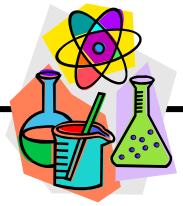
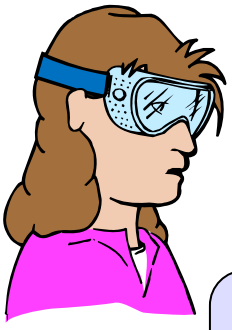
Safety in Science





Safety: Keeping yourself, other people, property and the environment free from harm.

Indoor Safety

Outdoor Safety

Indoor Safety

1. **Know the rules in your science classroom and/or lab**. They are usually posted on the wall. Teachers may provide students with copies. These rules are for your safety and the safety of others.

2. **Be aware of those around you.** Always be careful where you walk, sit or put things down. Watch out for the safety of those around you and help others when necessary.

3. **Always work carefully in a laboratory setting**. Do not make sudden or fast movements that may surprise others. Work carefully with dangerous equipment and materials, and always pay attention to what you are doing.

4. **Wear all the required protective clothing**. This may include lab coats, plastic glasses or goggles, gloves and/or masks. These are usually supplied by the school.

5. **Listen carefully**. Be aware of what is happening around you. Someone may need to get your attention in an emergency.

Outdoor Safety

1	**Planning**	Know where you are going and how to get there.
2	**Permission**	Have your parents/guardians sign a permission form.
3	**Respect**	Take care of the environment and the property of others at all times, and be aware of any rules about what you can and cannot do there.
4	**Information**	Make sure someone reliable knows where you are going, what you will be doing and when you should be back.
5	**Clothing**	Dress appropriately, e.g., dress in layers, wear protective footwear and headgear.
6	**Supplies**	Take all of the possible first aid equipment you may need.
7	**Personal Safety**	Carry identification, emergency contact numbers and a cell phone (if possible).

Chemical Safety Regulations

Workplace Hazardous Materials Information System (WHMIS)

WHMIS is a system designed to provide information about chemicals and other dangerous products in the workplace, and reduce the risks of using these products. It is governed by federal and provincial laws outlined in:

- *The Hazardous Products Act*
- *The Controlled Products Regulations*.

There are three main parts of WHMIS:

- labelling
- Materials and Safety Data Sheets
- training.

Labelling

WHMIS regulations require suppliers and distributors to use warning symbols on hazardous substances sold to Canadian workplaces.

WHMIS labels mark hazardous substances into one of seven groups:

1. Compressed Gas
2. Flammable and Combustible Material
3. Oxidizing Material
4. Poisonous and Infectious Material
5. Corrosive Material
6. Dangerously Reactive Material
7. Biohazardous Infectious Material.

Materials and Safety Data Sheets (MSDS)

WHMIS also requires suppliers and distributors to provide MSDS with hazardous substances they supply to Canadian workplaces. The MSDS give important information about substances, including how to use and dispose of them safely, and what to do in case of accidents.

Training

According to WHMIS regulations, workers who use hazardous substances must receive proper training to handle these products safely.

For more information, check out the Health Canada Web site:
http://www.hc-sc.gc.ca/hecs-sesc/whmis/

Household Hazardous Products Symbols (HHPS)

The **H**ousehold **H**azardous **P**roduct **S**ymbols are labels used to identify dangerous household chemicals as well as storage and use instructions.

The symbols are shown below.

	Danger	Warning	Caution
Corrosive (includes acids)			
Flammable (burns easily)			
Reactive (explodes or produces deadly vapours)			
Toxic (is poisonous to humans)			

Transportation of Dangerous Goods Act (TDG)

Just like WHMIS informs people about dangerous chemicals in the workplace, the *Transportation of Dangerous Goods Act* informs people about dangerous chemicals being transported.

TDG requires that when chemicals are shipped or transported, they must have proper:

- labels on containers
- placards (signs) on the vehicle transporting them
- shipping documents.