

Lesson at a Glance

Students will better understand how debris affects wildlife.

Grade

K-6

Time

30 minutes to 1 hour depending on depth of discussion

Core Connections

2nd Grade Social Studies

- 4.2.c *Define and explain the difference between producing and consuming*

3rd Grade Social Studies

- 1.3.c *Describe ways to conserve and protect natural resources*
- 1.3.e *Make inferences about the positive and negative impacts of human-caused change to the physical environment*

4th Grade Social Studies

- 1.3.b *Explain viewpoints regarding environmental issues*

Materials

- Rubber bands (one per student)

Background Information

Trash is big problem for animals. If it is floating in the water (aquatic debris) it is a big problem for many animals including fish, birds and marine mammals. For example, a six-pack ring, fishing line or fishing net can get caught around a fish, bird or marine mammal's body, causing the animal to starve or get an infection if a wound develops. This is because as the animal grows, the trash doesn't. Since these animals do not have hands like people, once they are caught, it is very hard for them to free themselves.

The same trash on land can also entangle terrestrial animals. For example, fishing line left on the shore of a stream can entangle beavers, songbirds or other animals that come to the stream for food or water. An abandoned tin can might become a stuck on the muzzle of a bear looking for a snack.

Activity

1. Have each student hook one end of the rubber band around his or her pinky finger.
2. Have each student stretch the rubber band across the back of his or her hand and hook it onto his or her thumb.
3. Now have each student try to remove the rubber band without touching anything or using his or her other hand. Are they able to do it?

4. Discuss how the severity of the entanglement would be much more severe for a wild animal.

Suggestions:

1. Have students time each other as they try to untangle themselves.
2. Graph the results.

Extensions

1. Have students make a list of items that could potentially entangle or harm various animals.
2. Have your students research two animal species that could become entangled in debris.
3. Organize a field trip for your class to clean up an area near your school or along a local water way.
4. Visit the **Ocean Conservancy Web site** to learn more about aquatic debris, including the “dirty dozen” collected at annual national and international cleanup events. www.cmc-ocean.org/cleanupbro/index.php3
5. Visit the National Oceanic and Atmospheric Associations website to learn more about marine debris and what you can do to prevent it at marinedebris.noaa.gov

Summary

How many students were successful at freeing themselves from the rubber band? How many were not? Discuss how this might be a realistic example of the number of animals that are able to free themselves when entangled in trash. Have a class discussion about how trash enters the ecosystem and what the students can do to help keep trash out of it.