



KIDS for the BAY

A Project of Earth Island Institute

1771 Alcatraz Avenue, Berkeley, CA 94703

Tel: (510) 985-1602 | Fax: (510)-547-4259

www.kidsforthebay.org

Mandi Billinge, Executive Director/Founder

Experiments and More

Coastal Erosion Experiment

Explore what causes erosion of our coastlines with this fun and simple hands on experiment!

Activity Summary

Use materials found at home to create a small erosion model, an experiment that really makes waves!

Directions

1. Place sand or loose soil on one side of a 9x13 inch pan. Make it a steep slope.
2. Pour water into the other side of the pan, until it's halfway up your sand/soil slope.
3. Place your bottle on the end with the water. Push the bottle down to create small waves. Do this, consistently and evenly, for one whole minute. Use your scientific power of observation to watch what happens to the soil/sand and record what happens.
4. Push again with your water bottle for another minute. You may make your waves bigger, or keep them the same size. Record additional observations.
5. Consider these questions during and after the experiment by watching the videos listed below:
 - a. What is erosion?
 - b. Is erosion good or bad for our shorelines?
 - c. How do waves cause coastal erosion? How are the size of waves and the speed of erosion related?
 - d. How do you think ocean wildlife are impacted by erosion?
 - e. Besides waves, what are some other natural processes that cause erosion?
 - f. What are some ways to prevent coastal erosion?



Location

Your own house or a nearby park with a sandbox. If you have some space outdoors, consider doing the experiment there.

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

- 9 x 13 inch pan
- Sand or soil
- Water
- Water bottle or other plastic bottle
- Paper/journal and pencil

Additional resources and related activities

1. [What is Coastal Erosion video](#)
 - a. <https://www.youtube.com/watch?v=zUh3WeilFN4>
2. [National Park Service Coastal Processes Series: Erosion](#)
 - a. <https://www.nps.gov/articles/coastal-processes-erosion.htm>

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.