



# Recycled Materials Evaporation Test



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In this experiment, you'll get to repurpose some containers and lids lying around the house or in your recycling bin while learning about the energy from the sun, states of matter, and water! Test the factors that influence evaporation and see what will make water evaporate the fastest.

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## Materials

- Lids from various containers (deep lids, bottle caps, low lids, etc.)
- Various recycled materials (aluminum foil, paper, cardboard, etc.)
- Tape

## Instructions

1. Find a spot outside or in direct sunlight to conduct your experiment.
2. Collect as many lids and shallow, small containers as you can find. Some good examples are playdough lids, coffee can lids, small dipping sauce containers, peanut butter jar lids, and bottle caps. Use your imagination!
3. Lay each container out in the sun and add the same amount of water to each one. The amount depends on the size of your containers, but a tablespoon may be a good place to start. Whatever your smallest container can hold is a good rule of thumb, just make sure you are measuring and adding the same exact amount to each container!
4. Make your hypothesis! Which container of water do you think will evaporate the fastest? Why do you think that? It is helpful to write your hypothesis down or share it with a friend so that you can check it after your experiment.



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5. If you have several lids of the same size, mix it up by using foil to cover one, poking holes in a cover for another, and modifying them until they are different!

6. Check your containers every hour or so, until you have some results.

7. How did the results compare to your hypothesis?



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## How it Works

There are several factors that can influence how fast water can evaporate—surface area, temperature, and air movement to name a few. In this experiment, we tested how surface area can influence the evaporation rate! Containers that were more shallow but wider likely evaporated quicker than a deep, small container. This is because there is more surface area for the water to absorb the energy from the sun, in the form of heat, and warmed up the water faster than a deeper container.

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