

Year 4: Science

Lesson Plan: The water cycle

Introductory activities (engage)

(5-10 minutes)

Have the class think about rain and water.

Ask:

- Where does rain come from?
- Where does the water go after it rains?
- Are there different types of water (think about where we find water)?
- What questions do you have about rain and water?

Use the questions as headings and group your answers under them on a flip chart or word wall

Where does rain come from?	Where does water go after it rains?	Are there different types of water
Clouds	On the ground	Drinking water
Sky	Puddles	Sea/salt water
Air	Rivers	River/lake/fresh water
Above	Lakes	Snow
Mountains	Oceans	Hail
	Tanks	

Lesson 1 (explore)

(10 minutes)

1. Display the Water Cycle Poster to your class.
Explain and discuss each step of the water cycle.
2. Explore or demonstrate the water cycle further by using appropriate video resources such as the one below from YouTube 'Met-Office-Weather'

<https://www.youtube.com/watch?v=zBnKgwnn7i4>

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Materials	Quantity
Internet access	1
Smart board (or other display option)	1
Water Cycle Poster	1
Activity 1 (colouring-in)	1 each
Activity 2 (collage)	1 each
Activity 3 (role play)	1
Experiment - Build a mini water cycle	1
Experiment – Plastic bottle water cycle	1

- a. From the following list give each student three key words to listen for; evaporation, condensation, precipitation, collection, cycle, repeats, sun, heat, gas, vapour, cools, clouds, water droplets, rain, hail, snow, sleet, form.
 - i. Ask students to volunteer information about one of their words.
 - ii. Have students identify words that they still find difficult to understand.

Options for assessment and extension

	Option 1	Option 2
Science – Content Description Individual Activity	<p>Students design and label the water cycle diagram provided, or create their own.</p> <p>Refer to Activity 1 – Water cycle colour-in.</p> <p>Refer to Blank character worksheet to students to draw their own water cycle.</p>	<p>Students create their own Water Cycle collage on a paper plate. The paper plate rotates to demonstrate the water cycle is continuous.</p> <p>For instructions and materials refer to : Activity 2 – Water cycle collage.</p>
LEARNING AREA – Content Description Class Group Activity	<p>As a class group create your own role play version of the water cycle.</p> <p>Refer to Activity 3 - Water cycle role play.</p>	

Experiments

	Option 1	Option 2
Science Inquiry – Planning and conducting Class/Group Activity	<p>Build a mini water cycle.</p> <p>N.B. As a teacher decide how you will organise for the safe use of hot water.</p> <p>Using everyday items (large clear glass bowl, ceramic mug, cling wrap and masking tape) build your own mini water cycle with hot water and ice.</p> <p>Ask students to predict what will happen when the ice is added to the experiment.</p> <p>Refer to Experiment – Build a mini water cycle.</p>	<p>Build a plastic bottle water cycle.</p> <p>Using everyday items (heat proof jug, 2 litre plastic bottle and knife/scissors) build your own water cycle with hot water and ice.</p> <p>Ask students to predict what will happen when the ice is added to the experiment.</p> <p>Refer to Experiment - Plastic bottle water cycle.</p>

Elaborate and review

As a class - review the flip chart or word wall from the introductory (engage) activity.

Ask students:

1. What have you learnt?
2. What words or extra information can be added?
3. What would you like to explore further?

Refer to the water cycle poster

1. Where in the water cycle does the water change forms?
 - liquid to vapour (evaporation).
 - vapour to liquid (condensation).