



Science Fun!

Our Water Cycle

Get a glass of tap water in a clear glass. Take a good long look at the water. Now, can you guess how old it is? The water in your glass may have fallen from the sky as rain just last week, but the water itself has been around pretty much as long as the earth has! It was on this earth with the Brontosaurus! Our earth has a limited amount of water. That water keeps going around and around - that's what we all the "Water Cycle."

The Water Cycle is made up of four main parts. The parts are: Evaporation (and transpiration), Condensation, Precipitation and Collection.

Evaporation: Evaporation is when the sun heats up water in rivers, lakes or the oceans and turns it into vapor or steam. The water vapor or steam leaves the rivers, lakes or oceans and it goes into the air.

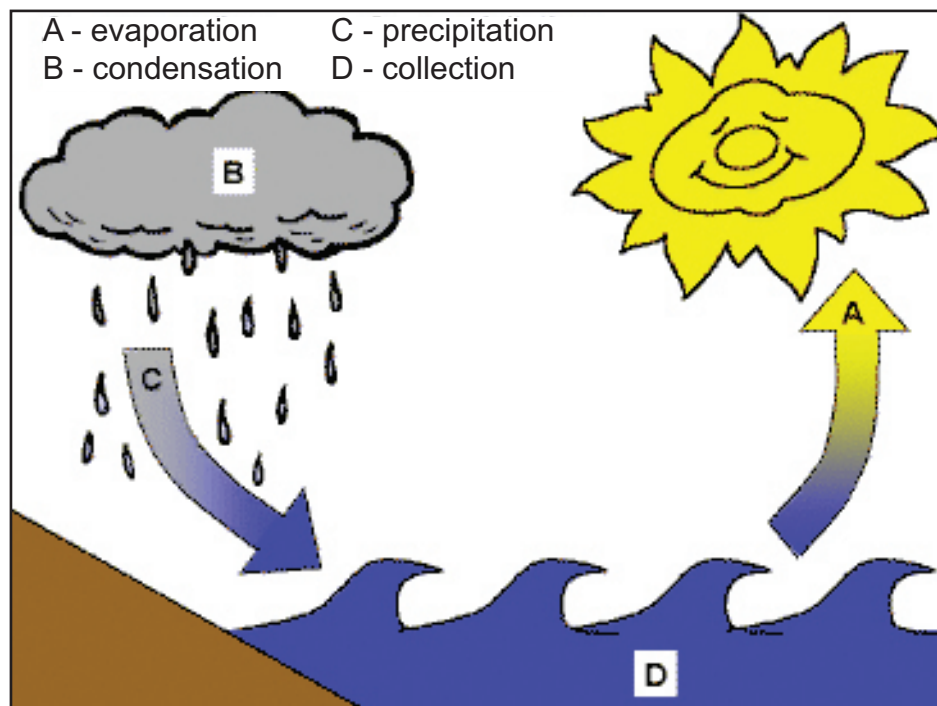
Do plants sweat? Well, sort of... where people sweat - plants transpire. Transpiration is the way by which plants lose water out of their leaves. Transpiration gives evaporation a bit of a hand in getting the water vapor back up into the air.

Condensation: Water vapor in the air gets cold and changes back into liquid, forming clouds. This is called condensation. You can see the same sort of thing at home... pour a glass of cold water on a hot day and watch what happens. Water forms on the outside of the glass. That water didn't somehow leak through the glass! It actually came from the air. Water vapor in the warm air turns back into liquid when it touches the cold glass.

Precipitation: Precipitation occurs when so much water has condensed that the air cannot hold it anymore. The clouds get heavy and water falls back to the earth in the form of rain, hail, sleet or snow.

Collection: When water falls back to earth as precipitation, it may fall back in the oceans, lakes or rivers or it may end up on land. When it ends up on land, it will either soak into the earth and become part of the "ground water" that plants and animals use to drink or it may run over the soil and collect in the oceans, lakes or rivers where the cycle starts all over again.

Here's An Experiment For You To Try!
Please read all instructions completely before starting and observe all safety precautions.



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 1/4 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.

A miniature water cycle. 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 removing 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!

