How do the lungs work?

Experiments:

To examine how the human lungs work by making a model.

Materials:

You will need:

- 1 large clear-plastic bottle,
- 2 pieces of equal sized plastic tubing,
- insulating tape,
- 3 small balloons,
- scissors.

Method:

1. Secure the two pieces of plastic tubing using the insulating tape.
2. Attach a balloon to an end of each piece of plastic tubing using the insulating tape.
3. Cut the end off a plastic bottle (you may need an adult to help you with this).
4. Place the balloons and plastic tubing inside.
5. Seal the plastic tubing into the neck of the bottle using the insulating tape.
6. Tie a knot in the third balloon.
7. Carefully cut it in half crossways.
8. Gently stretch the knotted part of the balloon over the lower end of the bottle and pull it around the sides.
9. Now hold the balloon by its knot.
10. The lower balloon represents the diaphragm. Pull it down as though you were inhaling.
11. Air from outside rushes in and makes the two balloons expand, just like the real lungs in your chest.
12. Release the knotted balloon as though you were breathing out. The air is pushed out of the lungs and tubing at the neck.

Find out more!

In the presence of CO_2, limewater turns milky and so is often used by scientists to test for the presence of CO_2.