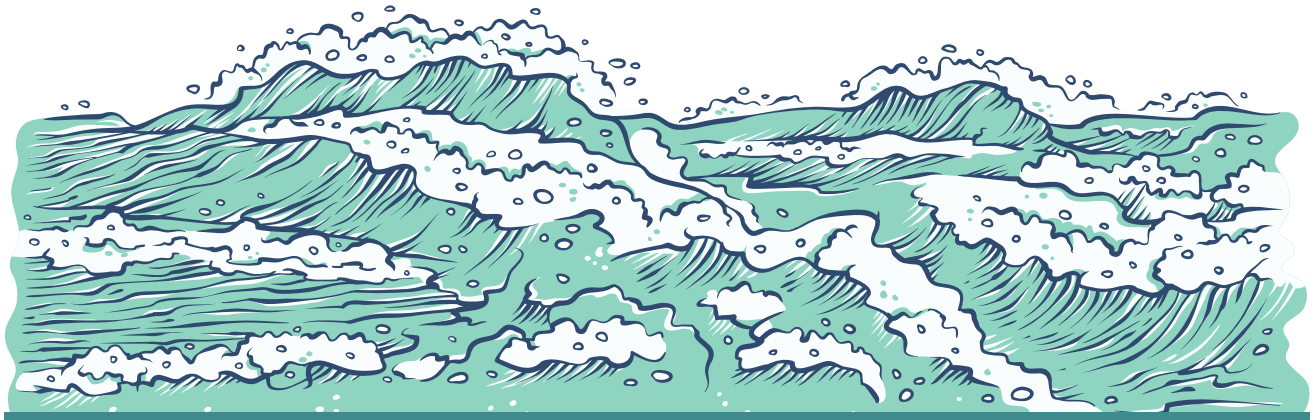


Stewards of the Sea

THE SCIENCE OF WATER CYCLES

Grades: 3-5

Background: The water cycle water cycle is how water evaporates from the surface of the earth, rises, cools and condenses into rain or snow in clouds, and falls again to the surface as precipitation.

Objective: Students will create their own mini-water cycle and observe it in action.

Sources: The Water Project and NASA

The Water Project

Make a mini water cycle!

We know that water can be a liquid, a gas, or a solid. Outside, water is always changing from liquid to gas and back again. This process is called the water cycle. You can see how the water cycle works.

The Water Cycle

You will need:

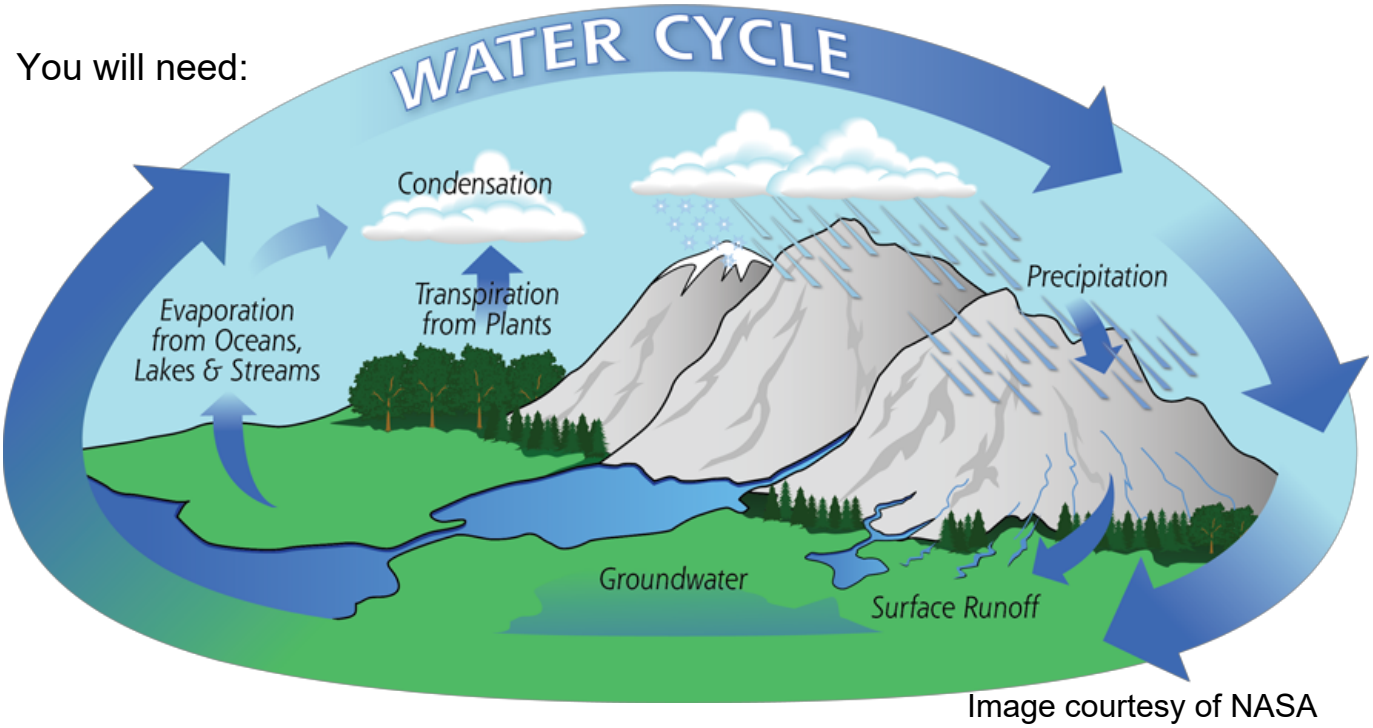


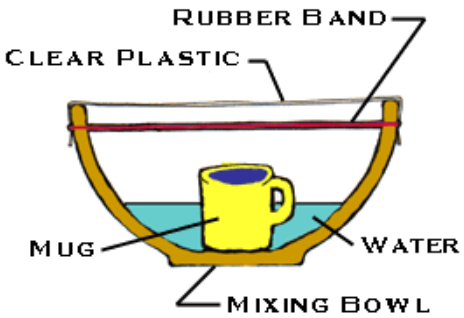
Image courtesy of NASA

The sun's heat causes water to evaporate from streams, lakes, rivers, and oceans. The water vapor rises. When it reaches cooler air, it condenses to form clouds. When the clouds are full of water, or saturated, they release some of the water as rain.

Create Your Own

You will need:

- a large metal or plastic bowl
- a pitcher or bucket
- a sheet of clear plastic wrap
- a dry ceramic mug (like a coffee mug)
- a long piece of string or large rubber band water



1. Put the bowl in a sunny place outside.
2. Using the pitcher or bucket, pour water into the bowl until it is about ¼ full.
3. Place the mug in the center of the bowl. Be careful not to splash any water into it.
4. Cover the top of the bowl tightly with the plastic wrap.
5. Tie the string around the bowl to hold the plastic wrap in place.
6. Watch the bowl to see what happens.

The "mist" that forms on the plastic wrap will change into larger drops of water that will begin to drip.(You can speed up the dripping by carefully moving the bowl – don't splash! – into the shade.) When this happens, continue watching for a few minutes, then carefully peel back the plastic. Is the coffee mug still empty? Water from the "ocean" of water in the bowl evaporated. It condensed to form misty "clouds" on the plastic wrap. When the clouds became saturated it "rained" into the mug!

This experiment adapted from resources provided by the Monroe County Water Authority - http://www.mcwa.com/MyWater/KidsWaterFun.aspx#cycle