OCEAN CHAMPIONS CLEANUP EXPERIENCE

After reading/listening to the *Ocean Champions – A Journey into Seas of Plastic* story, students should have a good understanding of plastic debris. Further learning can first be pursued via the Teaching Aids on the https://oceanchampions.ca/ website. Planning and participating in a cleanup will help reinforce the ideas and principles learned.

Planning a cleanup will enable participants to explore what is upstream from the ocean. They will have the opportunity to learn what species are present in their local ecosystems and to make decisions on where they think their cleanup will be most impactful based on their investigations. This is all in addition to simply having the opportunity to take direct action in the battle against marine debris.

It is important to remember cleanups come in all forms. There is no need to live in close proximity to a beach, shoreline, or even water. The ocean is always downstream. Therefore, cleanups taking place at a local park or even a school playground are just as impactful and can reinforce the same principles as beach or river cleanups.

BEFORE THE CLEANUP

If time allows, it can be very rewarding for the participants to assist in the decision-making process regarding where to hold the cleanup.* However, if time or other situational constraints preclude participants from this step, instructors can choose a location, keeping in mind the questions below.

CHOOSE A LOCATION

To determine a great cleanup location, include participants using the following discussion prompts. These questions can be addressed individually as a take-home activity, in small groups, or in a large group discussion. If time is limited, key questions are starred.

- *Where in our local community do you think would be a great place to conduct a cleanup? Why do you feel this would be a great location?
- *Would this location be safe for our entire group to collect trash?
- Can you think of any safety hazards we should be aware of before we conduct our cleanup?
- *Where could the trash in this location have come from? Where would trash in this location end up? (Ask if participants need assistance with the preceding question.)
- How would trash in this area affect the surrounding environment?

• Are there any endangered or threatened species that could be impacted by our cleanup?

• *How might humans be affected (think homes, stores, schools, etc.)?

• If we host a cleanup in this location, could our actions have any negative impacts? What should we do to prevent harming the environment while we are conducting the cleanup?

• What will we do with the trash once we clean it up?

The goal of this discussion is to determine a great cleanup location. The location should be safe. If the location you wish to clean is a park, marina, private property, etc., make sure to contact the site and ask for permission to have a cleanup there on your desired date and ensure you don't need any permits. Ask the park or other site contact where the collected trash should be disposed. Most sites will offer to collect the trash and dispose of it for you. Other sites may have a dumpster on site where trash can be left, but in some cases, it may be necessary to contact a waste management organization to help dispose of the trash properly. Once you have permission, permits (if applicable) and a waste disposal plan, it is important to prepare for the cleanup day. Follow these steps to be completely prepared for the cleanup.

BE PREPARED

1. Visit the cleanup site in advance to determine:

    A. Where to set up a "home base" or meeting point

    B. Where to leave bags of trash and recyclables

    C. What areas participants will clean

2. Get your supplies. For a successful cleanup, you will need:

    A. Trash bags (or have participants bring reusable containers, like buckets)

    B. Gloves (gardening gloves or disposable latex-free gloves) for participants (or have them bring their own gloves)

    C. Container for sharp or hazardous items.

    D. A first-aid kit for minor cuts and scrapes

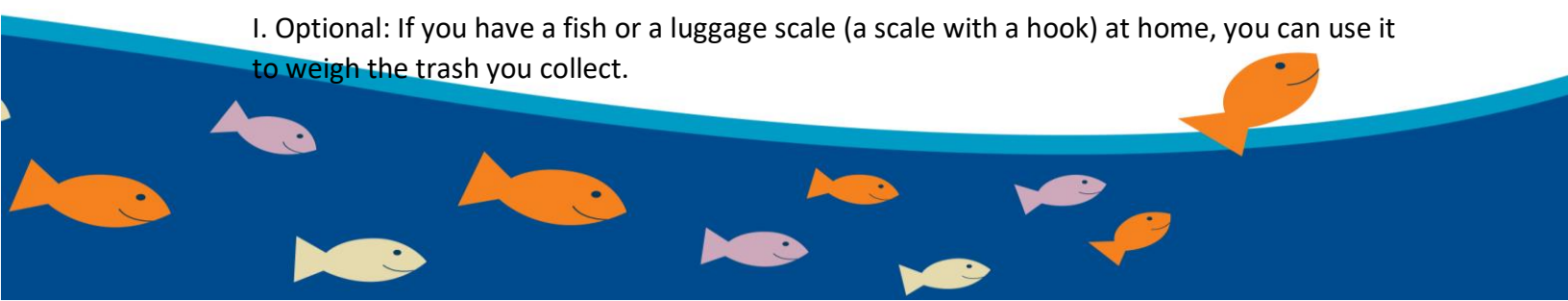
    E. A water cooler with enough water to keep all participants hydrated, especially in warm temperatures

