
Reversible and irreversible changes

You will need:

- a burner;
- a fireproof mat;
- a pair of tongs;
- test-tubes;
- a test-tube rack;
- a test-tube holder;
- safety spectacles;
- samples of materials for heating.

What to do

- 1 Set up the equipment for heating substances. Place the burner on the fireproof mat.

Safety:

- all your group must wear safety spectacles;
 - never point a test-tube at someone when you are heating it.
- 2 Take one of the substances and heat it. You should hold it in the tongs. If you cannot hold it in the tongs, heat it in a test-tube.
 - 3 Watch carefully what happens and write down what you see in a table like the one on the next page.
 - 4 Allow the substance to cool and watch what happens. Write this down in the table too.
 - 5 In the fourth column, write down whether you think the change is temporary or permanent.
 - 6 Repeat using another substance.

Substance	What happens when it is heated?	What happens when it is allowed to cool?	Change