

Experiments With Water

Class – V

EVS

Unit - 7

LEARNING OBJECTIVES:

To develop curiosity about environment,

To develop skills like experimenting, observation, recording, interpreting and recording.

GIST: Forms of water, sinking and floating, Substances that mix with or dissolve in water, measuring volume of water.

Classroom Activities

Sink or Float:

Students are asked to guess whether various given objects will float or sink in a bucket of water e.g. stone, needle, iron nail, pebble, bottle cap, pen cap, pencil, eraser, match stick, paper, leaf, candle, tennis ball, plastic lid, bolt, aluminium foil. They can also predict which objects will float or sink quickly or slowly and which will float somewhere between.

A table of observation is drawn to record all the observations.

The teacher can help them understand concepts of density, weight and volume to explain these phenomena.

Dead Sea experiment:

A small toy is dropped into a glass of water, it sinks. Students are asked to dissolve salt in water and observe what happens. The experiment can be repeated with potato and lemon . Students are told to add enough salt to make the objects remain floating in between (semi-submerged). As the density of water is increased by dissolving salt, the object (lemon as in below picture) comparatively becomes less dense and hence floats.

This experiments can be used to explain the concept of density.



Make layer of float:

Teacher takes a test tube, water, oil, food colour and washing liquid. Students pour water and oil into the test tube, followed by the food colour and washing gel. Through this experiment, we can explain that all liquids do not mix with each other. This experiment can also be related to the concept of density.

Soluble and insoluble:

Students can try to dissolve different substances in water - salt, sugar, sand, chalk powder, oil, glucose powder, milk, food colour additive, turmeric powder, etc.

An observation table can be drawn to record the observations and conclude whether the substance is soluble or insoluble.

This can be used to explain the concept of solubility and insolubility.

Milk Test:

Take a rectangular piece of glass put two drops of milk on it, keep the piece of glass in sliding position for some time. The drops will slide down fast if it is mixed with water. We can note down the timing of the each sample of milk, to compare dilution of different milk with water. We can also compare the milk with drops of water.

This can be used to explain the concept of viscosity and how it varies from density.