    F. Cleanup data forms to record the items picked up (included at the end of this document)

    G. Pens or pencils

    H. Optional: If you have a few clipboards, these are helpful for holding data forms.

    I. Optional: If you have a fish or a luggage scale (a scale with a hook) at home, you can use it to weigh the trash you collect.



3. For the safety of you and your participants, keep the following in mind:

A. Review what to do in case of a health emergency (heat exhaustion or heatstroke, broken bone, etc.). It might be helpful to have another leader on hand that has basic medical training or knows first aid.

B. When visiting the site, look for natural and man-made safety hazards, such as rocky areas, highly variable tides, poisonous plants, high-speed roads, power lines, etc. If necessary, inform participants that they may need to dress accordingly, such as wearing long pants or closed-toed shoes.

C. Plan ahead for handling sharp items, including syringes or pieces of broken glass. We recommend disposing of these items in a container with a tight screw lid, such as an empty liquid laundry detergent bottle that you have clearly labeled. Ask younger participants to point these objects out to an adult so they can be disposed of properly.

D. Find out how to contact the local Fish and Wildlife Service office, or the equivalent, in your area, in case you encounter any dead, entangled or injured wildlife. You can report these finds on your data form, but be sure to leave any wildlife handling to the experts.

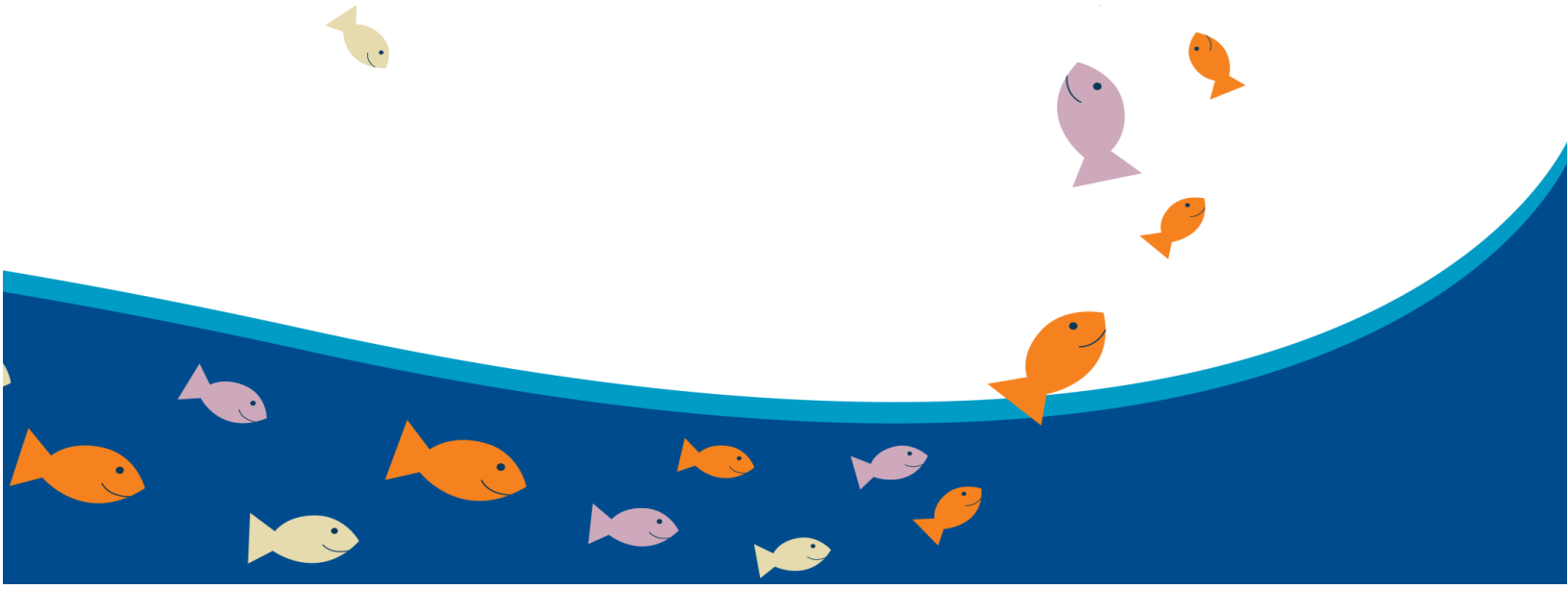
GUIDANCE FOR COMPLIANCE

The following best practices are generally used for NOAA Marine Debris Program (MDP) activities to ensure compliance with applicable laws for environmental protection and to minimize or avoid potential impacts on environmental resources. Some practices are species, location, and seasonal dependent and may have been developed in consultation with the National Marine Fisheries Service (NMFS) or the United States Fish and Wildlife Service (FWS).

