

DATE	LOCATION
April 23 2024	Building Trades Advancement College

Time	Task
8:30 am	Contest orientation
9:00 am - 10:30 am	Competitors work on a <b>rotational schedule</b> to complete three (3) activities: Hazard Identification – inspecting a Landscaping “Mock Workplace”. (45 min)
10:30- 10:45 am	Morning Break
10:45 am - noon	Hazard Control Activity
12:00 am- 1:00 pm	Lunch Break
1:00 pm- 2:30 pm	Continuation of Hazard Control Activity
2:30 pm-3:30 pm	Workplace Safety Presentation - preparing and delivering an Occupational Health and Safety (OHS) Research and Presentation on “Personal Protective Equipment (PPE)”. (10 min)
3:30 pm – 4:00 pm	Competition wrap-up

**Purpose of the Workplace Safety Competition**

To assess competitors understanding of Occupational Health and Safety (OHS) and ability to perform OHS related tasks including, identifying hazards, displaying an understanding of hazard control, and effectively communicating OHS information.

**Criteria**

The competition consists of three (3) activities:

1. Hazard Identification - inspecting a Landscaping “Mock Workplace.”
2. Hazard Control Search - visiting assigned competition area (TBD) to find examples of hazard control.

3. OHS Research and Presentation - preparing and delivering an OHS presentation to the judging panel on “Personal Protective Equipment (PPE)”

### **Number of Spaces**

There are 10 spaces available for competitors

### **Skills & Knowledge to be Evaluated**

- Core knowledge of OHS principles
- Ability to identify and assess workplace hazards, and recommend corrective actions
- Ability to recognize and discuss hazard controls
- Ability to effectively communicate OHS information
- **Skills for Success:** Numeracy, communication, collaboration, reading, writing, creativity & innovation, digital, adaptability, and problem solving

### **Prerequisites**

#### **Contest Specific Prerequisites**

- Knowledge of WHMIS, Fire Safety, and the Nova Scotia Occupational Health and Safety Act is an asset.

#### **SCNS Prerequisites**

Secondary level competitors must meet the following criteria in the current school year:

- Attend a public or private recognized secondary institute, or be enrolled in a registered home school program through the Nova Scotia Department of Education and Early Childhood Development (EECD);
- Be between 13 and 21 years of age on January 1 of the year of the Competition. Competitors are responsible for verifying this information, if requested.
- Have been earning junior or senior high school credits any time during the current academic year (September to June);
- Be registered as a competitor with Skills Canada – Nova Scotia;
- Possess Canadian citizenship or Landed Immigrant status and be a resident of Nova Scotia; or be a registered International Student. Competitors are responsible for verifying this information, if requested;

- Have completed and submitted a signed release form by a parent or guardian if under the age of 19.

### **Equipment & Clothing**

#### **a) What Will Be Supplied**

- Laptop, projector, and screen for presentation
- Chart stands for presentations
- Clipboards, pens, pencils, and fillable workbooks
- Hard hats, safety glasses and high-visibility vests

#### **b) What Competitors Must Supply**

1. CSA Grade 1 Safety Boots or Shoes. Advise Skills NS upon registration if competitors are unable to source a pair.
2. Long pants covering the ankle

### **Evaluation & Judging Criteria**

#### **Point Breakdown /100**

1. Hazard Identification- 40
2. Hazard Control Search- 40
3. OHS Presentation- 20

***Ties are not permitted.*** In the event of a tie for medal standings, the tie will be broken in the following order:

- a) Hazard Identification Score
- b) Presentation Score
- c) Hazard Control Search Score
- d) Decision of the Provincial Technical Committee

### **Additional Information**

Please contact Provincial Technical Committee (PTC) for questions and support

### **PTC Contact Information**

<b>Name</b>	<b>Employer</b>	<b>Email</b>
Kim MacKenzie	Labour, Skills, and Immigration	kim.mackenzie@novascotia.ca
Kerry McKeen	Labour, Skills, and Immigration	kerry.mckeen@novascotia.ca
Joe Treen	Safety Services Nova Scotia	treen@safetyservicesns.ca

**Please see the following pages for the “Details Document”**

**Details Document**

The purpose of this document is to provide competitors with additional details to help support and prepare for the competition. Should competitors have further questions, they are welcome to contact members of the Provincial Technical Committee (PTC).

**1. Hazard Identification**

(45 minutes - worth 40%)

**Overview and components of this activity:**

A fundamental principle of Occupational Health and Safety is recognizing, assessing and controlling hazards in the workplace.

