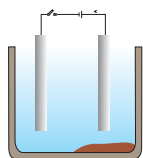


CHAPTER 3



Metals and Non-metals

In Class IX you have learnt about various elements. You have seen that elements can be classified as metals or non-metals on the basis of their properties.

- Think of some uses of metals and non-metals in your daily life.
- What properties did you think of while categorising elements as metals or non-metals?
- How are these properties related to the uses of these elements?

Let us look at some of these properties in detail.

3.1 PHYSICAL PROPERTIES

3.1.1 Metals

The easiest way to start grouping substances is by comparing their physical properties. Let us study this with the help of the following activities. For Activities 3.1 to 3.6, collect the samples of following metals – iron, copper, aluminium, magnesium, sodium, lead, zinc and any other metal that is easily available.

Activity 3.1

- Take samples of iron, copper, aluminium and magnesium. Note the appearance of each sample.
- Clean the surface of each sample by rubbing them with sand paper and note their appearance again.

Metals, in their pure state, have a shining surface. This property is called metallic lustre.

Activity 3.2

- Take small pieces of iron, copper, aluminium, and magnesium. Try to cut these metals with a sharp knife and note your observations.
- Hold a piece of sodium metal with a pair of tongs. **CAUTION:** Always handle sodium metal with care. Dry it by pressing between the folds of a filter paper.
- Put it on a watch-glass and try to cut it with a knife.
- What do you observe?

