



# MARINE DEBRIS IN HAWAII: LEARNING GUIDE

Lesson plans and activities created for your classroom

*Best suited for: Grades 5-8*

## RELATED NGSS/OCEAN LITERACY BENCHMARKS

- [MS-LS4-2](#): Construct an argument supported by empirical evidence that changes the physical and biological components of an ecosystem affect populations.
- [5-ESS3-1](#): Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
- [MS-LS2-5](#): Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
- [OL4](#): The Earth has one big ocean with many different features.
- [OL5](#): The ocean supports a great diversity of life and organisms.
- [OL6](#): The oceans and humans are inextricably connected.

## BACKGROUND & OVERVIEW

**Marine debris**, such as plastic pollution and fishing gear that has been left behind, is a global problem. Having so much marine debris in our oceans is not only a risk to the animals that call it home, but human health and the health of the marine ecosystem as a whole. This learning guide will introduce the concept of marine debris, what it means for our ocean, and how to help address this problem. The activities in this learning guide should help students conceptualize ocean health. It is designed for grades 5-8 but can be adapted across the elementary and high school level by the instructor.

You can choose and modify the activities within the learning guide to fit the needs of your classroom. These activities can be used to support the benchmarks above as well as delivering topics on: marine mammals, climate change, human impacts, ocean conservation, environmental stewardship, and individual responsibility. Use this learning guide in conjunction with the teaching guide which provides a more comprehensive look at the scientific aspects of marine debris and is meant to help teachers create full and complete lessons/lectures.

## LEARNING GUIDE OBJECTIVES

1. Familiarize students with the problem of marine debris including terminology
2. Explain the mechanisms of how marine debris ends up in our oceans
3. Introduce how marine debris threatens marine life and the ocean ecosystem
4. Introduce how marine debris and ocean health impacts human health
5. Discover how humans of all ages can prevent marine debris and help the ocean

## STUDENT UNDERSTANDING

1. I have a basic understanding of marine debris as a global problem, how it affects marine life, the ocean ecosystem, and human health.
2. I understand why marine debris is a global problem.
3. I understand some challenges facing our ocean, and how I can help be part of the solution.



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## VOCABULARY

**Marine debris (n):** Human-created solid waste that is left either intentionally or accidentally in the ocean

**Microplastic (n):** Small plastic particles in the environment that are generally smaller than 5 mm

**Entanglement (n):** When a species becomes caught in a material, such as marine debris

**Endangered population (n):** A species that is at risk of extinction

**Photo-degradation (n):** The alteration of materials by light, usually the break down of plastics

**Derelict fishing gear (n):** Fishing gear left behind in the ocean such as nets, line, and hooks

**Gyre (n):** The circular current systems found in our ocean. Earth' ocean has 5.

**Ghost nets (n):** Large discarded netting from fishing activity that pollute our ocean

**Ingestion (n):** The process of consuming something, in this case, marine debris

**Satiated (adj):** Referring to how full an animal feels. The opposite of hungry.

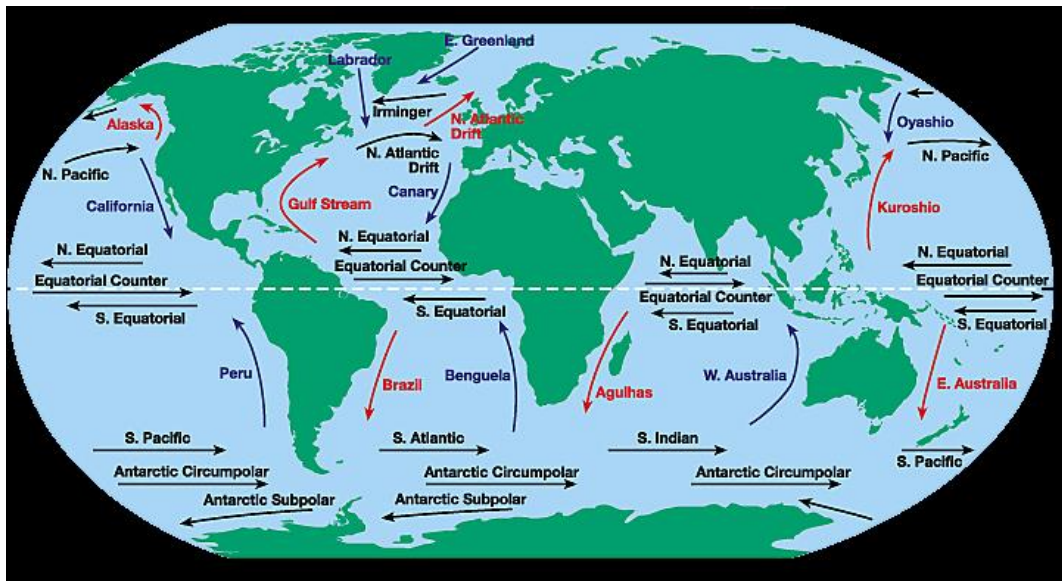
**Recreational fishing (n):** Describes small-scale fishing activity, typically by individuals for fun

