

Safety in Your Science Classroom

Safety Symbols

The following safety symbols are used in *BC Science Connections 9* to alert you to possible danger. Be sure that you understand each symbol used in an activity or investigation before you begin.



Disposal Alert

This symbol appears when care must be taken to dispose of materials properly.



Thermal Safety

This symbol appears as a reminder to be careful when handling hot objects.



Sharp Object Safety

This symbol appears when there is danger of cuts or punctures caused by the use of sharp objects.



Electrical Safety

This symbol appears as a reminder to be careful when using electrical equipment.



Skin Protection Safety

This symbol appears when the use of caustic chemicals might irritate the skin or when contact with micro-organisms might transmit infection.



Clothing Protection Safety

A lab apron should be worn when this symbol appears.



Fire Safety

This symbol appears as a reminder to be careful around open flames.



Eye Safety

This symbol appears when there is danger to the eyes and safety glasses should be worn.



Fume Safety

This symbol appears when chemicals or chemical reactions could cause dangerous fumes.



Chemical Safety

This symbol appears when chemicals could cause burns or are poisonous if absorbed through the skin.



WHMIS 2015 Symbols

Look carefully at the WHMIS (Workplace Hazardous Materials Information System) safety symbols shown here. These WHMIS symbols are used throughout Canada to identify dangerous materials. Make certain you understand what these symbols mean. When you see these symbols on containers, use safety precautions. It is also important to know that WHMIS symbols were updated in 2015. So, older textbooks or chemical containers may have the previous symbols. Those symbols are being replaced with the ones below.

Symbol	Descriptor	Meaning
	Compressed gas	For gases under pressure
	Flammable	For fire hazards
	Oxidizer	For oxidizing hazards
	Acute toxicity	Can cause death or toxicity with short exposure to small amounts
	Health hazard	May cause or be suspected of causing serious health effects
	Exclamation mark	Can cause irritation to skin and eyes
	Corrosive	For corrosive damage to metals, as well as skin and eyes
	Explosive	For explosion or reactivity hazards
	Biohazardous infectious materials	For organisms or toxins that can cause diseases in people or animals
	Environmental hazard*	May cause damage to the environment



non-latex gloves

*Environmental hazards are not regulated under WHMIS, but are regulated by the Globally Harmonized System. This symbol may appear on products from other countries.

Safety Rules and Procedures

Become familiar with the following safety rules and procedures. Following them and your teacher's instructions will make performing the activities and investigations safe and enjoyable. Your teacher will also give you specific information about any other special safety rules that need to be followed in your school.

1 General rules

- Listen carefully to your teacher's instructions.
- Inform your teacher if you have any allergies, medical conditions, or other physical problems that could affect your work in the science classroom. Tell your teacher if you wear contact lenses or a hearing aid.
- Obtain your teacher's approval before beginning any activity you have designed.



- Know the location and proper use of the nearest eyewash station, deluge shower, fire extinguisher, fire blanket, first-aid kit, and fire alarm.
- Before starting an activity or investigation, read all of it. If you do not understand how to do a step, ask your teacher for help.
- Be sure you have checked the safety symbols and have read and understood the safety precautions.
- Begin an activity or investigation only after your teacher tells you to start.

2 Acting responsibly

- When you are told to do so, wear protective clothing, such as a lab apron and safety goggles. Always wear protective clothing when you are using materials or equipment that may be a safety problem.
- Tie back long hair, and avoid wearing scarves, ties, or long necklaces.
- Never chew gum, eat, or drink in your science classroom. Do not taste any substance.
- Handle equipment and materials carefully. Carry only one object or container at a time.
- Inform your teacher of any spills so they can be cleaned up properly.
- Wash your hands thoroughly after doing an activity or an investigation.
- Dispose of materials as directed by your teacher.
- If other students are doing something that you consider dangerous, report it to your teacher.

3 Working with sharp objects

- Always cut away from yourself and others when using a knife or scissors.
- Always keep the pointed end of scissors or any pointed object facing away from yourself and others if you have to walk with such objects.
- If you notice sharp or jagged edges on any equipment, take special care with it and report it to your teacher.
- Dispose of broken glass according to your teacher's instructions.

4 Working with electrical equipment

- Make sure your hands are dry when touching electrical cords, plugs, or sockets.
- Pull the plug, not the cord, when unplugging electrical equipment.
- Report damaged equipment, broken ground pins, or frayed cords to your teacher.
- Place electrical cords where people will not trip over them.

5 Working with heat

- Always use heatproof containers.
- Point the open end of a container that is being heated away from yourself and others.
- Do not allow a container to boil dry.
- Handle hot objects carefully. Be especially careful with a hot plate, even if you think it has cooled down.
- If you use a laboratory burner, make sure you understand fully how to light and use it safely.
- If you do receive a burn, inform your teacher, and apply cold water to the burned area immediately.

6 Working with chemicals

- If any part of your body comes in contact with a substance, wash the area immediately and thoroughly with water. Inform your teacher.
- If you get anything in your eyes, do not touch them. Wash them in the nearest eyewash station immediately and continuously for 15 minutes, and inform your teacher.
- If you are asked to smell a substance, never smell it directly. Hold the container slightly in front of and beneath your nose, and waft the fumes towards you.
- Hold containers away from your face when pouring liquids.

7 Designing and building

- Use tools safely to cut, join, and shape objects.
- Handle modelling clay correctly. Wash your hands after using modelling clay.
- Follow proper procedures when using mechanical systems and studying their operations.
- Use special care when observing and working with objects in motion.

