Water Cycle Act Out

Objective: Campers will understand the water cycle, including why water is more likely to gather in certain areas than in others, and what factors cause water to become gaseous, liquid, solid, or trapped within rock.

Age: 8 - 15

Time: 15 – 20 minutes

Materials: Station directions, one scorecard per student, pencils, at least one 6-sided die per station, activity area with seven stations, and a large poster of the water cycle.

Directions:

1. Before starting the activity review the water cycle. If possible, draw a diagram of the water cycle and have volunteers label the different parts, or have them attach terms to a blank water cycle poster.
2. Tell the group that you are going to play a game in which everyone gets to be a water molecule. Make sure everyone understand what a water molecule is.
3. Pass out the scorecards and pencils and have the group split themselves up evenly between the stations.
4. At each station they should roll the dice and record their current location, what happens, and their destination on their scorecard. They should then go to the next station and continue the activity until their scorecard is filled up.

Discussion Questions:

1. Did all the water molecules take the same path?
2. Do you think the diagram we went over before the activity is a good way to represent the water cycle? Is it more than just a single circle, or does the water cycle have many different branches?
3. Did anyone get stuck at a station for multiple turns? Where and why?
4. Were there stations that tended to have a lot of water molecules? What about stations that didn’t get as many visitors?
5. Are there any parts of the water cycle that weren’t included in the game?
6. What caused water molecules to move between stations? (gravity, sun, wind?)

Standards Addressed:

Science: 4.2.1.2.1, 4.2.1.2.2, 4.3.2.3.1, 6.1.3.1.1, 8.3.2.1.3, 8.3.2.3.1

Language Arts:

Math:

Social Studies:
# Water Cycle Act Out – Score Card

<table>
<thead>
<tr>
<th>Station</th>
<th>What Happens</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Cloud</td>
<td>Fall as rain</td>
<td>Ocean</td>
</tr>
</tbody>
</table>

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Source: Project Learning Tree
Station 1—Cloud

1. You fall as rain onto an ocean. Go to Ocean.
2. You fall as rain onto an ocean. Go to Ocean.
3. You fall as rain onto a stream. Go to Stream.
4. You fall as snow onto a Glacier. Go to Glacier.
5. You fall as snow onto the ground. Go to Groundwater.
6. You fall as rain onto a parking lot. Go to Stream.

Station 5—Groundwater

1. You move slowly downward and become part of an aquifer. Stay at Groundwater.
2. You move slowly downward and become part of an aquifer. Stay at Groundwater.
3. You move slowly underground between grains of sediment and eventually flow downward into a wetland and from there into a stream. Go to Stream.
4. You move slowly underground between grains of sediment and eventually flow downward into a wetland and from there into a stream. Go to Stream.
5. A plant takes you in through its roots. Go to Plant.
6. You are pumped out of the ground from a well to irrigate a farm. Go to Plant.

Source: Project Learning Tree
Station 3—Ocean
1. You are one of countless water molecules in an ocean and you stay there. Stay at Ocean.
2. You are one of countless water molecules in an ocean and you stay there. Stay at Ocean.
3. You are one of countless water molecules in an ocean and you stay there. Stay at Ocean.
4. You are one of countless water molecules in an ocean and you stay there. Stay at Ocean.
5. You evaporate into the air. Go to Cloud.
6. You evaporate into the air. Go to Cloud.

Station 4—Stream
1. You evaporate into the air. Go to Cloud.
2. You evaporate into the air. Go to Cloud.
3. An animal comes to the stream and licks you up. Go to animal.
4. You continue rolling downhill and become part of an ocean. Go to Ocean.
5. You continue rolling downhill and become part of an ocean. Go to Ocean.
6. A human drinks from the stream. Go to Animal.

Source: Project Learning Tree
Station 2—Glacier
1. You evaporate into the air. Go to Cloud.
5. You melt and become part of a stream. Go to Stream.
6. You break off from the glacier and fall into the ocean. Go to Ocean.

Station 6—Animal
1. After using you to process food, the animal urinates and you end up in the ground. Go to Groundwater.
2. After using you to process food, the animal urinates and you end up in the ground. Go to Groundwater.
3. You are exhaled from an animal’s lungs into the air as vapor. Go to Cloud.
4. You are exhaled from an animal’s lungs into the air as vapor. Go to Cloud.
5. A person uses you for brushing his or her teeth and you end up going through a sewage treatment plant and then put into a stream. Go to Stream.
6. After using you to quench their thirst, a person urinates and you end up going through a sewage treatment plant and then put into a stream. Go to Stream.

Source: Project Learning Tree
Station 7– Plant

1. The plant transpires you through its leaves and you evaporate into the air. Go to Cloud.
2. The plant transpires you through its leaves and you evaporate into the air. Go to Cloud.
3. The plant transpires you through its leaves and you evaporate into the air. Go to Cloud.
4. The plant uses you to grow. Stay at Plant.
5. The plant stores you in its edible fruit. Go to Animal.
6. The plant stores you in its edible leaves. Go to Animal.

Source: Project Learning Tree