The Water Cycle

Grade Level: 2-4

Overview The water cycle explains the sun heating the earth's surface water so that it evaporates. This vapor gathers in clouds, which rise to the cold air. When those clouds become too heavy to float, they release their moisture as precipitation. The precipitation collects in lakes or oceans after siphoning through soil or running down rivers. It then evaporates and repeats the cycle once again.

Purpose The purpose of this activity is to clarify the commonly used term Water Cycle

Objectives Students will be able to:
i. Explain how the water cycle recycles the earth's water supply.
ii. Make use of the knowledge of landforms learned in social studies.
iii. Form a hypothesis on how/why the water cycle works.
iv. Use language arts skills of writing and drawing to explain how the cycle works.

Resources/Materials Assemble these materials:
soil
water
small margarine bowl
large, clear plastic container, or an old aquarium
plastic wrap
plastic trees, animals, boat, etc. are optional
tape or large elastic band
bag of ice (optional)
heat lamp (optional)

Activities and Procedures

i. Arrange the soil in the container to make mountains, plateaus, hills, etc., and a lake basin. Place the margarine bowl in the lake basin. Fill the bowl with water. The plastic toys may be added to appeal to the children's imaginations. Cover the container tightly with plastic wrap and secure it by means of tape or the band. Place in direct sunlight.
ii. Let the children discuss what they think might happen in the container. Take that as a hypothesis. The children should draw the set up.
iii. Depending on the amount of sun, the project may take 1-3 days. In order to speed the process, a bag of ice may be placed on one end of the covered container, while a heat lamp is focused on the other.
iv. Watch for condensation on the plastic "sky" of the container. When enough moisture collects, it will fall onto the landforms as precipitation. v. Compare the

hypothesis to actual results by discussion.
vi. Encourage the children to draw the water cycle using arrows to show the flow.
vii. Ask the children to write a paragraph explaining their picture. A word bank might be used if needed. Possible words for the bank are: condenses (cools), vapor, clouds, evaporate, precipitation (rain/snow), heavy, soil, oceans, lakes. Try to elicit these words from the students.

Tying it all together The term water cycle describes what takes place when water evaporates from land surface, rise up into cooler areas of the sky, gets cooled, and then comes down as rain. The cycle phenomenon is easily deduced. It is water which moves in the cycle hence it is called water cycle.

Assessment What do the children consider to be the most important element in the Water Cycle? Encourage them to give reasons.

Suggestions/Modifications

- Students may draw the activities that happen in the model daily and chart the changes.
- Students may write stories about the different types of condensation and how they affect daily life.
- Students may draw diagrams of the water cycle.

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