



### Objectives

Students will be able to...

- Identify the leading contributor to ocean debris.
- Participate in a public service project.
- Examine the severe impact human waste, particularly plastics, can have on marine life.

### Time Needed

45-90 minutes

### Materials

- Protective gloves
- Large trash and recycling bags
- "Clean It Up!" worksheet
- Pens

### Clean It Up!

**Overview:** Students will be exposed to the detrimental impact of human beings on the ocean and its inhabitants. Students will participate in a service learning project, cleaning up and logging the amount of plastic and non-plastic litter they find in a designated area.

### Procedure:

#### Introduction

Introduce the topic of the activity by telling a story of an individual marine animal affected by plastics in the ocean.

- A quick internet search will yield many results.
- Example: In the summer of 2012, an older sperm whale calf was found deceased and floating off an island in Greece. During the necropsy, scientists discovered 100 plastic bags in the sperm whale's stomach. One scientist stated, "All [of] our civilization was in the stomach of this whale." There were garbage bags, plastic covers from food you would find in a supermarket, plastic ropes, nets and even a plastic bag with a full address and telephone number from a local restaurant. (Source: <http://oceanwildthings.com/2012/06/sperm-whale-death-by-100-plastic-bags/>)

#### Plastic Debris and Litter

Share with students some of the facts about plastics and their effects.

- Plastic accounts for 90% of debris in the oceans.
- 80% of all ocean debris comes from the land--swept by wind or washed by rain off streets into drains, down streams and rivers and out to the sea.
- Plastic exists as tiny particles in every part of the ocean. In some areas there is six times more plastic than plankton.
- Many marine animals mistake plastic for food and swallow it, with painful and often fatal results.



#### Brainstorming Solutions

1. Ask students what they believe can be done to help solve this problem. Solicit solutions that may come from different actors (i.e. government, companies, individuals, organizations).



**Insider Tips**

- Safety first! When choosing an area to clean up, keep in mind what types of litter and refuse the students might come across.

**Classroom Teachers**

- As an extension activity, have students choose one item that they collected and answer the following questions:
  - Could this item have been recycled?
  - Could this item have been reused?
  - Could this item have been replaced by another item?
- To extend this activity into two days, allow the students to choose the clean up site. Prior to the clean up date, have the students research what type of litter they might find at the site, and why it is there.

**Outside Humane Educators**

- If possible, invite other adults, teachers, or chaperones to the clean up for added supervision.

**Resource Links****Protecting Marine Animals**

- <http://www.ifaw.org/united-states/our-work/education/beneath-waves>

**Clean It Up!** (continued)**Clean It Up!**

1. Instruct the class that you will be participating in a clean up project to do your part.
2. Before the clean up begins, share the “Clean It Up!” worksheet. Explain that students should record every item they collect, as well as its approximate weight. You may want to estimate the weight of some items in your classroom as practice.
3. Divide the students into small groups. Appoint one member of each group to collect and record the group’s data. The rest should focus on picking up refuse.
  - Make sure that students in charge of picking up items are wearing gloves.
  - Each group should be given a garbage bag and a bag to place recyclable items.
  - Remind students not to pick up sharp objects or anything too heavy or dangerous.

**Wrap Up:**

1. Bring the students back to the classroom and debrief on the activity.
2. Ask the class how much refuse they collected and what was the most unusual item they found.

# Clean It Up!

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Did you know that almost 80 percent of debris found in the ocean comes from the land? Help reduce that percentage by cleaning up an area of your community.

Plastic		
Item Collected	Number Found	Approx. Weight

Non-Plastic		
Item Collected	Number Found	Approx. Weight

Total bags collected: \_\_\_\_\_ What was the most unusual item you found? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_