Water Cycle Bracelet Activity

**Activity Summary:** Six stations will be set up, each representing a stop in the Great Salt Lake water cycle. During the activity, students will pretend that they are a water molecule in the cycle. They will move actively from one station to the next through the rolling of dice. As each student moves from station to station they will collect beads to form a bracelet that serves as a visual representation of their journey.

**Learning Outcomes:** Students will learn about the various components of the Great Salt Lake water cycle, the ways in which water might flow through the cycle, and the importance of the water cycle to living things.

**Appropriate Student Population:** Applies to 4th grade curriculum in the state of Utah, but all ages (even teachers) can enjoy this activity.

**Time Required:** 15-30 minutes

**Facilitation Guide:**

- **Materials**
  1. Six water station cards: Animal, Great Salt Lake, River, Plant, Groundwater, and Cloud. These cards are available in the “Accompanying Resources” for this activity on the GSLI web page.
  2. Dice. At least one di for every two students.
  3. Pipe cleaners. Enough that each student can have one. (Available at any craft store.)
  4. Circular beads that can slide easily onto the pipe cleaner. This will form the bracelet. There should be a color that corresponds to each station in the cycle.

- **Setup**
  1. Print out the water station cards and place them around the activity space. Placing them in a large circle works well. Note: If you are doing the activity outside or at the Great Salt Lake, you may want to laminate the cards.
  2. At each station, place a container full of whichever color of bead you have chosen to correspond with that stop in the cycle.
  3. Disperse the dice evenly among the stations.
  4. Have pipe cleaners ready to give to each student.

- **Pre-Assessment**
  1. Get a sense of student familiarity with the water cycle. If in a classroom setting, you may ask students to pair off and write their own definitions of the water cycle. Then a few volunteers can share their definitions with the class. If not in a classroom setting, an open question to the group is fine.
  2. Ask students for ideas about why we haven’t run out of water, even though plants and animals consume so much of it to survive. If necessary, explain that cycles transfer an item from one place to another, but that the item itself doesn’t go away.

- **The Activity**
  1. Explain to students that they are about to become water molecules and travel around through the water cycle. At this point in time, it may be helpful to ensure students understand a few key terms like “evaporation” and “aquifer”.

**This activity was adapted by Bridger Layton from its original form in the Project Learning Tree PreK-8 Activity Guide.**
2. Give each student a pipe cleaner, and have them bend the bottom end of it so that it will hold beads placed on from the top.

3. Explain that the six cards around them each represent a stop in the Great Salt Lake Water cycle, then divide students into six roughly equal groups, and place one group at each station.

4. Once students are at the station, explain that they will roll the di to determine where to go next. Tell them that each time they roll the di they should collect a bead from wherever they go next and add it to their pipe cleaner. Sometimes students will stay in one station for multiple rolls. They should still take a bead for each roll. For instance, if a student rolls a "1" at the Great Salt Lake Station, they will stay at Great Salt Lake, but should still take another bead for their bracelet.

5. Let students move through the cycle until everyone has had the chance to visit all the stations at least twice. This may take 5-15 minutes depending on group size.

6. Bring the students back together and show them how to form their new bead-covered pipe cleaner into a bracelet.

- Post-Assessment

1. Optional: Have students write a short story (about a paragraph) about their experience as a water molecule. Several students can share their stories. Example: “I was a lonely water molecule frozen in a glacier on top of a mountain. When the spring came and the ice thawed, I melted into a stream. Down the mountain the stream roared going over large boulders. After the long journey I reached the ocean” (Example quoted from Project Learning Tree).

2. Optional: Use a white board to write the names of the six stations, and ask students to share how they got to a particular location. For instance, if you begin with the cloud station, responses may include “evaporation from the Great Salt Lake”, “breathed out by an animal”, “evaporated from a river”, etc. As students respond, draw arrows from one location to the next, and write the method of transfer next to the arrow. The flow of water will begin to appear visually on the board. Explain the visual to the students.

3. Prompt the students with the following questions:
   - Were you surprised by anything during the activity? Why was it surprising?
   - Was there anything similar about the journeys that different water molecules took?
   - Can you think of any other stops in the water cycle that weren’t included in the game? (Snow, puddles, reservoirs, etc.)
   - What might happen if all of the water stayed in one place? If it was all in the clouds, or all in the ground?
   - Is the water cycle important for plants and animals? (Yes. It moves water around and makes water accessible to them.)

**This activity was adapted by Bridger Layton from its original form in the Project Learning Tree PreK-8 Activity Guide.**