

Water magic

Grade Level: K-4

Overview This activity will introduce new vocabulary and will serve as a building block to future lessons on the water cycle. Children will use experiences from their everyday lives to practice the required skills.

Purpose This activity is designed to help students understand that water picks up natural and man-made substances as it moves over and through the earth. Students will observe and experiment with water in three physical forms.

Objectives Students will be able to:

- i. Observe water in different physical forms
- ii. Explain what happens in the evaporation process, and
- iii. Observe residues left after water evaporates.

Resources/Materials Small plastic glasses or jar Balance scale Tea kettle, hot plate Mirror, Rulers.

Activities and Procedures

- i. Show the children an ice cube, or provide each child with an ice cube in a cup.
- ii. Ask the children what the cube is made of and ask them to put them in the glass and observe what happens.
- iii. When the ice has melted, discuss the difference between the solid form of water and the liquid form.
- iv. Have the children leave their glasses of water on a shelf and ask them what they think might happen.
- v. When the water has evaporated, discuss with them what has happened and compare this to their answers to what they thought would happen in step IV.
- vi. Observe the sides and bottom of the glasses and, if necessary, compare them to a new glass.
- vii. Discuss with them where the film came from that is left on the sides and bottom of the glass.
- viii. Heat water in the teakettle and, when boiling, hold the mirror over the opening in the spout and observe what happens. [CAUTION]
- ix. Discuss with them how water becomes steam and is able to move into the air.

Tying it all together Water exists in three forms, solid, liquid, and gas. The change from one form to the other will depend on the prevailing conditions:

Ice-----plus heat-----Water----- plus heat-----Gas

The reverse order will take place if heat is removed.

Gas-----minus heat-----Water-----minus heat-----Ice

Assessment Have the children draw the things that they observed. Have the children describe the three physical forms of water and compare and contrast them. Test the knowledge of the children on the following vocabulary words: Solid, Liquid, Gas, Vapor, Absorb, Evaporation.

Suggestions/Modifications

- Students may keep a daily weather journal in order to chart the different forms of water in the air.
- Students may make a word search puzzle using the vocabulary words.
- Students may make a diagram of the different forms and properties of water.

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