**Industrial fishing (n):** Describes large-scale fishing activity, typically in the open ocean for profit

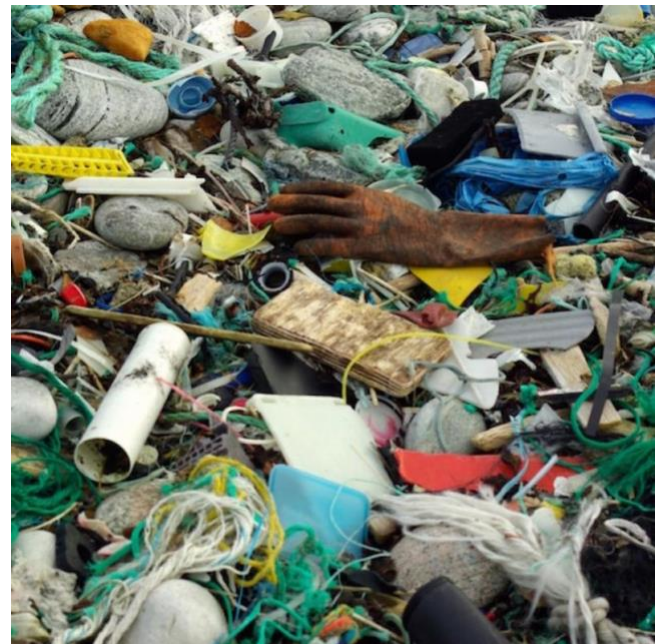
## MARINE DEBRIS IN OUR OCEANS - OVERVIEW

Marine debris is any human-created waste that is in our oceans. The most common type of marine debris is plastic, but it can be any trash like cars, take out containers, left behind fishing gear (**derelict**), and thousands of other examples. Our ocean has five basins with their own unique characteristics and current systems. These currents cause marine debris to accumulate and concentrate in the center of ocean basins, called garbage patches. Watch a [brief overview](#) video of marine debris and the **Great Pacific Garbage Patch** before learning about the impacts it has on our oceans.

**Directions:** Once you've watched the video, have students use a marker and put an X where they think "garbage patches," or collections of marine debris could be found in our ocean.



Marine debris can find its way to the ocean very easily. It can be blown from coastal environments, pass through drains, or be intentionally left behind from fishing activity. Scientists conducted a complex study to better understand the composition of marine debris within the Great Pacific Garbage Patch, or the accumulation of marine debris in the middle of the north Pacific Gyre. This study was reviewed by fellow experts in something called a "peer-review process," and published in 2018 (Lebreton et al. 2018). The findings were astonishing! They found three main findings:



1. Marine debris in the Great Pacific Garbage Patch is **increasing drastically, exponentially!**
2. 1.8 trillion pieces were estimated to be floating in the area, and **94% of that debris was microplastics.**
3. Nearly **46% of the total mass of marine debris was fishing nets.**



## MARINE DEBRIS IN OUR OCEANS - OVERVIEW

One of the most prevalent types of marine debris is microplastics, which easily pass through filtration systems and are capable of entering the marine food chain! Microplastics can also be created by larger pieces of plastic going through a process called **photo-degradation**. Some examples of microplastics are microbeads (can be found in face washes) and glitter. Let's find out how well microplastics really can make it through natural filters.

