

Water Cycle in a Bag

SOL Standards - Elementary

- 3.7 The student will investigate and understand that there is a water cycle and water is important to life on Earth. Key ideas include:
 - There are many reservoirs of water on Earth
 - The energy from the sun drives the water cycle; and
 - The water cycle involves specific processes

Description

Students will draw out the water cycle to understand how water travels in a cycle. Students will identify each stage of the water cycle and identify what happens when the water cycle project is placed in the sun.

Essential Questions

- What is the water cycle?
- What are the different stages of the water cycle?
- At which stage of the water cycle is water a solid? A liquid? A gas?
- What happens to the water cycle project when placed in the sun?
- What happens to the water cycle project when placed in the shade?
- How is the sun an important part of the water cycle?

Materials

- Plastic zipper bags (sandwich, quart, or gallon sized)
- Permanent Markers (can have a variety of colors for added fun)
- 1/3 cup of water
- Blue food coloring (optional)
- A place to hang the finished project (window with tape or clothesline outside)

Vocabulary

- Water Cycle
- Precipitation
- Evaporation
- Condensation
- Runoff
- Collection

Procedure/Instructional Strategies

1. Review the water cycle.
 - a. Place an emphasis on the different parts of the water cycle including collection, runoff, and groundwater storage.
2. Provide each student with a plastic zipper bag and marker(s).

3. Discussing one stage at a time, guide the the students to draw the water cycle on the plastic zipper bag.
4. Once the drawing is complete, pour 1/3 cup of water into each bag.
 - a. You may add one or two drops of blue food coloring to the water
5. Hang or tape each bag outside or in a sunny window.
6. Have you students observe what happens to the bag over time.

Discussion Questions:

- Does the bag look the same?
- What caused the water droplets to form inside the bag?
- What would happen if we placed the bag in a shady area?
- How does the outside temperature impact the experiment?
- How does this project represent the water cycle?

Examples:



This lesson plan has been adopted from <https://ziploc.com/en/Inspiration/Stem-Activities/Ages-9-12/Water-Cycle-Bags>