

Lesson 1

Water Water Everywhere

This first lesson is a general introduction to the topic of water under the following headings: Forms of Water, The World's Water, The Water Cycle, Water for Life and Water Conservation.

LESSON SUMMARY

Geography
Ages: 10 to 11
Lesson time: 45mins

DOWNLOADS & ADDITIONAL RESOURCES

Experiment: Liquid to Solid
Experiment: Steam
Experiment: Wasting Water
Activity Card (Lesson 1)
Whiteboard: Quiz and Questions (Lesson 1)

 Downloads and Additional Resources can be found in the Resource page of Somethingfishy.ie

LESSON OBJECTIVES

To make pupils aware of the fact that there is only one body of water on the planet and that all forms of life depend on water for existence.

TEACHERS GUIDELINES

The lesson could commence with a general discussion on water and its many uses. This should naturally lead to an investigation of the different forms of water: liquid, solid, gas.

Water as a liquid comprises of water in streams, rivers, lakes and seas. Water as a solid comprises of ice. By doing an experiment making ice in a bottle, pupils will understand that low temperatures are required for freezing and that water expands when it is frozen.

SEE:-  Experiment: [Liquid To Solid \(Download\)](#)

Water as a gas is probably a more difficult concept. However, doing the experiment What is Steam? should help to explain the concept to the pupils.

SEE:-  Experiment: [Steam \(Download\)](#)

The World's Water

Pupils will be amazed by the distribution of water on earth. A map of the world could be consulted to form a concept of this distribution. By studying the diagram, pupils will become aware that 97% of the water on earth is salt water and 3% is fresh water. However, we cannot use all of the 3% as 3/4 of this is tied up in permanent ice at the North and South Poles. Another 15% of what remains is underground and difficult to reach, so 1/3 of 1% is available for humans, plants and animal.

The Water Cycle

The Water Cycle is introduced to enable pupils to understand that there is only one body of water on this planet. This one body is made up of ground water and surface water. This water is continually being recycled. The Water Cycle diagram on the pupil's activity card 1B will help to explain this process of recycling and the concepts of evaporation, condensation and precipitation. Setting up a Garden in a Bottle will further explain these concepts.

Water for Life

This part emphasises that all forms of life depend on water for survival. Emphasis is placed on human needs and the make-up of the human body. About 2/3 of our bodies are made up of water.

Water Conservation

Since there is only one body of water on planet Earth, pupils should be encouraged to be respectful and careful of how water is used.

By doing the experiment Wasting Water, pupils should be more conscious of the need to conserve water. The following experiment should reinforce this.

SEE:-  **Experiment: [Wasting Water \(Download\)](#)**

REVISION

Two different types of revision material accompany this lesson; activity cards and whiteboard material. The activity card is a 4 page document that is filled out by the pupils to test their knowledge of the lesson taught. The teacher can decide if the activity card is filled out individually or in teams

SEE:-  **Activity Card: [Lesson 1 \(Download\)](#)**

The whiteboard resource tests the pupils knowledge of the lesson taught. Pupils are encouraged to actively engage in answering questions relating to forms of water, the worlds water, and the water cycle.

SEE:-  **Whiteboard: [Quiz and Questions, Lesson 1 \(Resource\)](#)**

AT THE END OF THE LESSON, PUPILS SHOULD KNOW

- 1 The three different forms of water.
- 2 How the world's water is distributed.
- 3 How the Water Cycle works.
- 4 The importance of water conservation.