**Microplastics through a sediment filter:** We are going to see if glitter (a microplastic) is filtered out of a water sample using a simplified version of a natural sediment filter. What is a natural sediment filter? The ground has a natural filtration system using decreasing particle sizes, essentially as the water, or another substance goes through the sediment it goes through different particle sizes from big to small. In our filter we will use different sized rocks and sand to simulate the filter and see if the microplastics make it through!

### Materials:

- Drink bottle without wrapper
- Rocks of varying sizes
- Sand
- Mesh filter (aquarium filter bags)
- Glitter
- Water
- Funnel

**Directions:** Cut the bottom and top off of the drink bottle. Place the mesh filter between the bottom and the main part of the bottle, tape together. Fill the bottle with the sediments starting with sand and ending with the largest rocks. Tape the top of the bottle back on. Mix glitter into some water and using the funnel pour the mixture into the bottle and watch it drain. This may take some time so continue on and come back at the end of your lesson. There should be water and glitter in the very bottom section of your bottle!



Figure 1: General set up of the bottle



Figure 2: Rock size variation example



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The primary impacts of marine debris happen to individual marine animals but also occur on an ecosystem basis. Microplastics entering the food chain is an example of an ecosystem impact. But individual marine animals, like sea turtles, sharks, and mammals, can also be impacted by marine debris through ingestion and entanglement.

**Marine debris ingestion** is when an animal consumes the trash that is in their habitat, and it can cause internal damage or blockage, or give them the false sense that they are full (**satiation**) and result in starvation or death. **Entanglement** in marine debris can be caused by fishing gear, netting, ropes, line, rubber bands, and six-pack rings that can *wrap around marine life*. **Entanglement** can lead to injury, suffocation, and can prevent marine life from moving around to find food, breathe, or avoid predators.

These are just two of the primary impacts of marine debris. Marine debris can also cause habitat damage, transport species across oceans, and pollute beaches in areas that depend on them for their local economies. Use this information for the next activity.

**UNDERSTANDING MARINE DEBRIS IMPACTS - WORKSHEET**

After learning about marine debris in our ocean, it's very clear this is a complex problem. Depending on the type, size, and location of the marine debris in the ocean, there are different impacts. Scientists understand some of these types of impacts, but there are many that aren't fully understood yet - like how long it takes for certain items to break down and in what conditions. Some marine debris is dense, and sinks in the ocean compared to floating debris like inflated balloons. When scientists ask a question, they make observations first to gather information that may help to answer that question. Today, you're going to use your scientific skills to ask questions about the marine debris interactions below.

**Directions:** Look at the photos below using your observation skills. Answer the questions associated with each photo about how this debris would impact marine life. Discuss in partners, small groups, or as a class.



*This is a floating mass of fishing gear and other marine debris clumped together at the surface of the ocean.*

*Q: How might marine animals like sharks or dolphins interact with this debris? Why do you think that?*

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*This is a scan of a jellyfish that has ingested small pieces of plastic through filter feeding.*

*Q: How could these exact pieces of microplastics end up in a shark's stomach, even if sharks don't eat jellyfish directly?*

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*This green sea turtle is consuming a single-use plastic bag.*

*Q: Do you think the plastic bag breaks down inside, passes through the stomach, or gets stuck? How could a plastic bag hurt the digestion of a turtle?*

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*This Hawaiian monk seal is stuck in a mass of marine debris, similar to photo #1. Hawaiian monk seals are endangered.*

*Q: How would this interaction affect the ability for the seal to survive?*

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## UNDERSTANDING MARINE DEBRIS IMPACTS - WORKSHEET RUBRIC

After learning about marine debris in our ocean, it's very clear this is a complex problem. Depending on the type, size, and location of the marine debris in the ocean, there are different impacts. Scientists understand some of these types of impacts, but there are many that aren't fully understood yet - like how long it takes for certain items to break down and in what conditions. Some marine debris is dense, and sinks in the ocean compared to floating debris like inflated balloons. When scientists ask a question, they make observations first to gather information that may help to answer that question. Today, you're going to use your scientific skills to ask questions about the marine debris interactions below.

