Incredible Journeys

Mountain Wilds to Wetland Wonders

NOTE: This lesson plan is a revision of *The Incredible Journey* in **Project Wet**. It has been adapted to fit the needs of the Mountain Wilds to Wetland Wonders field trip.

Summary: With a roll of the die, students simulate the movement of water within the water cycle.

Objectives: Students will

- describe the movement of water within the water cycle.
- identify the states of water as it moves through the water cycle.
- describe the importance of water to wildlife and plants.

Materials:

- nine dice
- string and nine boxes of beads
- nine "water station" signs

Background: See "The Incredible Journey" Project Wet Curriculum Guide

Vocabulary:

- condensation – the process by which water vapor becomes liquid; opposite of evaporation
- evaporation – the conversion of liquid into a vapor usually through the application of heat energy; opposite of condensation
- transpiration – the process by which water is absorbed by plants (usually from the roots) is evaporated into the atmosphere from the plants surface (principally through leaves)
- water cycle – the path water takes through its various states – vapor, liquid, solid – I takes as itt moves throughout Earth's systems

Warm Up:

1. Tell students they are going to turn into water droplets and go on an incredible journey through the water cycle. On their journey they are going to stop at many different places where water is stored.
2. Have students brainstorm locations they may visit (groundwater, lakes, rivers, oceans, glaciers, soil, animal, plants, cloud)
3. Review the rules of the incredible journey.
    a. There are nine water stations set up. You may not get to each one.
    b. At each station there is a dice, a box of beads and a sign for the station.
    c. When you get to a water station, line up, pick up and string a bead, roll the die and follow the instruction on the die. If the die tells you to stay, pick up another bead and add it to you string.
4. After the students understand the rules of the incredible journey, introduce the string and beads as the map to their journey. When they are done, they will a water cycle map that can turn into a bracelet and will remind them of all the places they have been.
5. Pass out the string. As you pass out the string to each student, tell them what water station they begin at. While they are waiting for the classmates to get their string, they should tie their first bead to the string as a stopper.

Activity:

1. Station as many adults at the stations as you have to help direct students and help them remember the rules.
2. Let the kids travel through the journey for 10-12 minutes.
3. When you call time, have students assist each other in their bead journey map into a bracelet.

Conclusion and Discussion:

1. How many of you feel you did not get to finish?
2. Does the water cycle ever finish?
3. How many of you got stuck somewhere? Does that really happen in nature?
4. Where was the only place you could if you were in the ocean? How did you get there? (evaporation, clouds)
5. Where were some other places you moved to and from and how did you get there?