

# How People Affect Ocean Animals and Plants

How do people who live on coasts affect ocean animals and plants?

## Overview

Students brainstorm how people living along coasts harm ocean animals and plants. Then they analyze specific examples.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/how-people-affect-ocean-animals-and-plants/>

## Directions

### **1. Brainstorm the negative impact of humans on ocean life.**

*Ask: How do people living along coasts harm ocean animals and plants?* Discuss students' ideas and list them on the board. Tell students you will look at some specific examples together.

### **2. Discuss runoff from streets into storm drains and where it goes.**

Show students the photo of a clear storm drain. *Ask: Have you ever seen a storm drain like this in the curbs of streets near you?* Explain to students that storm drains can be found even in places that are far away from the ocean. Tell them that what goes in storm drains eventually ends up in a lake or ocean. Now show students the photos of polluted storm drains. Explain that this is what happens when people throw trash and other materials on the street. When it rains,

everything gets washed off the street and into the storm drains. As water flows through the drains, it washes this pollution all the way to the beach and the ocean. Ask: *How do you think the ocean animals like all this trash in their habitat?*

### **3. Discuss how light pollution affects sea turtles.**

Show students the photos of sea turtles. Explain to students that sea turtles swim around the world's warm oceans and nest on the beach. They face many dangers. Dangers include light from cities and towns along the coast. When baby sea turtles hatch, they move toward the brightest light. Scientists believe that turtles use the light from the moon to help them find the ocean. If they see a streetlight or a light from a car, they often head toward those lights. Ask: *What do you think happens to them?* Prompt students to answer that they never reach the sea and they can get run over by vehicles, eaten by other animals, or die of thirst.

### **4. Discuss the dangers of boat propellers to manatees.**

Show students photos of scarred manatees. Ask: *What do you think happened to hurt the manatees?* Explain to students that manatees are large, gentle animals that swim very slowly. Motorboats are a big problem for them—manatees are often injured or killed by boats' propellers because they can't swim out of the way fast enough.

### **5. Identify how people can help.**

Ask students to describe things that people who live near or visit the ocean can do to keep the beach and water clean and to protect the animals that live there. If students live in a coastal community, discuss the specific issues that affect the ocean and marine life in their area.

## Extending the Learning

Research whether or not you have storm drains in your community and, if so, where the runoff goes. If there are no storm drains in your town, try to find out where water and waste go when it rains. Also investigate whether there are any programs to educate the public about how to keep the local waterways clean. Once you've gathered this information, have the whole class contribute to a

poster to inform other students or adults about how to protect local waters.

# Objectives

## Subjects & Disciplines

### **Geography**

- Human Geography

## Learning Objectives

Students will:

- brainstorm how people living along coasts harm ocean animals and plants
- analyze specific examples
- identify ways that people can protect marine life from these dangers

## Teaching Approach

- Learning-for-use

## Teaching Methods

- Brainstorming
- Discussions
- Visual instruction

## Skills Summary

This activity targets the following skills:

- Critical Thinking Skills

- Applying
- Understanding
- Geographic Skills
  - Acquiring Geographic Information
  - Analyzing Geographic Information

## National Standards, Principles, and Practices

### National Geography Standards

- **Standard 12:**

The processes, patterns, and functions of human settlement

- **Standard 14:**

How human actions modify the physical environment

## Preparation

### What You'll Need

### Required Technology

- Internet Access: Optional
- Tech Setup: 1 computer per classroom, Projector

### Physical Space

- Classroom

### Grouping

- Large-group instruction

# Resources Provided: Images

- Storm Drains
- Sea Turtles
- Manatees

# Background & Vocabulary

## Background Information

Large coastal populations have an impact on ocean animals such as sea turtles and manatees. Many people and groups are working to protect these ocean animals.

## Prior Knowledge

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## Recommended Prior Activities

- [Healthy Beaches](#)
- [Why People Live Near Coasts](#)

## Vocabulary

<b>Term</b>	<b>Part of Speech</b>	<b>Definition</b>
<b>coast</b>	<i>noun</i>	edge of land along the sea or other large body of water.
<b>habitat</b>	<i>noun</i>	environment where an organism lives throughout the year or for shorter periods of time.

## For Further Exploration

## Websites

- [EPA: Oceans, Coasts, & Estuaries](#)
- [National Geographic Kids: Animals—Loggerhead Sea Turtles](#)
- [National Geographic Kids: Animals—West Indian Manatees](#)

# Funder

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