

# Groundwater 01

## How much do you know about groundwater?

Do you know where the water you drink comes from? In some areas of South Africa people get their water from under the ground. In these areas small amounts of rain water soak into the ground and collect in the cracks and spaces in the rock deep under the ground. We call this **groundwater**. Find the groundwater on this poster.

We can reach groundwater by drilling a borehole and pumping the water to the surface. Look at the poster for two ways that people pump water to the surface. Have you seen any other ways of pumping up groundwater?

It takes a long time for water to collect under the ground so we need to be careful not to waste groundwater and to keep it clean. What do you think happens in dry months when no rain falls to replace the water we pump to the surface?

## Make a groundwater model

Take a glass or clear plastic container and fill it with sand. Pour some water into the sand. This shows how water collects under the ground. Pour some more water into the sand. What happens to the level of the water? We call this top level of the water the **water table**. Take a drinking straw and put it down into the wet sand. The straw is like a borehole. Suck up some water. What happens to the water table now?



Did you know that the water you drank today could have been drunk by someone thousands of years ago? This is because water is part of a never-ending cycle. We call this the **water cycle**. Read the labels on this picture from 1 to 6 to find out more about the water cycle.

1. Rain falls from the clouds.

2. Some of the rain soaks into the soil and is used by plants. Some collects in puddles, rivers and dams.

4. Some of the water on the ground and in rivers, dams or puddles evaporates. It becomes a gas called water vapour.

3. A very small amount of rain soaks deep into the ground.

5. The water vapour rises up into the air.

6. High up in the sky it is very cold so the water vapour condenses. It forms clouds and rain. The water cycle starts all over again.

Groundwater does not stay in the same place. It moves very slowly downhill. In some places the groundwater is near the surface of the ground and the water comes out as a spring. Do you know anyone who collects their water from a spring?

Some of the groundwater we pump up and use could have been underground for hundreds or even thousands of years!

Groundwater fills up all the spaces and cracks in the rock.

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