**Directions:** Look at the photos below using your observation skills. Answer the questions associated with each photo about how this debris would impact marine life. Discuss in partners, small groups, or as a class.

*This is a floating mass of fishing gear and other marine debris clumped together at the surface of the ocean.*



*Q: What type of marine animal do you think is more likely to interact with this, a shark or a dolphin? Why?*

Both could interact with this, but a dolphin breathes air and sharks do not. Therefore, a dolphin is more likely to be at the surface and interact with this debris mass.



*This is a scan of a jellyfish that has ingested small pieces of plastic through filter feeding.*

*Q: How could these exact pieces of microplastics end up in a shark's stomach, even if sharks don't eat jellyfish directly?*

When the jellyfish is eaten by a predator, the plastics will be physically transferred as well, ending up in the shark's stomach.



*This green sea turtle is consuming a single-use plastic bag.*

*Q: Do you think the plastic bag breaks down inside, passes through the stomach, or gets stuck? How could a plastic bag hurt the digestion of a turtle?*

The plastic bag likely gets stuck. It could make the turtle feel full by taking up space in the stomach. It could also prevent the turtle from eating or breathing depending on where the bag gets stuck.



*This Hawaiian monk seal is stuck in a mass of marine debris, similar to photo #1. Hawaiian monk seals are endangered.*

*Q: How would this interaction affect the ability for the seal to survive?*

The seal cannot move now, meaning it can't eat, avoid predators, or do other things necessary for survival.





## NET AND FISHING REGULATIONS: FISHING IN THE CLASSROOM ACTIVITY

Now that you understand the impact that marine debris and derelict fishing gear can have on our marine animals, let's talk about Hawaii's fishing and net regulations and why they're so important.

In Hawaii, you are not required to have a license to fish recreationally in the marine environment. However, there are some species that have restrictions and regulations in regards to their harvest. These rules are typically put into place to prevent overharvesting and to help populations remain healthy. Making sure that we fish sustainably is important, but we also want to make sure that while we are fishing we dispose of our line and gear properly to care for our marine animals and environment.

### Materials:

- Department of Aquatic Resources Fishing Booklet - can be downloaded from website and presented on the board
- Colored Paper
- Small Magnets
- String
- Skewers

### Setup:

- Cut fish out of colored paper and write type of fish and the size on one side, glue small magnet onto other
  - Type of fish can be any on the DAR fishing booklet
- Cut string into 2 ft sections
- Tie one end of the string to the kebab stick and the other end to a small magnet
- Before class spread fish out around the room

### Directions:

- Put the DAR fishing regulations up on the board
- Give the students a time of year and location that they are fishing in
- Students will go around using their "fishing poles" collecting fish. They can throw back the fish if it is a restricted species or too small for that time of year.
- Students will have only a few minutes to "fish"
- Will return to the teacher with their fish. If one of the students fish is incorrect they will be fined, a certain number of their correct fish. If they are all correct they will get to make "money" for all of those fish which can be small prizes or bragging rights.
- When the game is finished make sure students are instructed to take care of their "fishing line" properly by returning it to the teacher.

