

Valentine's Day Water Cycle Bracelet Incredible Journey

Objective: Educating students on the water cycle, water forms and water uses.

Curriculum grade: 2nd- 6th

Program Outline:

The station will begin with an introduction to water and its form. The facilitator will introduce students to the water cycle with the aid of posters and discussion. Students will then play the water cycle bracelet game where they will form a bracelet in the shape of a heart. Another discussion will follow on the uses of water and on water conservation.

Materials:

Water Cycle poster
Station Name Paper Slips
Multi- colored pony beads
Plastic cups for beads
Plastic bowl for station name slips
Pipe cleaners
9 Water station cards
Tape
Scissors to cut station name slips

Set up:

Have poster ready for viewing. Have stations set up with station cards, fold station name slips and place them in each station bowl and put beads in cups.

Duration:

20-30 minutes

Presentation:

Can anybody tell me what water is?

Water is a chemical substance made up of two atoms bonded together (hydrogen and oxygen) that sustains or gives life.

Where do we find water?

Oceans, lakes, faucets... Oceans make up the largest bodies of water. Over 70% of the earth's surface is covered with water.

Do you think all water is liquid like the pond?

No, water comes in different forms such as solid and gas. Solid water is known as ice and gaseous water is known as steam.

Water will go through these different forms or stages and this becomes known as the water cycle.

Let's talk about the water cycle. The earth has a limited amount of water. Water keeps going around and around in a cycle. (Use poster) Water will go through many forms. It may begin as a liquid such as the ocean. When the sun heats the liquid water, it begins to evaporate into a gaseous state. This stage of the cycle is called evaporation. Evaporation is when the sun heats up water in rivers or lakes or the ocean and turns it into vapor or steam. The water vapor or steam leaves the river, lake or ocean and goes into the air. As the gaseous water rises into the sky it begins to collect in the clouds. This collection is called condensation. During condensation, the gas-like water turns back into a liquid state. Once it fully turns back into liquid, what do you think happens? Yes, it begins to fall in the form of rain, snow, hail or sleet! This stage is known as precipitation. When the liquid water falls to the ground or ocean it is called collection. Then the cycle begins again. So let's review, the sun will heat the water in the pond. Soon some of the water will turn into gas, this is called evaporation. Once it reaches the sky, it begins to collect in the clouds and slowly turn back into liquid, this is called condensation. When the water completely turns back into liquid, it begins to rain. What is this stage called? Right, precipitation. As the water falls back to earth, it collects and the cycle begins again.

Now do you think water molecules always move in this cycle?

No, sometimes water molecules can stay in one place for a very long time or move back and forth from one place to another. For example, think of the glaciers. Some of those molecules have been frozen in a solid state for many years.

Activity:

Tell students that they are going to become water molecules moving through the water cycle and that they will create a heart shaped bracelet to represent their journey.

Categorize the places water can move through the nine stations: clouds, plants, animals, rivers, oceans, lakes, groundwater, soil, and glaciers.

Give each student a pipe cleaner and form it into a shape of a heart. Have students choose a station to begin.

To begin, have students pick a station they would like to begin with. Have students line up behind that station and pick up a bead to add to their heart shaped pipe cleaner. Students will then choose a folded station name slip that will indicate which station they will travel to next. When students arrive at the next station, they will repeat the same actions (pick up a bead to add to their pipe cleaner and pick a folded station name slip). Students should take one bead for each time they visit a station and may stop once they have reached at least 7 stations.

Play game and regroup for discussion.

Now that we are done with our water cycle journey can anyone tell me what stations they traveled to and why? Water can travel from station to station through precipitation, condensation etc.

Now that we are familiar with the water cycle, can anyone tell me some ways we use water? Drinking, bathing, cooking, cleaning, swimming... We use water in many different ways don't we? It is important to remember that there is a limited amount of water on earth. Although most of the earth is covered with water, this does not mean that all of it is safe to drink. We must learn to save or conserve our clean, drinking water.

Now that you have created your heart shaped bracelet what are some reasons you love water?

We love water because it gives us life, is essential for humans, plants, and animals, and keeps our ecosystem thriving!