• General Conservation: All activities avoid or conserve the habitat of any endangered or threatened species. This may include using buffer areas around sensitive resources (e.g., rare plants or archeological sites would be pre-identified and avoided). Other examples include not coming within three nautical miles of a Steller sea lion critical habitat without applicable federal permits; observing a buffer of at least 100 yards from an endangered species rookery; avoiding salmon spawning areas during spawning season; and avoiding piping plover nesting areas during nesting season.

• Project Timing: Timing of activities would be limited to periods when important species are least likely to be in the project area (e.g., pre-determined windows of time when anadromous fish are not expected to be utilizing the project area) to minimize any potential impacts to living marine resources. Actions are limited to times when vulnerable life history stages of protected species are not present to avoid potential adverse impacts on that life stage and overall to minimize adverse impacts to that species. The MDP would consult with the NMFS Office of Protected Resources (OPR) before working in areas that are known to be utilized by endangered fish or other animals.

• Sea Turtles: Sea turtles are susceptible to artificial lighting that is visible from the beach, barriers on the beach, and disturbance of the nest site by humans and predators. Avoid using light when possible; otherwise shield the light so it does not reach the beach. Minimize physical disturbance of beach material to reduce the likelihood of adverse impact to a sea turtle nest. Use animal-proof waste containers to minimize attraction of non-native predators to beach areas.

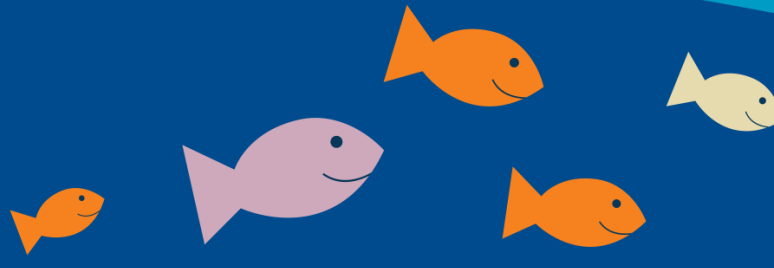


DURING THE CLEANUP

To ensure a smooth and successful cleanup experience, be as prepared as possible before participants arrive. Designate your check-in station/meeting point and trash drop-off location.

Once on site, be sure to address the following before starting the clean-up:

