

Human Impact Lab: Watersheds

Loggerhead Marineline Center

Loggerhead Marineline Center is an ocean conservation organization and sea turtle hospital located adjacent to one of the most important sea turtle nesting beaches in the world. The Center features an on-site campus hospital, research laboratory, educational exhibits and aquariums, and also operates the Juno Beach Pier, which hosts world-class angling and sightseeing. The Center's conservation team works with 76 local and international organizations across six continents to form partnerships and share conservation initiatives and best practices that are core to its mission of ocean conservation. The Center is expanding and has launched its Waves of Progress capital expansion campaign, designed to accelerate and amplify LMC's conservation and education impact.

Our mission is to promote conservation of ocean ecosystems with a special focus on threatened and endangered sea turtles. Our vision is to be recognized locally and internationally as the leading authority in sea turtle education, research and rehabilitation.



Lesson Objectives

- I can describe what a watershed is and its importance
- I can identify the watershed that I live in
- I can observe how human interactions can impact watersheds.

Vocabulary

- **Watershed:** a land area that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean.
- **Topography:** the arrangement of the natural and artificial physical features of an area.
- **Pollution:** the presence in or introduction into the environment of a substance or thing that has harmful or poisonous effects.
- **Runoff:** the draining away of water (or substances carried in it) from the surface of an area of land, a building or structure, etc.

Resources

https://pbskids.org/plumlanding/educators/activities/build_a_watershed_ed.html



Visit Marineline.org to learn more about Loggerhead Marineline Center!

Make your Own Watershed

Materials:

- 1 large plastic tray or shallow tub
 - 4 tall containers
- 1 large sheet of clear or light-colored plastic (try to find something you can reuse, like a tarp, shower curtain or dry-cleaner bag)
 - 1 spray bottle
- 2 bottles of food coloring (in different colors)
 - Cooking oil
- Spices, sprinkles or other small particles to represent “litter”
 - Towels

Directions:

1. Stack the containers on a large tray into a pile that is 1 to 2 feet high.
2. Make an irregular mound with peaks, ridges, and valleys by draping a tarp or shower curtain over the containers.
3. Point out where the hills, mountains, and valleys are and predict what might happen if you spray water on the tops of the hills and mountains.
4. Spritz the model with the spray bottle to create rain and watch where the water flows. Are there any lakes and rivers in your model?
5. Use the food coloring, cooking oil, spices, and/or sprinkles to experiment with what happens to pollution in a watershed. Ask the following questions while experimenting with pollution.
 - a. Where does the “pollution” go when it rains?
 - b. Are there any places in the landscape it will not go?
 - c. Where do these pollutants come from?
6. Ask yourself where your water comes that comes out of your faucet? Do research to find your local watershed and make sure you do your part to keep it clean by reducing, reusing, recycling, and respecting the Earth.

Activity by PBS Kids