

TURNING THE TIDE ON TRASH

A LEARNING GUIDE ON MARINE DEBRIS



LESSON ONE

Marine Animals and Harmful Debris

Grade Level:
Grades 2 – 4

Subjects:
Language Arts, Science

Overview:
Students listen to descriptions of marine animals and then identify marine debris items that could harm them.

Objective:
To learn about the characteristics of marine animals that can make them susceptible to the hazards of marine debris.

Vocabulary:
endangered species, entanglement, ingestion, resin pellets, threatened species

Materials:

- One or more copies of the “Animal Tales” handout
- Foamed plastic cup/plate/bowl pieces
- A piece of fishing net (or a large mesh onion or vegetable bag)
- Fishing line or rope
- Six-pack ring
- Plastic shopping bag or piece of plastic sheeting
- Lobster or crab pot (or a wooden box or crate)
- Balloon and its ribbon
- Other types of debris (such as a plastic cup, a pull tab from a can, a metal bottle cap and a glass bottle)



Entangled sea lion

Learning Skills:
Analyzing, Public Speaking, Reading, Visualizing

Duration:
40 minutes

Activity

1. Place the items of debris on the floor in the middle of the classroom and have students form a circle around the items. Read the description of the seal on the “Animal Tales” handout, or ask one of your students to read it to the class. (NOTE: You might want to make copies of the handout and distribute it to the students so they can follow along.)

LESSON ONE



Sleeping monk seal

NOAA NMFS

2. Choose a volunteer to be a seal and ask him or her to go into the center of the circle and pick up an item of debris that might harm a seal. Ask the “seal” to tell how and why it might become injured by this piece of debris. Encourage students to think about how animals could become entangled in the debris items, plus how the animals might eat the items, mistaking the debris for food.

3. Repeat this procedure for the remainder of animals on the handout. After you have finished, ask the students if they can associate any other pieces of debris with one of the animals in a way that the class has not yet discussed.

4. Explain that many species of mammals, sea turtles, birds and fish that encounter marine debris are endangered or threatened. Ask students how marine debris could pose special problems for these species. End your discussion by helping students to understand that **any** animal that lives in the ocean or along the coast can be affected by marine debris.

EXTENSIONS

Have students locate photographs, artwork or articles describing the impacts of marine debris on wildlife. Students can work individually or in pairs to research a particular type of marine wildlife and develop a “photo essay” or brief presentation about how marine debris harms a particular species. Students could also focus on a particular type of marine debris and its impacts on wildlife in general.

Take students on a field trip to an aquarium or nature center/reserve, where they can learn about endangered and threatened species that might be harmed by marine debris. Contact the aquarium or nature center/reserve in advance and ask for a guided tour that emphasizes the problems that marine debris poses for endangered and threatened species.

Animal Tales



SEABIRD

I look for food in the piles of seaweed and shells that wash up on the beach by the tides. If I can, I will eat food that has already been caught by someone or something else. I also like to eat fish eggs, which are round and clear.



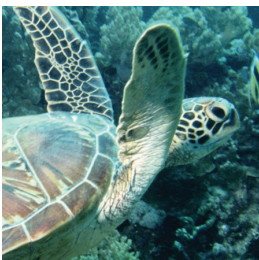
SEA LION

I like to play in the water and I am curious about new things. I like to investigate objects that float on the surface of the ocean. My nose is perfect for poking into things – but sometimes I can get caught.



FISH

I swim into holes and near objects that offer shelter from bigger fish. If a lot of smaller fish are gathered in one area, I may swim closer to see if I can eat them for lunch.



SEA TURTLE

I am a turtle that lives in the ocean. One of my favorite foods is jellyfish. Jellyfish float near the surface of the water and you can see right through them!



LOBSTER

I crawl along the bottom of the ocean searching for food. Sometimes I find a meal inside a wooden crate resting on the ocean floor—but once I get into the crate, I can't get out again.