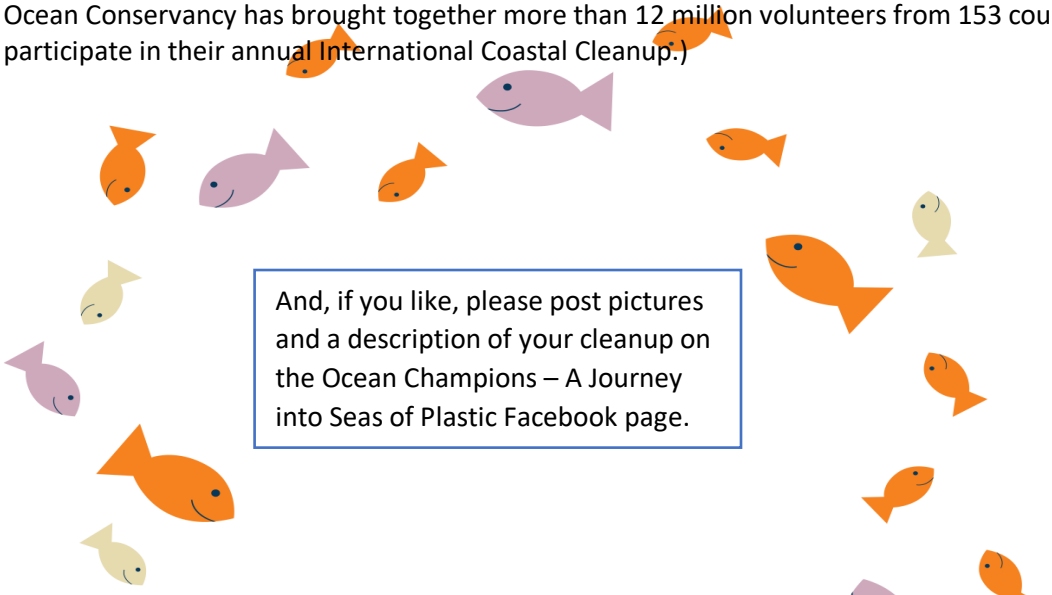
- **Emphasize the importance** of safety. Instruct participants to stay in groups and within eye and voice contact of adults. This can NOT be an individual activity.
- **Point out any safety hazards** and recommend how to avoid these hazards. Remind participants what to do when they encounter items such as sharp objects or dead, entangled or injured animals. Younger participants should not touch any sharp items; have participants point these items out to an adult who will safely dispose of the item.
- **Remind students** they are scientists for the day: Today we are all scientists! As scientists, we must collect data while cleaning up. The data we collect will not only tell us more about what items we are finding locally, but will also be added together with data from around the world to create a global picture of the marine debris problem. These data will help us think about local solutions to marine debris. Ask participants to use tick marks to record debris items; words such as "lots" and "many" are not useful for data analysis.
- **To make data collection easier,** participants should work in small teams with each team focused on one data card.
- **If you have other leaders' assistance,** establish a point-person to stay at the meeting place so there is always one person to handle questions, late arrivals, emergencies, etc.
- **Inform participants** what to do with the filled bags of trash, and set an end time for the cleanup so that everyone returns together.
- **Take before and after photos** of the cleanup site as well as photos of your participants in action and a final group picture with all of the trash collected. One of the best parts of a cleanup is documenting the participants' impact.
- **Optional:** If you have a scale with a hook, use it to weigh the trash collected. This can be done at the end as a group or as participants return with full trash bags. If you don't have a scale, you can use a standard conversion of 15 pounds per trash bag to estimate the overall weight of your collected trash.
- **As the participants finish,** collect all completed data forms. Make sure participants note how many people worked on each card.
- **All Preventing Ocean Trash activities** can take place at the cleanup site, once all participants have returned to the meeting spot. If short on time, conduct a short group discussion with participants about their initial reactions to the cleanup and the items they collected. Discussion prompts are provided in the next section.
- **When the group is ready** to leave, ensure all trash is either left at a designated drop-off location or taken with you to dispose of properly. No materials should be left behind.



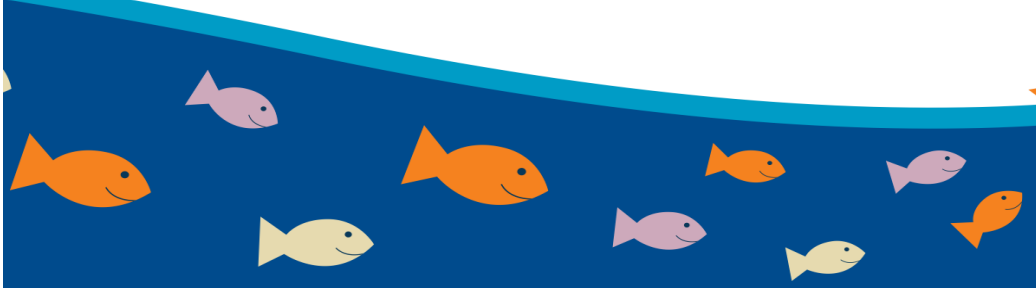
AFTER THE CLEANUP

There are three data forms at the end of this activity. Choose the one that best suits your cleanup activity:

1. A one-page form from the North American Marine Environment Protection Agency which can be used to collect data on your cleanup solely for use in your classroom/school.
2. A two-page form for collecting shoreline debris for the Great Canadian Shoreline Cleanup. You can join an existing cleanup or start your own at https://shorelinecleanup.ca/cleanups or https://www.vanaqua.org/act/direct-action/great-canadian-shoreline-cleanup.
3. A two-page form from NOAA and Ocean Conservancy, that can be utilized if you want to add the data from your cleanup to their large database of marine debris. Please send data forms and any other pictures, stories, or reactions to:
   Email: cleanup@oceanconservancy.org
   Mail: Ocean Conservancy
   Attn: Talking Trash & Taking Action
   1300 19th St. NW, 8th Floor
   Washington, DC 20036
   Data from cleanups around the world, including yours, can be seen at http://coastalcleanupdata.org/. You can join up to enter data online. (For more than 30 years, Ocean Conservancy has brought together more than 12 million volunteers from 153 countries to participate in their annual International Coastal Cleanup.)



