



KIDS for the BAY

A Project of Earth Island Institute

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Experiments and More

Crumpled Watersheds

Activity Summary

Build a miniature watershed with a piece of paper and see how water flows through the environment!

Watershed: an area of land that water flows over or through on its way to a river, bay or ocean. For example, the entire area of land that drains water into Strawberry Creek is called the Strawberry Creek watershed.

Directions

1. Crumple your piece of paper into a ball.
2. Gently begin to unfold your paper, but do not completely flatten it. Imagine you are forming a natural hill or mountain with ridges and low points.
3. With your blue washable marker, trace any low spots you think would make a stream, river or lake during a rainstorm.
4. With your brown washable marker, trace any ridges or high spots that would shed off water during a rainstorm.
5. Place your crumpled watershed on a tray or large plate.
6. Spray your watershed with water to make rain. If you don't have a spray bottle, dip your fingers in a cup of water and gently flick water onto the watershed until the colors start to move.
7. Observe what happens and try to name the features that are formed, like lakes and waterfalls.
8. Questions to consider:
 - i. Where do the blue marker and water flow? Were your predictions correct?
 - ii. What happens on the brown ridges? Does water flow off those areas quickly?
 - iii. Where are there hills near you? Where does the rainfall on nearby hills flow to?
 - iv. If you stood at the top of a mountain and poured a cup of water off either side, where would both cups flow? Would they flow together or stay apart?
 - v. What watershed do you live in? Use these maps for [Alameda](#) and [Contra Costa](#) counties to help.



Location

On a table inside or in your yard or sidewalk. Check in with an adult about where to do the activity and ask if they'd like to join.

Share your experience with us!

Email kidsforthebay@gmail.com to share photos, videos, comments or questions.

Tag us on Instagram and Facebook @kidsforthebay. Use **#EveryoneisanEnvironmentalist** in your posts.

Supplies

- 1 piece of parchment or wax paper. Regular paper works if you don't have wax paper.
- Blue and brown washable markers. Permanent markers won't move with the water.
- A tray or large plate to catch water beneath your crumpled watershed
- A water spray bottle. Dip your fingers in a cup of water and sprinkle water if you don't have one.
- Magnets to hold your paper in place on the tray (optional)

Additional resources and related activities

Find the video related to this activity on our [website](#):

- <https://kidsforthebay.org/at-home-activities/every-day-with-nature/>

Watch this [“What is a Watershed?”](#) video to see a simple illustration of a watershed:

- <https://www.youtube.com/watch?v=QOrVotzBNto>

Explore local San Francisco Bay Area watersheds at the links below:

- Alameda County Explore Watersheds page:
<https://acfloodcontrol.org/resources/explore-watersheds/>
- Contra Costa County Watershed Map:
<https://www.ccleanwater.org/watersheds/watersheds-in-contra-costa-county>

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