

Water People Lesson Plan



Aim

To learn about the various people involved in providing the water we use in everyday life and what they do to get it to our taps.

Time requirements

Approximately 50 minutes

Resources

- Interactive water resource
- Whiteboard or projector

Activity 1

- clear jar and ruler

Activity 2

- string (needs to be thicker than thread)
- rocks /stones
- measuring cup
- large pan or sink

Learning objectives

To recognise those who are involved in providing our water and to observe, discuss and investigate where water comes from and its movement.

Curriculum Strands

SESE, Science – Energy and forces, materials

SESE, Science and Geography – Natural environments and environmental awareness and care

English – Oral language and reading

Maths – Numbers and data

Skills

Questioning, observing, predicting, investigating, counting and analysing

Links to Green-Schools

Step 3 Action Plan – experiments to help understand what a water person does

Step 6 Informing and Involving – all students learn about the people involved in getting the water to our taps

Vocabulary

Rain gauge, flow, hydrologist, inches, properties, cohesion and adhesion, gravity, molecule

Running the activity

- Looking at the journey of a drop in Section 2 ask the students to name people you may find along this journey that help get water to your tap (use Section 2 and write down their ideas as you go along).
- Go through some examples in Section 5.
- Do some rainfall and/or flow experiments as part of an hydrologist's job:

1) **Rain Gauge** – measure the amount of rain that falls from the sky

- Put a jar outside in an open area before it starts raining.
- After it stops raining, measure how many inches of rain are in the jar with your ruler.

2) **Water Flow experiment** – investigate the direction water flows (can it flow along a curved line? Can it beat gravity?) and its properties

- First, soak your string in water for a minute or two.
- Tie one end of the string onto the weight (a rock) and tie the other end to the handle of the measuring cup.
- Put the rock at the far end of a pan, stretching the string out as far as it will go and then slowly start pouring.
- The water will follow the string (some may spill).
- Play around; see how wide you can make the stream of water, how steep you can make the angle and if a heavier string will hold and attract more water.

Explanation

Water defies gravity in this experiment as it has some special properties, making it a very unique substance. It has both strong “cohesive” and “adhesive” properties. What this means is that water can stick to itself (**cohesion**) and other things (**adhesion**). When you soak the string and the water sticks to it that is adhesion. When you pour water along the string, water clings to other water molecules attached to the string, forming a little stream underneath, this is cohesion.

See Section 2 and Section 5 of the Water Resource

Questions:

- Why did it rain and how much water fell?
- How long was the rain gauge outside?
- What direction did the water flow in?
- Did the water stick to the string? How did it do this?

Go further

- You could explain a watershed and students could draw diagrams. Alternatively, you could make a watershed diagram and ask the children to put the labels in the correct place.
- Students could do individual or group projects on a water person.