And, if you like, please post pictures and a description of your cleanup on the Ocean Champions – A Journey into Seas of Plastic Facebook page.



AFTER THE CLEANUP

OBJECTIVES

1. To Discuss Reactions to the Cleanup Experience
2. To Relate to the Items Collected and Their Journey
3. To Think Creatively and Critically about Ocean Trash Prevention

REACTING AND RELATING TO CLEANUP

Now that participants have learned all about marine debris and conducted their own cleanup, it is important for individuals to share their reactions to the cleanup experience. This will help conclude the program and move participants to focus on marine debris prevention. Participants now have hands-on experience with the information discussed throughout the Preliminary activities and should be ready to discuss the issue in an action oriented and prevention focused way.

ASK the participants:

- **How did this experience make you feel?**
- **Did you feel frustrated? Surprised? Motivated?**
- **Were you surprised by some of the items found?**
- **Which items surprised you the most? Why?**
- **Were you surprised by the quantity (amount) of certain items?** If you have time to total participants' data forms before the discussion, **ASK: Were you surprised by the top 5 collected?**
- **How many of the items you collected do you recognize? Do you use many of these items at home? Could any of the items be found in your lunch box?**

ACTIVITY: TALKING CRAZY TRASH

This activity can be conducted as a group at the cleanup site, directly following the cleanup and discussion, individually as a take home activity, or in the days following the cleanup in small groups.

OBJECTIVE: Participants will think critically about the journey of trash and how a specific item could have not become marine debris.

MATERIALS:

- Participants' memory of the craziest, weirdest item they collected
- (Optional) Pen/pencils/markers
- (Optional) Paper
- (Optional) Device for audio and/or video recording (can be a smart phone)
- (Optional) White board and dry erase markers

INSTRUCTIONS:

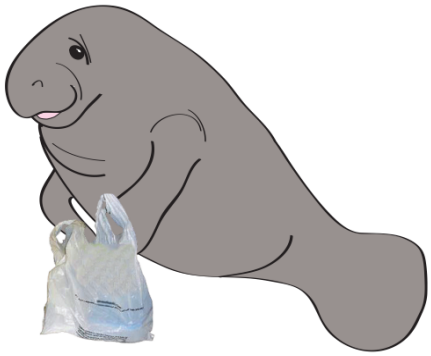
1. Have participants break into small groups (can be done individually if preferred).
2. Once in small groups, have participants share what was the craziest or weirdest item they collected during the cleanup. It is not necessary for the item to be very strange; any item will work.
3. Ask each group to pick one of the items participants shared.
4. Explain to participants that they will be creating the story of that item's journey. Most importantly, they will conclude the story with how they would have become Ocean Heroes and stopped that item from ending up where it was collected by the group.
5. Participants can choose how they would like to tell the story. They can write an actual story or poem, create a comic strip, write lyrics to a song or rap, act out the journey as a skit, or even make a video.

North American Marine Environment Protection Association®

NAMEPA

Trash Data Form

Record all trash items you find below using tally marks. Add up your totals at the end of each row.



MOST LIKELY TO FIND ITEMS	TOTAL		TOTAL
Cigarette Butts:	_____	Beverage Bottles (Plastic):	_____
Food Wrappers:	_____	Beverage Bottles (Glass):	_____
Take Out/Away Containers (Plastic):	_____	Beverage Cans:	_____
Take Out/Away Containers (Foam):	_____	Plastic Bags:	_____
Bottle Caps (Plastic):	_____	Paper Bags:	_____
Bottle Caps (Metal):	_____	Cups & Plates (Paper):	_____
Lids (Plastic):	_____	Cups & Plates (Plastic):	_____
Straws/Stirrers:	_____	Cups & Plates (Foam):	_____
Forks, Knives, Spoons:	_____		

FISHING GEAR	TOTAL		TOTAL
Fishing Buoys, Pots & Traps:	_____	Rope:	_____
Fishing Net & Pieces:	_____	Fishing Line:	_____