## DISCUSSION QUESTIONS AFTER ACTIVITY

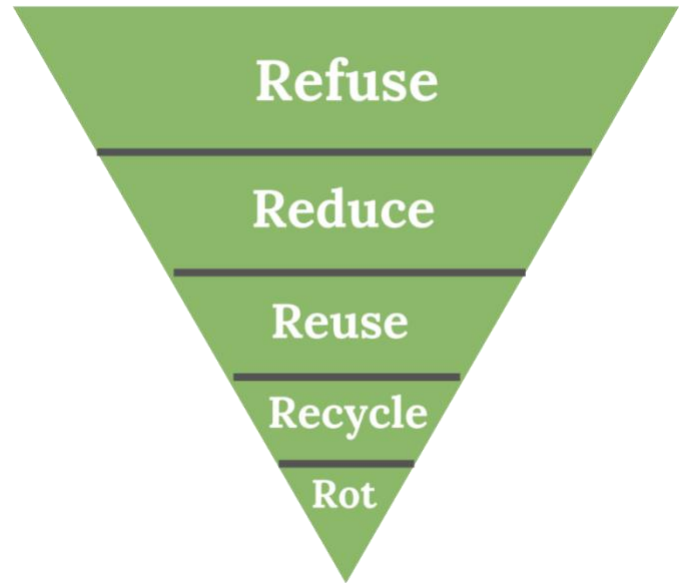
1. Why do you think fishing regulations help our fish populations stay healthy?
2. If you don't fish, what do you think you can do to help the fish populations of Hawaii?
3. If you do fish, besides following guidelines, how can you help the fish populations of Hawaii?
4. Why is it important for everyone to fish and consume sustainably?



## MARINE DEBRIS - SOLUTIONS

It's clear that the problem of marine debris isn't slowing down, it's becoming bigger and bigger. Luckily, we can all be part of reducing marine debris in our oceans by following the 5 R's of sustainable living. You can do this by:

- **Refusing items you don't need** (free pens, plastic straws, single-use items)
- **Reducing what you do need** (can you get paper packaging instead of plastic? Do you need another plastic water bottle?)
- **Reusing what you have** (examples are glass pasta sauce jars, mail packaging, and scraps)
- **Recycle what you can** - Make sure you're recycling what you can. Exactly what's recyclable varies by region - look up your area to confirm what can go in the bin!
- **Rotting the food you throw away** - Composting food scraps can help reduce waste in your kitchen that would otherwise sit in landfill. Composting food scraps for community or personal garden fertilizer because these scraps naturally break down.

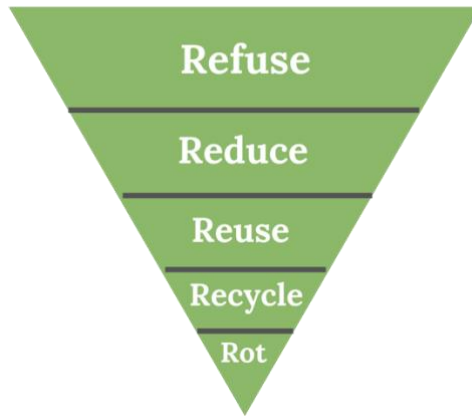


Using these 5 R's, complete the worksheet on the next page to brainstorm the ways you can reduce the marine debris entering our oceans.



Group Name: \_\_\_\_\_ Student Names: \_\_\_\_\_

*Consider the trash you often find in your community, maybe littered into the environment. Consider the trash you create - what is the most common item? Consider how common you learned that microplastics are, and how threatening fishing gear and netting can be to marine life. Afterwards, use the 5 R pyramid of sustainable living to brainstorm solutions to the most hazardous marine debris.*

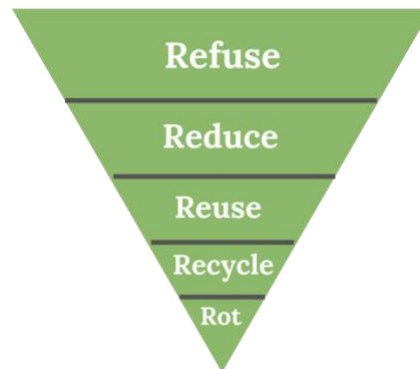


1. What are 3 things you are often offered for free that you can **refuse** going forward to reduce the amount of plastic you throw away?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  
2. What are 2 food packaging items (jars, paper, etc.) that can be reused? What can they be reused for?
  - a. Item 1: \_\_\_\_\_
  
