for and what is the consequence for not complying with health and safety regulations?
- What is the government's role?
- What is the *Occupational Health and Safety Act* and how is it enforced?

Create a poster that would be placed in a workplace that would explain workplace responsibility. It needs to be easy to read and understand and catchy so workers and employers will read it. Remember to add colour.

Occupational Health and Safety Committees

What are the roles of OHS committees in the workplace? How are they structured? Recreate an OHS committee. Define each person's role and his or her responsibilities. Format is your choice.

Tip Sheets for Young Workers, Parents, Employers, and Supervisors

Create tip sheets for workplace health and safety for young workers. They should be catchy, colourful, and have a slogan. One poster per target group, 8½" x 11" white sheet of paper / card stock is the required poster size.

WHMIS: What Is It?

Create an extreme safety digital slide show presentation for a workplace of your choice; include the WHMIS needed for you to have that particular job. This job can be the same one you choose to complete the job opportunities component of your presentation.

Job Opportunities

Research a job opportunity that may be of future interest to you. In your research, you will examine the following as related to your job choice:

- job description
- education
- salary
- safety concerns / risks (physical and mental)
- health and safety procedures (OHS committees, safety groups)
- employer/worker rights and responsibilities

Create a job posting ad. It should be creative, colourful, appropriate, and include all the above information—what a potential young worker should know about the job before applying.

Assessment

Your project will be assessed using an appropriate rubric. (Note: teachers should decide the criteria and how success will be assessed and provide this to students when the assignment is given.) In addition, each day, your group will be assigned a mark for that day's effort and work completed. Both teacher and group members will assess performance.

Assessment will be broken into the following categories:

- paper products
- group work
- class presentation

Resources

Authorized Learning Resources

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- *Canadian Agricultural Safety Association,* www.casa-acsa.ca
- *Canadian Centre for Occupational Health and Safety*, www.ccohs.ca
- *Canadian Labour Congress*, www.canadianlabour.ca
- *Nova Scotia Farm Health and Safety Committee*, http://gov.ns.ca/agri/farmsafety/
- *Nova Scotia Federation of Labour*, www.nsfl.ns.ca/home.htm
- *Nova Scotia House of Assembly, Office of the Legislative Counsel*, http://nslegislature.ca/legc/index.htm
- Ontario Ministry of Labour, *Live Safe! Work Smart!: Resources for Cooperative Education and Other Forms of Experiential Learning*, www.livesafeworksmart.net
- *Women in Trades and Technology National Network*, www.wittnn.com
- *Workers' Compensation Board of Nova Scotia*, www.wcb.ns.ca

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