



WINDOW WATER CYCLE

Learn about the water cycle.

Materials

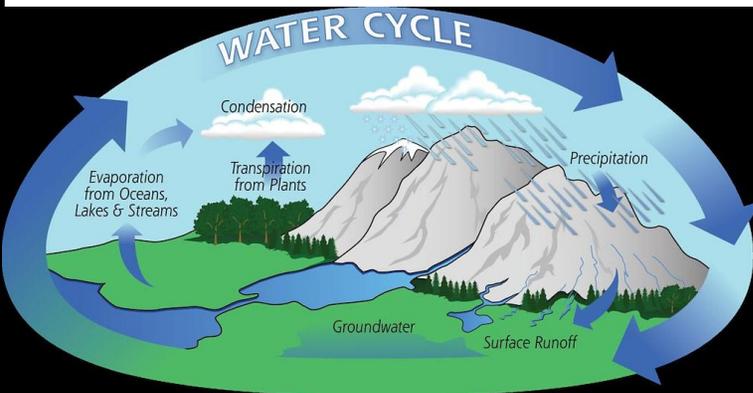
- Plastic baggie
- Food coloring
- Sharpie
- Tape
- A sunny window

Procedure

- On a plastic baggie, draw a sun and clouds at the top and waves of water an inch from the bottom. Let the ink on the bag dry before continuing to the next step.
- Squeeze 1-2 drops of food coloring into the bag. Then, fill the bag with water up to the waves you drew. Seal the bag with plenty of air inside and give it a small shake to mix the water and food coloring.
- Tape your baggie to a sunny window and observe it from time to time throughout the day. Do you see any changes?

Results

Condensation is forming at the top of the bag, then drips down the sides to return to the bottom. You've made a water cycle!



Why?

Just like in nature, the sun is heating up your water causing it to evaporate. This evaporated water or *water vapor* rises to the top of the bag where it gathers until the air at the top of the bag is saturated. When the air is saturated it physically cannot hold any more water vapor, so that vapor condenses into droplets which slide down the sides of the bag back to the water at the bottom. Your bag is mirroring the Earth's water cycle on a miniature scale. In nature, the sun will heat up bodies of water like puddles, ponds, lakes, or even oceans causing some of the water to evaporate. Water vapor rises and forms clouds. When the clouds cannot hold any more water vapor, they release the water as rain, which eventually returns to a body of water where the whole process starts again!

To learn more about weather, check out the Pink Palace Museum's *Weather Whys* Program.