  - b. Item 2: \_\_\_\_\_
  
3. What are 2 items that are recyclable that are found in your home? Hint: You may need to look up exactly what's recyclable in your area.  
Item 1: \_\_\_\_\_  
Item 2: \_\_\_\_\_
  
4. Guess 3 items of food scraps you think would be a good contribution to compost. Is composting available in your area? Hint: You may need to do some research.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_

## RUBRIC

Group Name: \_\_\_\_\_ Student Names: \_\_\_\_\_

Consider the trash you often find in your community, maybe littered into the environment. Consider the trash you create - what is the most common item? Consider how common you learned that microplastics are, and how threatening fishing gear and netting can be to marine life. Afterwards, use the 5 R pyramid of sustainable living to brainstorm solutions to the most hazardous marine debris.



5. Microplastics are very, very common in the ocean, where they can enter the marine food chain. What are 3 things you are often offered for free that you can **refuse** going forward to reduce the amount of plastic you throw away?
  - a. Anything can work that is single-use, and it will depend on the student. Some examples could be: free pens, straws, utensils if you have your own, plastic bags if you have your own, "sample" products given away for free, etc.
6. What are 2 food packaging items (jars, paper, etc.) that can be reused? What can they be reused for?
  - a. Many things can be reused and it will depend on the students answer. Glass can be reused over and over to repack other things, for plants, gifts, etc. Plastic bags can be reused for trash can liners, giving things away to guests, to pick up trash. Paper bags can be reused for the same things as well.
7. What are 2 items that are recyclable in your region that are found in your home? Hint: You may need to look up exactly what's recyclable in your area.
  - a. This answer will vary based on where you live. For the most part, paper, cardboard (clean), and glass is recyclable, but look up exactly what's recyclable in your area with your group/class to make sure.
8. Guess 3 items of food scraps you think would be a good contribution to compost. Is composting available in your area? Hint: You may need to do some research.
  - a. Examples may vary by region, so look up if composting services are available in your region. Some examples of likely answers are fruit peels, fruit scraps (the top of strawberries, apple cores), hair that accumulates in your brush, coffee grinds, unwaxed paper, or old food that's gone bad.



## UNDERSTANDING YOUR CONTRIBUTION ACTIVITY

### OPTION 1: OUTDOOR CLEANUP

*If you have access to an outdoor area near the classroom, students will conduct a short outdoor cleanup. If not, look at option 2. With an understanding of marine debris and the impact of litter on the ocean, students will break into small groups and do a short outdoor cleanup in the environment. They should have an understanding that even if you are not near a coast, litter can easily end up in the ocean. Students will fill out the cleanup worksheet on the next page during their cleanup. Conclude with a class discussion on what they found, how they can reduce that item, and how those items, if found in the ocean, can impact marine life.*

**Optional bonus:** *students with the most trash will win a prize! Prize idea: reusable bags for each student to take home and use in their everyday lives.*

**Materials:**

1. Gloves (optional)
2. Hand sanitizer
3. Cleanup worksheet/pencil
4. A reusable bag to carry items

**Directions:**

*With your group, explore the outdoor environment near your classroom and remove the trash, plastic, or litter you find. Record what you find, and consider how these items could impact marine animals if they end up in the ocean. Brainstorm actions you can take to minimize waste. Consider opting for reusable items to replace the ones you've found in the bin.*

### OPTION 2: CLASSROOM CLEANUP

*With an understanding of marine debris, students will likely be excited to reduce their waste. The first step to reducing your waste is to understand what you throw away. As a class (or in small groups) allow students to go through the classroom trash bins to see what they most throw away. As an instructor, it's best to check the bin before to minimize mess. Have students fill out the cleanup worksheet on the next page as a group and conclude with a class discussion on what they found, how they can reduce that item, and how those items, if found in the ocean, can impact marine life.*

**Materials:**

1. Hand sanitizer
2. Cleanup worksheet
3. Writing utensil
4. Gloves (optional)

**Directions:**

*Using the bin in front of you and your group. Record what you find, and consider how these items could impact marine animals if they ended up in the ocean. Brainstorm actions you can take to minimize waste. Consider opting for reusable items to replace the ones you've found in the bin.*





