

Year 4 Science

Where does rain go?

Australian Curriculum links: Year 4 Science

Earth's surface changes over time as a result of natural processes and human activity (ACSSU075)

Sustainability cross-curriculum priority

In this activity, students explore what happens to rain falling on different surfaces.

This activity was adapted from a [PrimaryConnections](#) Water works (year 2) activity published by the Australian Academy of Science.

Equipment

For the class

- water
- images of rain, drought, playing in puddles etc.
- 'Where does rain go?' worksheet (resource 1) enlarged or displayed on the electronic whiteboard
- sites (paved areas, sand, concrete, grass, soil, moss)
- [The water cycle](#) poster
- Optional: [The total water cycle management](#) poster

For each student

- paper cup with holes punched in the bottom or a class set of watering cans
- water bottle (filled with water)
- Where does rain go? worksheet (Resource 1)
- pencil, clipboard

Activity steps

1. Ask students to share their personal experiences with rain and with drought using images as a stimulus.
2. Display the worksheet (Resource 1) on the electronic whiteboard or show students the enlarged printed copy.
3. Explain that students will be working in groups to test the effect of water falling on different surfaces around the school. Before you start, ask students to predict what will happen on each surface. Students will fill in the worksheet after they have observed each surface.
4. Outside, point out some appropriate surfaces (paved areas, sand, concrete, grass, soil, moss) and groups choose three surfaces to investigate. They pour water on their chosen surfaces and record their observations on the worksheet.

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5. Back in the classroom, ask teams to share their observations and compare them with their predictions.
6. Students complete their conclusions and reasoning on their worksheet.
7. Discuss how the activity simulates what happens during rain (soaks in or runs off) and discuss questions such as:
 - What do you think happens to the water that soaks into the ground?
 - Where does it go?
 - Do you think we could collect this water and use it?
 - What do you think happens to water that runs off?
 - Where does it go?
 - Do you think we could collect this water and use it?
8. Conclude the activity by displaying 'The water cycle' poster and identifying where water is soaking in to the ground or running-off the ground. Introduce terms like infiltration and run-off.

Optional: Explore the 'Total water cycle management' poster with its man-made features. Identify the different surfaces in the poster and the pathways that water takes above and below ground.

Resource 1 Where does rain go?

Name:

Date:

Surface	I predict that water falling on this surface will ...	I observed that water falling on this surface ...



I found out that ...

I think this because ...