Introduction to the Water Cycle

Summary

This lesson is an introduction to the water cycle present in all areas of our world.

Time Frame

1 class periods of 45 minutes each

Group Size

Large Groups

Life Skills

Thinking & Reasoning, Communication

Materials

- video Water, A Gift of Nature (available through Project Wet) - audio recordings of water sounds - Copy of the Water Cycle Journey (script found on pg. 159 in Project Wet) - Diagram of the water cycle (found on pg.121 in Project Wet) - Handout of diagram and vocabulary with definition - Science Journal

Background for Teachers

This lesson will present the water cycle in a real life visual video. Water is essential for life on Earth; it makes up 75 of all living things. It is one of the few substances that occur as gas, a liquid, or a solid. As it changes form it travels throughout the world in the water cycle. It helps create both local weather and climate patterns. Water travels through the cycle as the sun heats the earth's surface water and land, so that it evaporates. This vapor rises into the atmosphere, condenses and forms clouds. When these clouds become too heavy to float, they release moisture as precipitation, in the form of rain, snow, hail, and sleet. The precipitation collects in lakes or oceans after siphoning through soil or running down rivers. It then evaporates and repeats the cycle once again. Because of the nature of the water movement, a water molecule can be used over and over again throughout the centuries. The water you drink today could have dribbled down the back of a dinosaur, been locked up in a glacier during the last ice age, spent years in the ocean depths, or floated in a cloud over ancient Egypt! The Great Salt Lake plays a major role in the weather in surrounding areas

Intended Learning Outcomes

Explain the processes of melting, precipitation, evaporation, condensation, and percolation involved in the water cycle. They will identify changes in states of water that enable water to move through the water cycle.

Instructional Procedures

Present students with background knowledge stated above. Pass out handouts highlight and review vocabulary and diagram. State objectives for watching the video are to help students understand the vocabulary and diagram. Show video Discuss the water cycle, review vocabulary, presented in handouts Stimulate complex thinking, real life connections through various questions When water from a puddle dries up where does it go? What causes the water to dry up? What determines whether precipitation will fall as rain or as snow? Do all clouds give off precipitation? Why? What is the role of the sun in the water cycle? How does the water get into the atmosphere? Have you ever seen dew in

the morning collected on the grass? Then later in the day the dew has disappeared. Can you explain this? The Great Salt Lake does not have any water outlets, how does water leaves the lake? Students will label and color their water cycle diagram. Closure activity -Ask students what it would be like to travel with water as it moves through the water cycle? -Tell students you are going to take them on a journey through the water cycle with their imaginations. They should sit quietly and may wish to close their eyes. You will be relating ideas and events and they should create pictures in their mind. -Begin the tape of water sounds and start reading the script, Water Cycle Journey For review. Ask the students where they went on their journey and how did they get there? Have students write a story in their science journal about a drop of water going through the water cycle.

Extensions

Once the students have some background knowledge I would show other diagram of the water cycle, search internet sites, and have them draw their own diagram. This lesson is an introduction and is intended be followed up with a lesson on the "Great Salt Lake -- Lake Effect -- Greatest Snow on Earth."

Assessment Plan

Labeling of the water cycle diagram accurately including all the new vocabulary words. Observe and assess student participation in class discussion.

Bibliography

Montana State University, Project Wet Curriculum & Activity Guide (The Watercourse and the Council, 1995) pgs. 121 and 159

Authors

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