### OPTION 3: CLASSROOM WASTE AUDIT

*If instead of cleaning up, you want to learn more about what you are throwing away, perform a waste audit. In this activity students will sort their waste into piles of trash and recycling and see which they have more of to better understand what they use on a regular basis. This activity allows students to understand what is being thrown away the most and try to come up with alternative solutions that wouldn't need to be trashed. After performing the audit they can fill out the audit worksheet below.*

**Materials:**

1. Hand Sanitizer
2. Audit worksheet
3. Trash and recycle containers
4. Writing utensil
5. Gloves (optional)

**Directions:** *Collect the trash and recycle containers from your classroom. Put on your gloves and sort your waste into trash and recycling piles. Then use the audit worksheet below to tally up how much of each type of item you have. Then find the percentage of each type of item within the trash or recyclable category. In the bottom section of the table find the total percentage of trash versus recyclables. Brainstorm how you can minimize your waste.*

### DISCUSSION QUESTIONS AFTER CLEANUP

1. What are some ways that trash can wind up in the ocean, considering where we are right now?
2. How can we reduce our use of this item? Can we replace it with something else?
3. What materials are more hazardous for the ocean? (plastic vs. paper vs. aluminum)
4. If this item entered the ocean, what are some ways it could impact marine animals? (compare items and animals, ex: sea turtles, dolphins, fish.)



## CLEANUP WORKSHEET

Group Name: \_\_\_\_\_ Student Names: \_\_\_\_\_

*Some scientists devote their careers to better understanding trash to help protect our environment, and you are going to get a chance to do something similar today. As you go through the trash and items collected, answer the following questions as a group to the best of your ability to better understand and classify your debris. Some of these questions do not have right or wrong answers, and are instead meant to make you think about the impacts of litter on the ocean. Be prepared to discuss the questions as a class.*

**Notes Section:** *Use this section to write notes about the litter you've found. Describe the items you've found, and the material it's made of if you are able to determine (plastic, paper, plastic foam, metal, etc.)*

**3. What was the most common trash item found?**

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**4. What was the most common material (plastic, paper, aluminum) found?**

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**5. Which items do you think would be the most hazardous to marine animals, like sea turtles? Why?**

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**6. Which material (plastic, paper, metal) do you think would be the most dangerous to marine animals, and why?**

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**7. Pick three items that you found. Brainstorm 2 ways (per item) to reduce the amount of these items going into the trash.**

**Item 1:** \_\_\_\_\_ **Item 2:** \_\_\_\_\_ **Item 3:** \_\_\_\_\_

**Solutions:**

**Solutions:**

**Solutions:**



## AUDIT WORKSHEET

Group Name: \_\_\_\_\_ Student Names: \_\_\_\_\_

### TRASH

Item	Tally	Total (Number)	Total (Percentage)
Plastic Food Containers			
Plastic Food Wrappers			
Plastic Straws			
Styrofoam			
Food			
Other			
Total Trash (Number of items):		Total Trash (Percentage of all waste):	

### RECYCLABLES

Item	Tally	Total (Number)	Total (Percentage)
Glass Bottles/Jars			
Plastic Bottles			
Metal/Aluminum Cans			
Cardboard			
Paper			
Other			
Total Recyclable (Number of items):		Total Recyclable (Percentage of all waste):	

- Pick three items you found. Brainstorm 2 ways (per item) to reduce the amount of these items going into the trash.

Item 1: \_\_\_\_\_ Item 2: \_\_\_\_\_ Item 3: \_\_\_\_\_

Solutions:

Solutions:

Solutions:

Name:


Date:

## Solving Marine Debris: Writing Exercise

Now that marine debris is gaining more attention, people are inspired to address this problem with solutions. The National Oceanic and Atmospheric Administration (NOAA) is a federal agency that is also trying to solve our marine debris problem. HMAW was a NOAA Marine Debris Program partner from 2020-2021 and is a partner through University of Hawaii Sea Grant for 2021-2022. NOAA's Marine Debris Clearinghouse has a map of the projects they have helped support with funding. It can be found at:

<https://clearinghouse.marinedebris.noaa.gov/web/marine-debris-clearinghouse/projects>

**Directions:** Using a computer, explore the Marine Debris Clearinghouse projects near where you live, or abroad. Click on the project to learn details and **explore the project page** to discover exactly what they are doing to address the issue. Review at least 3 projects. Using the space below, write a 3-4 paragraph summary on the project you liked best. For credit, your summary must include the name of the project, location, debris type they are focusing on, and a summary of activities.


