

“Wonders of Water” -- Evaporation

Kindergarten and Grade 1

Materials

For the class:

- hotpot (plug-in water heater)
- black paper to help show the steam from the hotpot
- timer
- 2 water containers for outside part of the lesson
- towels to wipe off slates

- empty gallon water container
(for water-saver talk)

- tray for small water containers

For each student:

- slate chalk board
- 1" x 1" sponge

For every two students:

- small bowl of water

Students sitting on the floor

1. Review the three forms water takes: Solid, liquid, gas.
2. Review the four parts of the Water Cycle and show a globe of the earth (blue or water planet).

Evaporation demonstration

Heat water in a plug-in “hotpot.” Ask for a volunteer to help. Have the student feel the bottom of an empty mug. It is dry and cool. Take the lid off the hotpot and have the students notice the steam. Discuss what is happening to the liquid water. Hold the mug over the steam. Is the liquid water jumping up to touch the mug? (No.) Did I dip the mug in the liquid water? (No.) Hold the mug up for the students to see the water on the bottom. Have the volunteer feel the bottom of the mug and confirm that it is wet. Discuss where the water came from.

Hands-on evaporation experiment

1. I demonstrate how to dip the sponge in the water and draw a circle and fill it in on a small chalk board.
2. The students draw a circle with water on their boards. I start the timer for 1:00 while the students “observe” what is happening to the liquid water on their boards. We check the boards at 1, 2, and then 3 minutes. Discuss where the water went. Wipe the boards with towels to dry any remaining water from the boards.
3. The students take their boards and sponges outside in the sun. They dip and hold the sponges in a water container that I've carried outside. When I say “go,” they all draw a circle and fill it in on their boards. I start the timer for 1 minute. We check the boards again at 2 minutes. Usually the water on most boards is dried or almost dried up in 2 or 3 minutes. We go back inside and discuss what happened inside and outside (sun, heat, a dry day, make liquid water evaporate more quickly).
4. We do one more experiment. The students dip their finger in the bowl of water and hold it up. What can we do to make the water evaporate more quickly without wiping our finger on something? (Blow on it, move the finger back and forth in the air -- creating wind).
5. Add 'wind' to the list of what makes liquid water evaporate more quickly.
6. **First Graders only:** Students will “draw” one of the parts of the water cycle (evaporation, condensation, precipitation, accumulation) and have the other students at their table guess which part it is.
7. Wrap-up lesson. What makes water evaporate more quickly? (heat, sunshine, wind)

Closing

Review some methods students can conserve water (be a “water saver”) -- water off when brushing teeth, 5 minutes or less showers, low water in the bathtub, and watch for dripping faucets.