PACKAGING	TOTAL		TOTAL
6-Pack Holders:	_____	Other Plastic Bottles:	_____
Other Plastic/Foam Packaging:	_____	Strapping Bands:	_____

OTHER ITEMS	TALLY	TOTAL
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

GREAT CANADIAN Shoreline Cleanup™ PRESENTED BY Loblaw COMPANIES LIMITED

A CONSERVATION INITIATIVE OF vancouver aquarium™ WWF®

INDIVIDUAL DATA CARD

DEAR CLEANUP PARTICIPANT(S):

Thank you for participating in the Great Canadian Shoreline Cleanup, presented by Loblaw Companies Limited. The commitment you have made today is the first step to ensuring we can enjoy cleaner waterways all year-round. We will be submitting the data you collect today during the cleanup to the Ocean Conservancy's International Coastal Cleanup. Your data is an invaluable part of our effort to educate Canadians about the scale and serious consequences of the global marine debris problem. Thank you. We could not do it without your help! **Please fill out this card with your litter values and return it to your Site Coordinator once complete.**

1. CLEANUP SITE INFORMATION

Category of Cleanup (choose one): ☐ Coastal ☐ Inland Waterway (River/Stream/Tributary/Lake)

Type of Cleanup (choose one): ☐ Beach/Shoreline ☐ Watercraft (powerboat, sailboat, kayak or canoe)

Province / Territory _____

City _____

Cleanup Site Name (beach, park, etc.) _____

Name of Site Coordinator _____

Today's Date: _____ Number of People Working on This Card _____

Est. Weight Collected _____ kgs or _____ lbs. Distance Cleaned _____ km or _____ miles

Number of Trash Bags Filled _____ Number of Recycling Bags Filled _____

2. CONTACT INFORMATION (EACH INDIVIDUAL TEAM MEMBER)

1. Name _____
   Email Address _____
2. Name _____
   Email Address _____
3. Name _____
   Email Address _____
4. Name _____
   Email Address _____

3. ENTANGLED ANIMALS

List all entangled animals found during the cleanup. Record the type of litter they were entangled in, for example: fishing line, fishing nets, balloon string/ribbon, crab/lobster/fish traps, plastic bags, rope, six-pack rings, wire and other items (please specify).

Animal	Alive or Dead	Item of Entanglement

4. WHAT WAS THE MOST UNUSUAL ITEM YOU COLLECTED? _____

NATIONAL SUPPORTER

RBC RBC Blue Water Project™

CONSERVATION SUPPORTERS

Ocean Conservancy Start a Sea Change; CAZA CAZAC Canadian Association of Zoos and Aquariums / Association des zoos et aquariums du Canada; British Columbia BC Parks

Items Collected

Please pick up ALL litter items that you find, but only record information for the items listed below. Keep a count of your items using tick marks and enter the item totals in the box.

Example: 8 **Beverage Cans** 𝍸 III

SHORELINE AND RECREATIONAL ACTIVITIES

Litter from fast food, beach-goers, sports/games, festivals, litter from streets/storm drains, etc.

- ☐ Bags (Paper) _____
- ☐ Bags (Plastic) _____
- ☐ Balloons _____
- ☐ Beverage Bottles (Plastic) 2 liters or less _____
- ☐ Glass Beverage Bottles _____
- ☐ Beverage Cans _____
- ☐ Caps, Lids _____
- ☐ Clothing, Shoes _____
- ☐ Cups, Plates, Forks, Knives, Spoons _____
- ☐ Food Wrappers/Containers _____
- ☐ Pull Tabs _____
- ☐ 6-Pack Holders _____
- ☐ Shotgun Shells/Wadding _____
- ☐ Straws, Stirrers _____
- ☐ Toys _____

OCEAN/WATERWAY ACTIVITIES

Litter from recreational/commercial fishing and boat/vessel operations

- ☐ Bait Containers/Packaging _____
- ☐ Bleach/Cleaner Bottles _____
- ☐ Buoys/Floats _____
- ☐ Crab/Lobster/Fish Traps _____
- ☐ Crates _____
- ☐ Fishing Line _____
- ☐ Fishing Lures/Light Sticks _____
- ☐ Fishing Nets _____
- ☐ Light Bulbs/Tubes _____
- ☐ Oil/Lube Bottles _____
- ☐ Pallets _____
- ☐ Plastic Sheeting/Tarps _____
- ☐ Rope _____
- ☐ Strapping Bands _____

