

Classroom Resources:



Trashy Timeline

Grade Levels: 5 - 12

Objective: The students will learn about ocean habitats and how humans can help endangered animals, including sea turtles.

Materials:

22 index cards

4 baby diapers (2 labeled “disposable”, 2 labeled “biodegradable”)

2 of each of the following:

- paper towel
- newspaper
- cardboard cereal box
- waxed milk carton
- Styrofoam cup
- Aluminum can
- Plastic 6-pack soda rings
- Plastic soda bottle
- Piece of monofilament fishing line

Procedure:

Use the following biodegradation timeline for this activity -

- paper towel - 2-4 weeks to biodegrade
- newspaper - 6 weeks
- cardboard cereal box - 2 months
- waxed milk carton - 3 months
- Biodegradable baby diaper - 1 year
- Styrofoam cup - 50 years
- Aluminum can - 200 years
- Plastic 6-pack soda rings - 400 years
- Plastic soda bottle - 450 years
- Disposable baby diaper - 450 years
- Piece of monofilament fishing line - 600 years

1. Label the index cards with the above lengths of time (2 cards for each length of time - 1 card for each group).
2. Set up 2 tables on opposite sides of the room from each other. Tape the index cards in chronological order to the table (the students will rearrange the items according to the biodegradation timeline).
3. Before you begin the race, discuss with the students the definition of marine debris. Have the students make a list of items that are considered marine debris.
4. Discuss how marine debris might impact different ocean animal species like sea turtles, manatees, dolphins and sea birds. Explain that it is difficult and sometimes impossible for these animals to disentangle themselves from nets and fishing line. Ask the students how long they think it might take for some of the items on our list to biodegrade, or breakdown, in the environment. How long would it take for fishing line to fall off an animal's flipper? How about a six-pack ring to fall off of an animals' neck?
5. Divide the students into two teams. Hand each team a set of objects (from the list). Explain that their task is to place these items in order of how long it will take them to biodegrade.
6. When each team thinks they have the timeline correct, they raise their hand and you check their timeline. Tell them which items are correct and then give them a chance to place the incorrect items in the right space on the timeline until they have all the items correct. The team to correctly place all objects on the timeline first wins!

Extension Activity:

What can be done about the problem of marine debris? What can we each do in our own lives to help? REDUCE, REUSE, RECYCLE! Dispose of waste properly!