**EXPLORE** 

# Litter Tag



# summary

Students play a tag game to understand the harmful effects litter has on Great Lakes organisms.

# objectives

- Discuss how garbage harms wildlife.
- List ways that humans can help solve this problem.

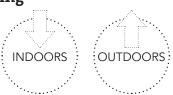
## prerequisite

Sound Picture or What's the Environment?, Who Lives In My Community? and Take a Good Look

# vocabulary

None

# setting



# subjects

Environmental Science, Social Studies

#### standards

This Great Lakes in My World activity is aligned to the Common Core State Standards and to state learning standards in:

Illinois

Indiana

Michigan

Minnesota

New York

Ohio

Pennsylvania

Wisconsin

This alignment is available on your Great Lakes in My World CD in the "Standards" folder and on-line at http://www.greatlakes.org/ GLiMWstandards.

#### materials

- Cigarette butt
- Balloon with string
- Fishing line
- Plastic bag

### background

When litter is put in the environment, either intentionally, or by accident, it generally has negative effects. In the Great Lakes, litter can decrease tourism, diminish community pride, and cause harm to plants, animals and people.

Data collected from garbage collected along the shoreline of the Great Lakes shows the most frequently found items. Some of the top items found (by number of pieces picked up) are listed below, along with some of the problems associated with them.

Cigarette Butts: Cigarette filters are the most numerous item found during beach cleanups. Filters are made of a plastic, cellulose acetate, which can take up to five years to break down and even longer to decompose. Children at play on the beach can put cigarette filters in their mouths. A study has also been done showing that the chemicals in cigarettes can be harmful to microorganisms that support other wildlife.

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Balloons: Balloons and their ribbons entangle animals and are sometimes ingested, when mistaken for food, causing injury or death. Balloons can also pose a problem for boaters if their propellers get tangled up in the string.

Food and Food Packaging: Bags can entangle animals or be accidentally ingested by them, causing injury or death. Leftover food may attract additional wildlife to the beach, resulting in increased animal droppings, which can lead to high bacteria levels in the water. High bacteria levels are a reason for beach closings.

Beverage bottles (glass, aluminum, plastic): This could indicate the need for recycling containers on the beach. Broken glass and sharp points on aluminum can injure people as well as wildlife.

Fishing line: Fishing line can entangle animals, which can cause injury to wildlife.

### procedure

- Ask students what they like best about going to the beach.
   Ask them what some of the problems are that they see at the beach. Eventually, they should get to litter that they have seen there. Ask students what kind of problems litter might cause. Use background information to help them get a complete picture.
- Ask students to think of ways to help solve this problem.
   Pick up the garbage, or do not leave it in the environment in the first place. Humans are both the problem and the solution.
- 3. In an outdoor area or a gym, divide the students into four groups representing litter, birds, fish and humans. For a class of 26 there should be four humans, four litter, nine birds and nine fish. Have the students decide which type of

- litter, bird or fish they will be. Explain that the litter will be chasing the birds and fish, trying to tag them. Once a bird or fish is tagged, they are frozen.
- 4. After one minute, the humans will come into the game to "rescue" the tagged fish and birds. When rescuing a bird or fish, two humans must hold hands with the animal in the middle and yell, "One, two, three fish (or bird) free!" And then, after several minutes, choose one or two humans to be Beach Captains. The Beach Captains can still free the animals with the other humans, but now they can chase the litter, too. If the litter is tagged, they must sit out. The game ends when the beach captains tag all the litter, or sooner, if students are tired. If time allows, switch roles and play again.

#### wrap-up

- 1. Bring the group back together and ask students to talk about what they learned or what the game made them think about with regard to litter and the Great Lakes.
- 2. Discuss the following questions: Do animals really get caught in litter? Yes, plastic bags, string and netting cause many problems for wildlife.

How realistic is it to say that litter "chases" animals? Animals do not generally suspect that litter will hurt them. It can take animals by surprise when litter entangles them. How can humans help solve this problem? By picking up after themselves, telling others the harm that litter can do.

#### extension

If the students consider litter to be a problem in their community, have the class consider what actions they could take to help solve this problem.

- Participate in the Alliance for the Great Lakes' Adopt-a-Beach™ program.
- Send notes home about the International Coastal Cleanup, which occurs on the third Saturday of every September.
- Students put their litter solutions into action.

#### assessment

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