SMOKING-RELATED ACTIVITIES

- ☐ Cigarettes/Cigarette Filters _____
- ☐ Cigarette Lighters _____
- ☐ Cigar Tips _____
- ☐ Tobacco Packaging/Wrappers _____

DUMPING ACTIVITIES

- ☐ Appliances (refrigerators, washers, etc.) _____
- ☐ Batteries _____
- ☐ Building Materials _____
- ☐ Cars/Car Parts _____
- ☐ 55-Gal. Drums _____
- ☐ Tires _____

MEDICAL/PERSONAL HYGIENE

- ☐ Condoms _____
- ☐ Diapers _____
- ☐ Syringes _____
- ☐ Tampons/Tampon Applicators _____

LITTER ITEMS OF LOCAL CONCERN

Identify and count 3 other items found that concern you

- ☐ _____
- ☐ _____
- ☐ _____

Talking Trash & Taking Action
Cleanup Data Form

Dear Marine Debris Explorers,

Today you are a scientist! As a scientist, collecting data is very important. Data help answer questions, develop solutions and inform future actions. The data you collect today will not only tell a story of what items you are finding locally. They will also be compiled with data from around the world to create a global picture of the marine debris problem.

Here's how to collect great data:

1 GROUP UP
Working in pairs or small groups makes collecting data safe and simple; switch off collecting trash and recording data.

2 GRAB A DATA FORM
Each group needs a data form and pen/pencil before heading out to cleanup

3 TICK & TOTAL
Make tick marks next to the corresponding items as trash is collected. Words like "lots" aren't helpful. Total each item's tick marks at the end of the Cleanup

4 GIVE IT LOCAL FLAIR
Fill out the local information below: Where are you? How many scientists joined you? How far did you go? How much do your finds weigh?

Cleanup Site Information:

Site Name:

Nearest Crossroad or Landmark:

County:

State:

Country:

Miles Cleaned (check one): ☐ 1/4 ☐ 1/2 ☐ 3/4 ☐ 1 Other: ☐ Total Weight of Trash Collected: ☐ lbs.

Site Type (check one of the boxes):

☐ Inland (no water) ☐ Freshwater (river, lake) ☐ Saltwater (beach, estuary)

Number of Scientists Working on This Card:

☐ Scientists (Youth) ☐ Senior Scientists (Adults)

Ocean Conservancy

Talking Trash & Taking Action Cleanup Data Form

MOST LIKELY TO FIND ITEMS:

Cigarette Butts:	=	Beverage Bottles (Plastic)	=
Food Wrappers (candy, chips, etc.):	=	Beverage Bottles (Glass):	=
Take Out/Away Containers (Plastic):	=	Beverage Cans:	=
Take Out/Away Containers (Foam):	=	Grocery Bags (Plastic):	=
Bottle Caps (Plastic):	=	Other Plastic Bags:	=
Bottle Caps (Metal):	=	Paper Bags:	=
Lids (Plastic):	=	Cups & Plates (Paper):	=
Straws/Stirrers:	=	Cups & Plates (Plastic):	=
Forks, Knives, Spoons:	=	Cups & Plates (Foam):	=

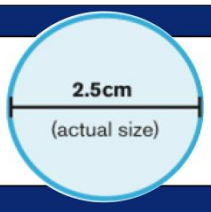
FISHING GEAR:

Fishing Line (1 yard/meter = 1 piece):	=	Other Plastic/Foam Packaging:	=
Rope (1 yard/meter = 1 piece):	=	Other Plastic Bottles (milk, bleach, etc.):	=

OTHER TRASH:

Balloons:	=	Crazy Item 1:	
Clothing & Towels:	=	Crazy Item 2:	
Toys:	=	Crazy Item 3:	

TINY TRASH LESS THAN 2.5CM:



Foam Pieces	=	
Glass Pieces	=	
Plastic Pieces	=	

Ocean Conservancy

SOURCED FROM:

National Oceanic and Atmospheric Administration (NOAA), Marine Debris Program, https://marinedebris.noaa.gov/: Talking Trash and Taking Action: Ocean Conservancy and NOAA Marine Debris

North American Marine Environment Protection Association (NAMEPA)

Great Canadian Shoreline Cleanup

COMPILED AND EDITED BY Michelle Mech, Nereida Marine Education