



Water on the move

Science activity book · Year 4 · Unit 3

Name _____

Where is the water?

Almost three quarters of the Earth is covered by water. Most of it is **salt water**, in the seas and oceans. **Fresh water**, the kind we drink, is only a small part: it runs in rivers, rests in lakes, hides under the ground or lies frozen at the poles.



1 · Read and answer

Tom lives in Leeds. The water from his tap comes from a reservoir in the hills, goes through a treatment works and travels through pipes to his house. Where does the water from your tap come from? Why do you think it has to be cleaned before we drink it?

2 · Fill in the gaps

- The water in the seas and oceans is and we cannot drink it.
- Rivers, lakes and the ground below us hold water.
- At the poles, nearly all the water is frozen into .

3 · Draw and write

Draw a place near your home where there is water: a fountain, a river, a reservoir or the beach. Then write its name on the lines and what people use it for.

Solid, liquid and gas

Water changes state when it gets warmer or colder. Below zero degrees it turns into **ice**, which is a solid. When ice warms up it melts and becomes a **liquid** again. When water boils it turns into **steam**, a gas we cannot see.



1 · Observe

Put an ice cube on a plate and leave it on the table. Look at it every ten minutes for half an hour. What happens to the ice cube? What is on the plate at the end? Write down why you think this happens.

2 · Tick the true sentences

- ☐ Ice is water in its solid state.
- ☐ You can pick up steam in your hand.
- ☐ A puddle dries up because the sun makes the water evaporate.
- ☐ Water in the freezer turns into steam.

3 · Explain

When you cook pasta, steam rises from the pan. If you hold a cold lid over it, the lid fills with tiny drops. Where do those drops come from?

Make a rain gauge

A rain gauge measures how much rain falls in one place. Weather stations use very precise instruments, but you can make one from a bottle and keep a record of the rain for a whole week.



You will need

- A clean, empty two-litre plastic bottle.
- Scissors, a 20-centimetre ruler and sticky tape.
- A permanent marker and a handful of small stones.

Step by step

1. Ask an adult to cut the bottle where it starts to get narrower. Keep the top part: it will be your funnel.
2. Put the stones in the bottom. They stop the bottle blowing over in the wind.
3. Pour in water until the stones are covered and mark that level with the marker. That line is the zero of your rain gauge.
4. Tape the ruler to the outside of the bottle, so that the zero on the ruler sits exactly on the line you marked.
5. Turn the top part upside down and push it into the bottle, neck first. The funnel collects the rain and slows down evaporation.
6. Find an open spot in the playground or the garden, away from trees and roofs, which keep the rain off.
7. Every day at the same time, read how many millimetres the water has risen above the zero and write it in your record. Then pour the water out down to the zero line.

Continued

My record for the week

- Monday: millimetres
- Tuesday: millimetres
- Wednesday: millimetres
- Thursday: millimetres
- Friday: millimetres

Think

Which day had the most rain? Add up the five days: how many millimetres fell in total? Compare your result with a classmate who put their rain gauge somewhere else.

What I noticed
