

Anthropogenic risk

Objectives:

- Get to know the concept of anthropogenic risk
- Explore the chemical risk
- Get to know the chemical risk symbols

STEP BY STEP

BEFORE STARTING

Hazards can be classified into 2 macro-categories: those of natural origin and man-made hazards.

Natural hazards are natural phenomena that have the potential to cause harm to people, property and the environment. Examples are volcanic eruptions, landslides, earthquakes, floods and avalanches.

Anthropogenic hazards arise from human activities that are potentially dangerous to human life and the environment. This definition also includes industrial activities where the hazard is a consequence of the activity and the substances that are used and/or held. When human activities require the use or storage of toxic flammable or explosive substances, one can speak of CHEMICAL HAZARD.

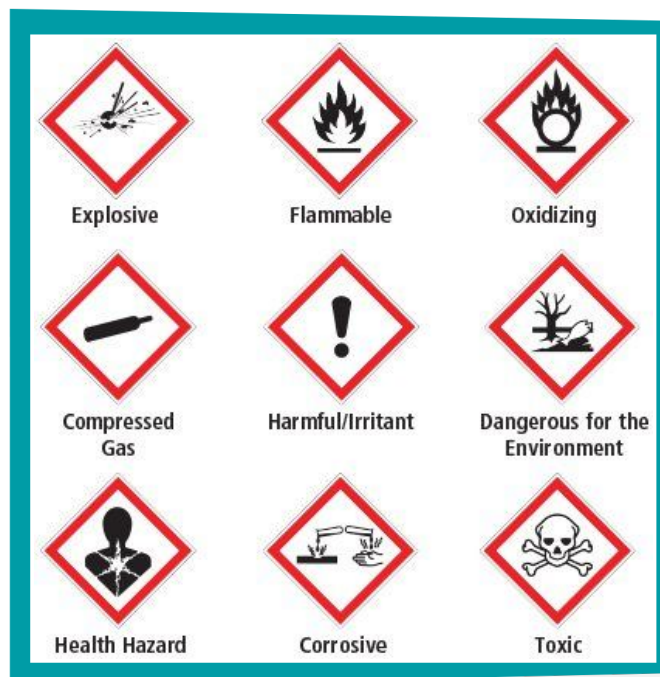
KNOWING HOW TO RECOGNISE THE RISK

The teacher introduces at this point the general definition of CHEMICAL RISK as in the [glossary](#):

the possibility that any chemical substance, regardless of its form, may cause physical harm and damage to the health of people or the environment.

The teacher asks the students to give some examples of objects that correspond to the above description.

Then, the teacher presents the class with the **types of chemical hazards** (see image below) and asks if they have seen or used anything with one (or more) of these symbols at home.



TYPES OF CHEMICAL RISKS

AND POSSIBLE EFFECTS

The teacher shifts the activity to the consequences of exposure to chemical risk. The discussion can be conducted through the following points:

- *What do you think your bodily reaction would be if you came into contact with a chemical?*
- *Have you ever seen a friend or family member in a similar situation?*
- *What do you think are the most dangerous objects or products in your home?*
- *Do you habitually use or touch them? Where are they stored?*
- *Exposure to dangerous chemicals can cause adverse health conditions.*

The teacher explains that chemicals can be commonly found at home, therefore it is important to understand how to use them correctly.

With the help of the teacher, the students make a list of all possible warning signs or symptoms after contact with chemicals. (Teacher's tip: headaches, breathing difficulties, skin irritation, severe allergic reactions, etc.). The teacher can conduct the activity using the quiz in this video:

THE CHEMICAL RISK AROUND US

The class is divided into four groups and each group is matched to one of the following places: *home - country - city - region*.

Each group will work together at home to carry out the following tasks:

- *With the help of the Internet, think about which are the most dangerous objects/activities/buildings that could cause or result in a chemical risk for the assigned location.*
- *Search for pictures, news, interviews (alternatively, you can interview an adult) about a significant chemical incident that occurred at the designated location and briefly describe how it was handled.*
- *Create a board, poster or Power Point presentation in which all the results of the research are represented.*

In class, all groups share the results of their research and explore the main potential risks associated with each location.

CONCLUDING THOUGHTS

With the help of the teacher, the class groups together the correct actions to take and those not to take to minimise and reduce the consequences of an event.