The Hazard Identification activity requires the competitor to demonstrate these skills by assessing, and suggesting controls for, hazards they identify in a mock workplace. For this activity, the competitors will be asked to:

Identify the hazards, and for each

- Define the hazard type (physical, biological, chemical, ergonomic, safety, psychological),
- Suggest the best “**Hierarchy of Controls**” (elimination, substitution, engineering, administrative, PPE)

**What are competitors required to do for this activity?**

- Each competitor will be given a brief orientation to the mock workplace, prior to completing the activity.
- Each competitor will be provided with a clipboard and pen /pencil and will be asked to complete a hazard identification form.

- Once oriented to the activity, each competitor will be given 45 minutes to complete their inspection of the mock workplace.
- At the start of the activity, the PTC will identify a control within the mock workplace and the competitor indicates a potential hazard that the identified control is to mitigate.
- Each competitor will identify 8 hazards (i.e., physical, biological, chemical, ergonomic, safety, and psychological). Of the 12 hazards, competitors **must use at least one of each hazard category**.

### How will competitors be marked?

For each hazard identified, the competitor will earn:

- Up to (4) points (for a potential of 32 points) for identifying the hazard, the hazard category, what needs to be done to control the hazard, and where does this type of control fit in the Hierarchy of Controls.
- Of the 8 hazards, competitors must use at least one of each hazard category (6 points)
- Additional PTC question regarding hazard identification and control. (2 points)

### Example:



<b>What is the hazard?</b> Sparks produced by grinding activities	/1
<b>What is the hazard category?</b> Safety	/1
<b>Identify controls already in use to mitigate</b> Guard on the grinder	/1
<b>What is the type of control.</b>	/1

Engineering	
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**What might competitors do to prepare for this activity?**

To prepare for this activity competitors may wish to:

- Use this link [http://www.ccohs.com/oshanswers/hsprograms/hazard\\_risk.html](http://www.ccohs.com/oshanswers/hsprograms/hazard_risk.html) to check out “What are examples of hazards?” and “What types of hazards are there?”
- Use this link <http://www.ccohs.ca/oshanswers/prevention/effectiv.html> to check out “What type of hazards do we look for in a workplace?”
- Do an online search of Workplace Hazards
- Talk to parents/caregivers and other experienced workers about hazards in their workplaces.
- Talk to a member of the Joint Occupational Health and Safety Committee at their school or workplace.
- Seek further information on hazard controls:  
[https://www.ccohs.ca/products/posters/longdesc/hazard\\_control.html](https://www.ccohs.ca/products/posters/longdesc/hazard_control.html)

**2. Hazard Control Search**

(2.5 hours – worth 40 %)

**Overview and components of this activity:**

Observing people at work and identifying hazards is one skill used by an OHS professional to assist in reducing / eliminating injury / illness in the workplace.

Identification of hierarchy of controls for controlling risks in the workplace are:

- Elimination/substitution
- Engineering control
- Administrative control
- Personal Protective Equipment (PPE)

**What are competitors required to do for this activity?**

In this section of the competition, competitors will be asked to observe a competition site selected by the PTC at the time of the competition.

- Competitors are to report to the Workplace Safety classroom at their assigned time where they will be given a brief orientation to the activity and a booklet to be completed and handed in.
- Competitors will leave the Workplace Safety classroom and head out to visit the assigned competition area.
- At the selected site, competitors will be assigned one control (chosen by the PTC)
- Competitors will observe the competition and collect information which they will use to provide written answers to a series of questions found on the Hazard Control Activity Worksheet. (30 minutes)
- Based on the control assigned, competitors will be asked to identify four (4) potential hazards, explain controls implemented to address the hazards and complete a risk assessment. (1 hour)
- Competitors will then take this information and develop a detailed safe work procedure on one of the tasks observed to control both hazards and risks at the competition site. (1 hour)

Competitors will be assigned questions on the worksheet similar to the ones below:

- What hazards are associated with this type of work?
- What controls have you observed in place at this competition site?

### How will competitors be marked?

- Identify 4 hazards: 4 points
- Explain how the controls will mitigate the 4 hazards: 4 points
- Complete a risk assessment: 16 points
- Develop a safe work procedure: 16 points

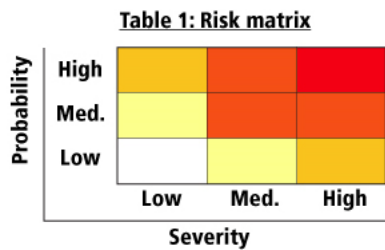
### What might competitors do to prepare for this activity?

