# Mini Water Cycle

Although you may not notice, water is moving around us all day long. A process called the water cycle uses heating and cooling to move water from the sky to the ground and back to the sky again. In this experiment, you will use simple materials to create a visible water cycle in your own home!

## Guess

You will be creating a mini water cycle system using markers, a plastic bag and water. Write your hypothesis, or guess, about what will happen when you leave a plastic bag full of water in the sun.

## Materials

- Resealable plastic bag, like a sandwich bag
- Permanent marker of any color
- Water
- Tape
- A sunny spot for your bag, preferably a windowsill. The more sun the better!
- Optional: food coloring for your water

## Experiment

1. Gather your materials.
2. Use your marker on your plastic bag to draw a sun in one of the top corners and a cloud in the middle.
3. Next, fill one-third of your bag with water and add a drop or two of food dye, if you wish.

Your bag should look something like this!

4. Carefully seal your bag. Use your tape to secure the bag to your window, making sure it is secure and will be exposed to the sun.
5. Make a note of what time you started your mini water cycle process. As the sun heats the water, watch and record your observations on page 2!

Tip: If you think your bag may not get enough sun, ask your parent or guardian to help you microwave your water for 10 seconds BEFORE you put it in your bag.

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## Observations

Draw your bag or describe what you see! Record your start time to keep track of your hours.

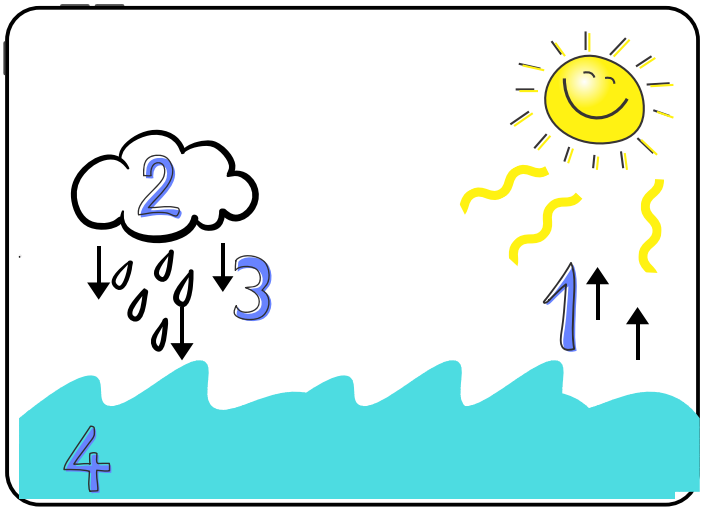
1. Two hours after beginning your water cycle

2. Four hours after beginning your water cycle

Based on your observations, what happened to the water inside of your bag?

## Water Cycle Matching

Here is what is happening inside of your bag.
Match each step with the correct number on the diagram!




☐ Evaporation:
The sun heats the water, causing it to rise up inside of your bag, like steam coming off a boiling pot of water.

☐ Accumulation:
The fallen droplets collect in the water below, the same as when rain forms a puddle from a lot of drops.

☐ Precipitation:
As water droplets gather on the sides of the bag, they become heavy and fall down, just like rain or snow.

☐ Condensation:
When the warm water rises up and touches the colder bag, the water cools and forms drops, like when drops collect on a lid while cooking pasta.