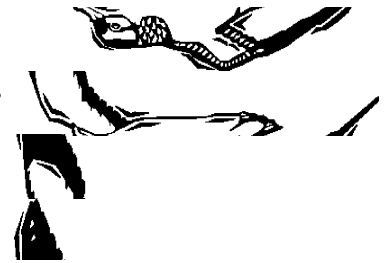


# Aching Gull

## Summary

Students will investigate the negative effect litter has on a gull through a simulated 'Hunger Pains' team relay activity, and develop expanded relations and discussion.



**Target Level:**  
Grade 5

**SOLs:**  
*Science 5.6*

**Materials Needed:**  
Large bag of cotton balls  
4 12-16 oz. plastic drink bottles of same size (e.g., soda, juice, or water)  
4 spoons  
Scissors and strong tape (e.g., duct tape)  
Bucket or dishpan  
Plastic packing pieces  
One six-pack plastic ring

**Time Needed:**  
One class period

## Objectives

Students will be able to identify and describe impacts litter may have on aquatic wildlife, and hypothesize methods of minimizing or eliminating these types of challenges.

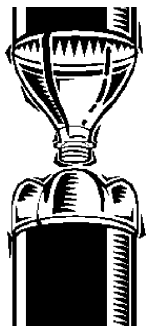
## Background

Animals, like people, also need a healthy environment in which to live. This includes a habitat (food, water, shelter, and space) that is as pollution-free as possible. Litter contributes to the pollution that affects many animals' habitat components. .

Many types of gulls depend on small fish as their main food source. Other kinds of animals feed on smaller animals or vegetation that are found near bodies of water. The consequences of litter being present are often detrimental, and are usually preventable. This activity identifies particular challenges that litter presents to animals that try to feed on or become entangled in foreign objects in their habitat

## Preparation

1. Label bottles (1 - 4).
2. Set up bottles to represent gulls as listed:
  - A. *Gull that is healthy*  
(cut off top neck of bottle to make a large unobstructed opening for food)
  - B. *Gull with a broken beak*  
(cut the same opening; put a piece of tape across the middle part of the opening; make jagged cuts part way in the tape so food can carefully make it through)
  - C. *Gull with a constricted neck and beak*  
(do not cut bottle; wrap a 6-pack plastic holder around upper outside of bottle)
  - D. *Gull that has eaten plastic pieces*  
(cut off the neck of the bottle as above; fill the bottle three-quarters full with packing pieces)
3. Place "sea gulls" in a row about a 15-foot distance from a designated starting line.
4. Put plenty of "minnows" (cotton balls) in the bucket or dishpan and place it to one side of the walking path, halfway between the gulls and the starting line.



## Procedure

1. Explain to the students that will have the opportunity to play a game called "Hunger Pains" and that the bottles they see represent gulls. Ask students what gulls might eat. Discuss the minnow/cottonball food source and that these particular gulls face may have an impaired ability to eat.
2. Divide the students into four teams. Have each group form a line, with the first person of each team standing on the starting line. Designate a "sea gull" by its number for each team.
3. Explain to the students that they will feed as many "minnows" to their team's seagull as

possible in a given amount of time. The first student in each line should pick up one piece of food with their spoon and place it into their hungry seagull. For the food to count, it must be in the bottom of the bottle (representing the seagull's stomach). If the piece falls on the ground, the student can scoop it up. After the food is placed in the gull, the student should return to their team, give their next team member the spoon, and the new student can take their turn.

4. Have the teams stop their relay after 3 minutes. The current first person in each line should count the amount of food in their gull's stomach. Have the students report to the class how much food actually made it into their gull's stomach. Did anything prevent or slow down their gull's ability to eat? What, if anything, may have been wrong with their gull.

### WrapUp/Assessment

1. Give each team a piece of paper. Explain that each group should choose a different animal that might also be affected by litter on a beach or in the ocean waters. The groups should record their animal, identify the sources of litter that may affect their animal's environment, and predict possible problems the animals will encounter.

2. After about ten minutes, ask each group to share their information with the rest of the class. Engage group discussion of possible ways to prevent or reduce litter in these areas.

### Extension

Give the class the opportunity to help their local wildlife. Work with the class toward planning a litter clean-up at a local beach, river, or lake.



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### Student Worksheet for Assessment

Name of Animal	Specific piece of litter that could be found	Possible problems