

Evaporation Station



What Is this Activity?

What happens to the water after it rains? It doesn't just disappear! Explore with your child to see how sun, shade, and wind affect how water evaporates. This activity works best on a warm, sunny day. If it is damp or raining, check out "Play With Puddles" at the end of this activity.



Exploring your world,
one mission at a time

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Topic

evaporation,
water in the
environment

Activity Type

outdoor

Activity Time

60 minutes

ACTIVITY

Part A

What You'll Need

- A bucket or other container to hold water
- Paintbrushes, sponges, or strips of cloth from an old shirt
- Sidewalk chalk
- Construction paper (2 pieces, each cut to the size of a zippered sandwich bag)
- A zippered sandwich bag
- Field notebook and pencil
- Camera (optional)

Paint with Water

- 1 Fill a container with water. Gather the materials, head outside and find a paved area, such as a sidewalk or driveway.
- 2 In a **sunny** spot, dip a brush into the water. Write your names, or "paint" a picture on the pavement. Outline the paintings with sidewalk chalk.
- 3 Sketch the paintings in your notebook, or take pictures of them.
- 4 Repeat the steps above in the **shade**.
- 5 Have your child make a prediction!

Ask:

- What will your painting look like in 10 minutes? Half an hour? Why?
- 6 Spend about 10 minutes to half an hour walking around the block or visiting a park.

When water evaporates it changes into a gas called water vapor, which we can't see. When it cools, water vapor changes back into liquid water.



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Part B

Disappearing Handprints

Look at the water paintings when you return.

Ask:

- Have the paintings changed?
- Where do you think the water went?

Then, design an experiment to find out!

- 1 Have your child dip a hand in the water, shake off the excess, and make a handprint on construction paper. Place the construction paper in the sandwich bag and seal it up, leaving enough air inside so the top of the bag does not touch the paper.
- 2 Make another water handprint. This time, leave the construction paper out (do not put it in a bag).
- 3 Place both items in the sun.



The color in construction paper can bleed when wet. Place the items on a cookie sheet or sheet of newspaper if you do not want to stain the surface you place them on.

Ask:

- What do they look like now? Make sketches.
- What will they look like in 10 minutes? Half an hour?

Part C

Where Did the Water Go?

Check on your water paintings and handprints again.

Ask:

- Have they changed? How? Make a sketch and compare it with your first sketch.
- What do your handprints look like now? What will they look like tomorrow?
- If they are gone, is there any evidence that there was once water on the paper? *The droplets on the inside of the bag came from the water that evaporated.*
- Do you think there is water in the air around us? *There always is—it is called water vapor. Sometimes you can feel it, like on a humid day or in the bathroom after a hot shower.*

EXPLORE SOME MORE

Play with Puddles

If it has recently rained, or even if it is still raining, go for a walk and note where puddles form. When the rain stops, return to the puddles and outline them with chalk. What do you predict will happen to them? What will they look like after an hour? Are they still there after lunch or dinner?

Cool Down

Give your child a paintbrush and a cup of water. Paint a picture on your child's hand or forearm and then blow on it.

Ask:

- What happens to the water?
- How does your hand feel?

As the water on your skin evaporates, it takes some of your body's heat with it. This is why your body feels cooler when you come out of a bath or shower.



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