Review websites referred to in Hazard Identification section

- Review what a risk assessment is at:  
[https://www.ccohs.ca/oshanswers/hsprograms/risk\\_assessment.html](https://www.ccohs.ca/oshanswers/hsprograms/risk_assessment.html)
- Check out sample risk assessments online, e.g.,  
[https://www.ccohs.ca/oshanswers/hsprograms/sample\\_risk.html?=&wbdisable=true](https://www.ccohs.ca/oshanswers/hsprograms/sample_risk.html?=&wbdisable=true)

- Review the “How do you establish safe work procedures” section found here: <https://www.ccohs.ca/oshanswers/hsprograms/basic.html>
- Canadian Centre for Occupational Health and Safety – [www.ccohs.ca](http://www.ccohs.com/oshanswers/hsprograms/hazard_risk.html) or [http://www.ccohs.com/oshanswers/hsprograms/hazard\\_risk.html](http://www.ccohs.com/oshanswers/hsprograms/hazard_risk.html)
- Associations for specific occupations (construction associations, electrical associations, etc.)

To assist with determining risk:



**Severity ratings in this example represent:**

High: major fracture, poisoning, significant loss of blood, serious head injury, or fatal disease  
 Medium: sprain, strain, localized burn, dermatitis, asthma, injury requiring days off work  
 Low: an injury that requires first aid only; short-term pain, irritation, or dizziness

**Probability ratings in this example represent:**

High: likely to be experienced once or twice a year by an individual  
 Medium: may be experienced once every five years by an individual  
 Low: may occur once during a working lifetime

**Table 2: Risk Ratings**

Description	Colour Code
Immediately Dangerous	Red
High Risk	Orange
Medium Risk	Yellow
Low Risk	Light Yellow
Very Low Risk	White



**These risk ratings correspond to recommended actions such as:**

Immediately dangerous: stop the process and implement controls

High risk: investigate the process and implement controls immediately

Medium risk: keep the process going; however, a control plan must be developed and should be implemented as soon as possible

Low risk: keep the process going but monitor regularly. A control plan should also be investigated

Very low risk: keep monitoring the process

### **3. OHS Research and Presentation**

(10 minutes - worth 20%)

**Overview and components of this activity:**

One method of communicating health and safety information is through written and oral communication.

The competitor will perform the role of an OHS professional researching an OHS issue at the workplace.

**Scenario:**

The workplace is a multi unit residential apartment building under construction with activities underway such as:

- Excavations
- Formwork
- Framing
- Electrical
- Plumbing
- Bricklayers
- Siders
- Mobile and Heavy Equipment (excavators, mobile cranes, cement pump trucks, forklifts, telehandlers)
- Scaffolding and ladders

- Working at Height

As the OHS professional hired, you are tasked to prepare a written memo for the employer's upper management regarding the Personal Protective Equipment (PPE) requirement for this worksite, and to include any resources used during your research.

In addition, you are to develop a PPE presentation that lasts 8-12 minutes which you are to deliver to the PTC judges (who are acting as the employees) coming onto the worksite

**Competitors will research the topic online and can use any of the following methods to deliver their presentation:**

- Electronic (PowerPoint, Google Slides, etc.)
  - Spoken, with hand-written / drawn visual aids.
  - A combination of electronic and hand-written / drawn visuals
- At their scheduled time, each competitor will deliver their presentation in front of the judging panel. Presentations of less than 8 minutes or more than 12 minutes will result in a reduction of points.
  - Presentations should include a brief introduction, content around assigned topic, and a conclusion

**How will competitors be marked?**

- Engaging the audience from the start with a dynamic introduction: 5 points
- Research (integrity of content and sources used): 5 points
- Presentation (format used, organization, visuals): 5 points
- Delivery of key points (professional, engaging, effective communication): 5 points

**What might competitors do to prepare for this activity?**

To prepare for this activity competitors may want to:

- Practice developing short presentations on a variety of topics in order to choose the format with which they feel most comfortable.

- Practice carrying out online searches of various topics / terms and explore some of the recognized OHS websites. Such websites include (but are not limited to):
  - Provincial regulatory bodies
  - Provincial compensation board: <https://www.worksafeforlife.ca/>
  - Canadian Centre for Occupational Health and Safety – [www.ccohs.ca](http://www.ccohs.ca)
  - Canadian Society of Safety Engineering – [www.csse.org](http://www.csse.org)

Other websites include but are not limited to:

[https://www.ccohs.ca/catalog/courses\\_list\\_nova.php](https://www.ccohs.ca/catalog/courses_list_nova.php)

<https://www.ccohs.ca/oshanswers/prevention/ppe/>

<https://www.worksafebc.com/en/health-safety/tools-machinery-equipment/personal-protective-equipment-ppe>

[https://ohs.guide.constructionsafetyns.ca/topic/Basic\\_PPE/](https://ohs.guide.constructionsafetyns.ca/topic/Basic_PPE/)

<https://www.youtube.com/watch?v=kcM9u4heDVk>

<https://www.worksafebc.com/en/about-us/news-events/news-releases/2023/March/worksafebc-guideline-aims-to-ensure-proper-fit-of-PPE-for-all-workers-regardless-of-gender>