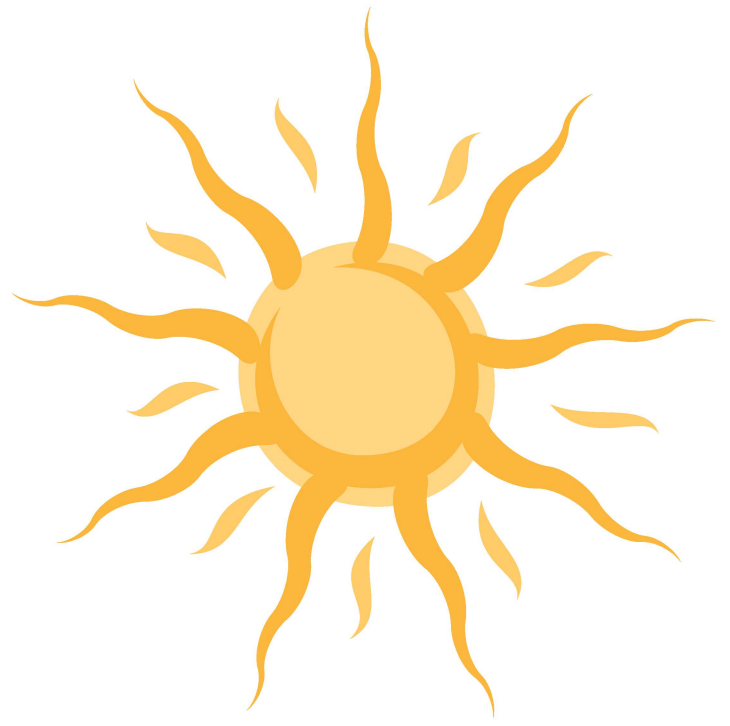


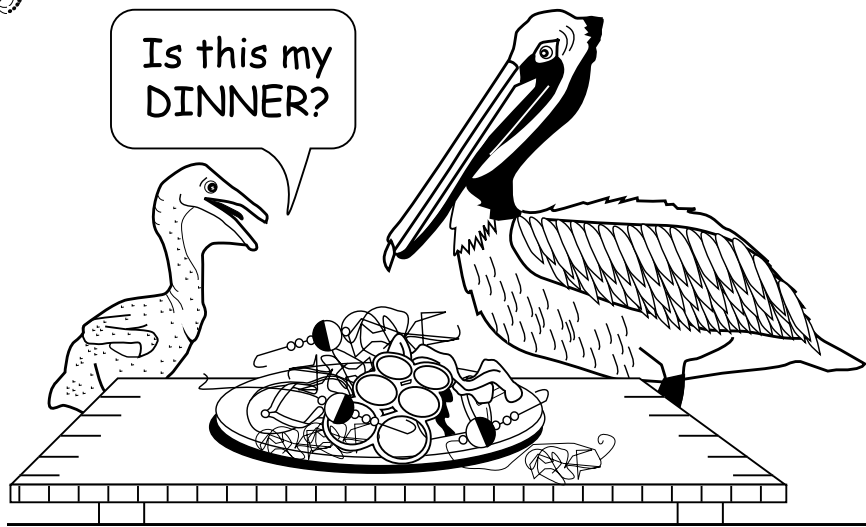
The Educator's Guide to Marine Debris

Southeast and Gulf of Mexico





Activity | EATING PLASTIC IS A DEADLY MEAL



Plastic debris is found along our beaches as fast food containers, foam coolers, plastic foam surfboards, and beverage bottles. These eventually break down into fragments. Oceanic currents carry these tiny plastic particles all over the globe, where they collect inside circular currents (**eddies**) or drift onto beaches. Seabirds feed in a frenzy over schools of bait fish. Often the plastic is swallowed quickly along with the food. Seabirds also bring these plastics back to the nest to feed their chicks. These plastics can build up in their digestive systems, causing harm to adult and young seabirds.



OBJECTIVE

The students will:

- ▶ Investigate why marine birds eat plastic debris
- ▶ Discuss how humans can reduce the amount of plastics going into the ocean

MATERIALS FOR EACH GROUP

OF STUDENTS:

- ▶ One paper plate
- ▶ Fragments of plastic (cups, bags, and beads)
- ▶ Three spoons
- ▶ Three cups
- ▶ One and one-half cups dry rice
- ▶ Stopwatch

PROCEDURE/TEACHER PREPARATION:

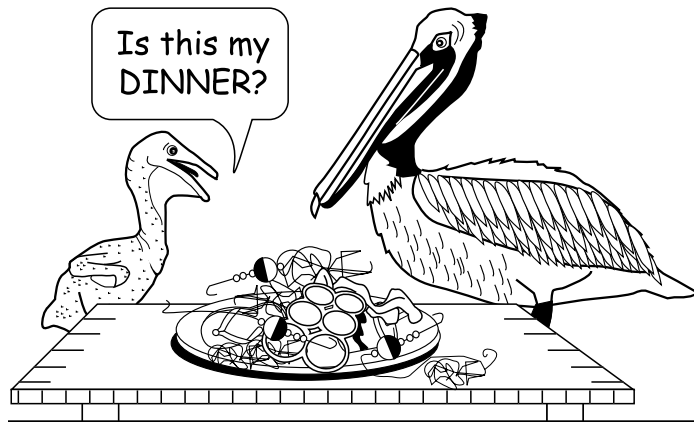
On each paper plate, mix rice with a 1/2 cup of the plastic pieces.

1. Students divide into groups of five.
2. Each group of students gets a plate with the rice and plastic mixture, three spoons and three cups.
3. Spoons represent the bird's beak and the cups represent the bird's stomach. The rice represents food such as bait fish.
4. Three students in each group pretend to be birds and their spoon beaks to feed from the container. They place the food into their "stomach" cups.
5. One student in each group is the timer. The timer indicates to his or her group when to start and stop feeding. Each group feeds for 30 seconds.
6. After "feeding," each group completes the chart in the observation section.

Source: Modified from *Ripples*, published by North Carolina Big Sweep at www.ncbigsweep.org/Ripples.html.



Eating Plastic Is a Deadly Meal



Student Reporting Table

Student "Bird"	# Of Rice Grains	# Of Plastic Debris Pieces	Total # Of Pieces
Bird 1			
Bird 2			
Bird 3			
Total			
Average			

Answer the following questions.

1. Math: What is the ratio of rice to plastic?

2. How could ingesting plastics affect a bird's ability to survive?

3. Discuss how humans can reduce the use of plastics in the ocean.

4. Conclusions: In a short paragraph and in your own words, explain the effects of plastic debris on marine birds.
