



PLASTIC FREE SCHOOLS HAWAII

# Marine Debris Sorting & Identification Lesson

Collecting, sorting, and investigating marine debris is a hands-on, project-based activity that allows students to look at their environment through the lens of a scientist. By analyzing data, students develop an awareness, ask questions, and determine positive solutions for the real life issues associated with marine debris.

## OBJECTIVE:

Students will sort marine debris, tally items, and evaluate data in order to draw conclusions on prevalent waste sources and make suggestions that can reduce marine debris in our environment.

## EQUIPMENT:

- Debris collected
- ICC Data Card
- Scale(s)
- Garden Gloves
- First Aid Kit

## PROCEDURE:

1. Form small teams. Each team receives their own marine debris samples, ICC Data Card and gloves for sorting.
2. Fill out sections 1 & 2 on ICC Data Card.
3. Using a scale, weigh your team's total marine debris.
4. Sort your debris samples into groups of similar items based on the categories on page 2 of the ICC Data Card.
5. Tally and record the number of items in each category your team has sorted.
6. Separate recyclables & items for upcycling by Method (2,4 & 5 hard plastic, not opaque).
7. Clean up. Samples of marine debris should be kept as a resource for future classes. Other plastic debris should be disposed of safely and securely in the trash.

## TEAM DISCUSSION:

In your teams, discuss and record your answers to the following questions.

1. What are the three most prevalent debris items from your data card?
2. Where did the debris come from? Is the source land based or ocean based? What indicators did you use to make these assumptions?
3. Identify and describe what effects the debris you have found might have on marine life.
4. How can individuals, businesses or legislative policy help to mitigate this kind of debris?

## CLASS DISCUSSION:

1. Send one team member to record your results on the collective table to create a class-wide tally.
2. Share your discussion thoughts and conclusions with the entire class.
3. What do the collective results reveal about marine debris and what can be done to get rid of it?

Plastic Free Schools is a program of

kōkua hawaii foundation



[www.kokuahawaiifoundation.org/plasticfreeschools](http://www.kokuahawaiifoundation.org/plasticfreeschools)



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## EXTENSION ACTIVITIES:

1. Have each team make a bar and pie graph of their data findings. Make another set of graphs for entire class data.
2. Create artwork or come up with other creative ways to reuse or recycle the debris to showcase environmental issues at school.
3. Write an investigative report or newspaper article on the state of your beach or local environment, based on the findings from your beach excursion and marine debris sorting. Reports and articles can be submitted to local publications or presented to the school.
4. Organize a beach or town cleanup day and get students, parents, teachers, businesses and the entire community involved.
5. Talk with people in the community about the things they have found washed up on the beach. Video or audio record their stories to create an oral history presentation.
6. Investigate how marine debris is traveling around the world and theorize where it might have come from and where it might end up next.
7. Envision a world where there is no single-use plastic. What would daily life look like? How would it be different? Communicate your ideas through words, songs or pictures.
8. Do a classroom, cafeteria or school-wide waste audit and track the amount of plastic waste for one day.

Discuss the ways in which your school community can reduce single-use plastics on campus. Think outside the box by merging science and math with the arts to find creative ways to share what you've learned and be part of the solution. Put your ideas into action by launching a Plastic Free Schools campaign.



**For more information visit**

[WWW.KOKUAHAWAIIFOUNDATION.ORG/PLASTICFREESCHOOLS](http://WWW.KOKUAHAWAIIFOUNDATION.ORG/PLASTICFREESCHOOLS)

*This lesson has been modified from the Tangaroa Blue Ocean Care Society, Marine Debris Education Kit.*

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