



## Lungs - What do your lungs do?

### Fact

- Your lungs take oxygen from the air you breath in, for your body.
- The oxygen in the air is passed from the tiny tubes in your lungs called bronchials, into your blood and is shipped around your body.
- Your body uses oxygen and changes it into CO<sub>2</sub> (Carbon Dioxide).
- Your lungs also act as a full-time cleaner getting rid of the CO<sub>2</sub> from your body, which is exhaled out of your nose or mouth.
- Your lungs have no muscles. Your body uses your rib cage muscle called the diaphragm, to pull air into our lungs.

### Do you know

- All living things need oxygen to survive.
- You've got over 600 million tiny air sacs in your lungs called alveoli and if you laid them all out in front of you they would cover a tennis court.
- If you smoke a cigarette the tar and chemicals from the smoke clog up the tiny bronchioles and alveoli so it is really hard for your body to absorb oxygen.
- Air that we breathe is made up of thousands of gases. 78% is nitrogen gas, 21% oxygen, and the other 1% is made of carbon dioxide and other gases like methane and helium and so on.

### Experiments you can do

Next time you go swimming with an adult experiment with your breathing.

Take a big breath then bob down so that the water is covering your mouth. Breathe out slowly through your mouth and watch the bubbles that the air makes. Try it again letting all the air out at once and then again letting the air out slowly. Does it make a difference to the bubbles?

You can do the same experiment with a balloon instead. Take a big breath and blow into the balloon once. How much does the balloon inflate? That will give you some idea of how much air your lungs can hold.

### Other Investigations

Take a note of your breathing. When you breathe in, the air should fill your lungs deep down inside you. Your rib cage and the top of your tummy should rise up and expand as you breathe in. Now exhale gently and feel your rib cage lower back down again.

Try doing some strenuous exercise like running, jumping or handstands and cartwheels. What's your breathing like now? Do you breathe faster or slower? Why would you do that?