

Water Cycle in a Bag

Materials:

- Ziploc Sandwich Bag
- Sharpie Marker
- Blue Food Coloring (optional)
- Tape



Steps

1. Using the Sharpie, draw the sun in one of the top corners, a few clouds in the sky, and some water waves at the bottom.
2. Fill your bag with an inch of water.
3. Add several drops of blue food coloring. Be careful not to get the blue food coloring on the sides, or to shake the water up. *Blue food coloring is optional!*
4. Carefully (so you don't shake the water up), seal the bag and tape the top to a sunny window.
5. Over the course of the day (or a couple of days), watch as the water evaporates, condensates and droplets cling to the top/sides of the bag. Notice - are the evaporated drops still blue? Why aren't they blue anymore?
6. Tap some of the drops so that they clump together, then watch as they fall from your cloud as rain. Congratulations! You've just made a water cycle in a bag.

Teacher/Parent/Facilitator Tips and Talking Points

- Ask your student to draw and label the parts of the water cycle on the bag (evaporation, collection, condensation, and precipitation). After they have drawn the water cycle, let them personalize with their name, or their own drawings (ie. adding a bird, a tree, flowers, etc.).
- If it's a cool, cloudy day the experiment will take longer. Tape it to a window, where your student(s) can see it, and in a location that you are okay leaving it for a couple of days. Make observations together about where they notice water or water drops (at the beginning it should only be on the bottom).
- Ask your child if they think the bag will look the same as time goes on. Elicit their ideas about what might happen.
- After the bag has condensation at the top, ask them how the water got there. It evaporated! When water evaporates it leaves behind any pollution, dirt, or salt. In this experiment, it left behind the blue food coloring.
- Using your finger to clump together the drops of condensation, watch as they get heavy and fall down as precipitation. Let your child make it rain by tapping the drops gently.