Marine Debris Clearinghouse
HOME PRO

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**Filter (Optional):**

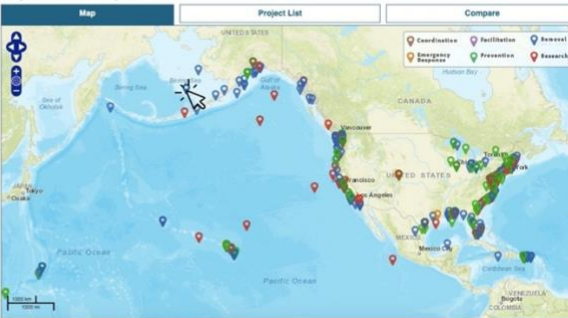
Basic Search | Advanced Search

Quick Tip: In the Basic Search, enter a search term or terms and any operators and press enter. Learn More

Start Typing...

Projects: All 455 Projects

Map
Project List
Compare



**Homepage - click on any of the GPS pinpoints to choose a project**

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**Filter (Optional):**


Basic Search | Advanced Search

Quick Tip: In the Basic Search, enter a search term or terms and any operators and press enter. Learn More

Start Typing...

Projects: All 455 Projects


Map
Project List
Com



**Find a title that sounds interesting. Click on the title on the pop-up screen, this will bring you to the project page!**


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**Native Community Marine Debris Removal from Bering Sea Shorelines Alaska**



**PROJECT ABSTRACT**

Building on previous work in the Bering Sea region, the Sitka Sound Science Center worked with local communities to facilitate cleanup of marine debris from shoreline habitat in and around their communities. The three communities are Savoonga, on St. Lawrence Island 150 miles south of the Bering Strait, St. Paul Island in the Pribilof, and Port Heiden on the Bristol Bay side of the Alaska Peninsula. Each of these communities has experience with marine debris cleanup. Crews come entirely from the communities, and utilize local expertise.



**PROJECT DETAILS**

Funding Year: 2016  
State/Territory Coverage: Alaska  
Start Date: 08/01/2016  
Stop Date: 04/30/2018







Name:

Date:

## Solving Marine Debris: Writing Exercise

Now that marine debris is gaining more attention, people are inspired to address this problem with solutions. The National Oceanic and Atmospheric Administration (NOAA) is a federal agency that is also trying to solve our marine debris problem. HMAR is a current partner for 2020-2021. NOAA's Marine Debris Clearinghouse has a map of the projects they have helped support with funding.

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Full credit will be provided to the student if they correctly include:

- Name of the project
- Location of the project (City + State)
- Debris focus of the project
- Summary of the activities
- Writing samples should include correct grammar, complete sentences, and proper use of paragraphs. The amount of information should include enough so the reader understands the scope and purpose of the marine debris project.



## ASSESSMENT

*Directions: Please provide this to your students before and after the lesson and then send the results back to HMAR. We will use this data to find out how much knowledge each student has gained from this lesson. We appreciate your help and support of our work!*

1. What is marine debris?
2. What is derelict fishing gear?
3. What are the two primary impacts of marine debris for marine animals?
4. Why do we have fishing regulations in Hawaii?
5. Why are drift debris so impactful to biodiversity?
6. What are the 5 R's? Which help us to be sustainable consumers?
7. Can microplastics make it through a natural filtration system?
8. What is one thing you can do each day to create less waste?
9. How does the ingestion of plastic impact marine animals?
10. What is the Great Pacific Garbage Patch?