



## Educator Guide

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### Exhibition Overview

*Gyre: The Plastic Ocean* tells a global ocean debris story through the work of more than 20 artists from around the world. The exhibition includes a section specific to Alaska featuring a 2013 expedition's resulting scientific discoveries, as well as art created from the ocean trash gathered on Alaska's beaches during the journey.

### What is a gyre?

A gyre is a swirling vortex. The surface circulation of our oceans is dominated by gyres that may be hundreds to thousands of miles in diameter. It is these gyres that re-distribute and aggregate debris in our oceans. Alaska's shores are the northern fringe of the North Pacific Gyre.

### Gyre Expedition and Exhibition

A team of scientists and artists explored the coast of Alaska and collected plastics most likely deposited from the North Pacific Gyre.

A unique art and science exhibition, *Gyre: The Plastic Ocean*, on view Feb. 7 through Sept. 6, 2014, at the Anchorage Museum, brings the problem of plastics and ocean trash into perspective.

The expedition and exhibition explore the complex relationship between humans and the ocean in a contemporary culture of consumption. Before you visit the museum, visit the museum's microsite to familiarize yourself and students to these issues.  
[anchagemuseum.org/gyre](http://anchagemuseum.org/gyre)

### Plastics and Ocean Trash

*"Plastic is one of the main types of ocean trash. Plastics are used in many aspects of daily life and are a big part of our waste stream. Plastics can last a long time."*

-What We Know About: Plastic Marine Debris, NOAA

Plastics can end up in the ocean in many ways. They may fall or be dumped off a ship, travel down rivers or through storm drains, blow out of trashcans, or be left on the beach. Once plastics are in the ocean, they can drift for thousands of miles.

## Words to know

biodegradation, buoyant, degradable, disposal, entanglement, ghost fishing, marine debris, plastic resin, pellets, and recycling

## Standards

All student programs align to Content Standards for Alaska Students, Cultural Standards for Educators, and Alaska Standards for Culturally Responsive Schools.

## Pre-activity

These *Gyre: The Plastic Ocean* educational materials are designed to work in your classroom, or in conjunction with an Anchorage Museum field trip through May 16, 2014. You may facilitate a structured experience using the pre-developed Tools for Teachers lesson plans, or modify them to meet existing classroom curriculum topics or standards.

## At the museum

Explore ocean literacy through an interdisciplinary approach. Learn about this unique marine-debris focused expedition and exhibition with your students. Come prepared with the pre-developed downloadable student worksheets or register for one of our Gyre Guided Investigations led by a museum educator. After your *Gyre: The Plastic Ocean* exploration, visit the Imaginarium Discovery Center for more hands-on learning. You and your students will leave with a greater understanding of our complex ocean.

## Back in the classroom

Go online to the Anchorage Museum's virtual teacher toolbox for *Gyre: The Plastic Ocean*, which features all the resources you need to introduce your students to a more in-depth and complex view of our ocean systems. Here you will find biographies of the scientists, expedition team, artists, videos, interactives, pre-developed thematic lesson plans for classroom and more.



## The Plastic Ocean

### Student Programs

#### REGISTER

Complete the online field trip registration request form to begin the registration process for a field trip at the Anchorage Museum.

[anchagemuseum.org/educators](http://anchagemuseum.org/educators)

Please plan early as field trips fill up quickly. It's recommended that educators schedule at least three weeks before a desired field trip. The museum requires at least two weeks advance notice. Pre-registration is required to receive the reduced educational admission rates. Groups that don't pre-register must pay general admission rates and will not have access to school programs. Some funding opportunities available to select schools.

#### GUIDED INVESTIGATIONS

Available at 10:30 a.m. or noon Tuesdays, Wednesdays, and Thursdays, Feb. 11 through May 16, 2014. 45 minutes.

#### SEA CREATURES (Pre-K-8)

Students create a sea creature sculpture and learn about marine debris. *Gyre* and South Classroom. Arts Standards: A, D. Science Standards: C, D. Geography Standards: A, E.

#### PONDERING PLASTIC (3-12)

Students learn how scientists and artists tackle topics like marine debris in their work. An educator facilitates a lively group discussion about finding environmental solutions and the importance of civic engagement. *Gyre* and South Classroom. Arts Standards: B, C, D. Science Standards: C, D. Geography Standards: A, E.

#### LIFE ON THE EDGE (K-12)

*Available year-round.* Students learn about Alaska sea creatures in the museum's marine life tanks, and discover how invertebrates are well-suited for marine environments. Imaginarium Discovery Center and North Classroom. Science Standards: A, C.

#### NATIONAL GEOGRAPHIC GIANT TRAVELING PACIFIC MAP

Available April 7 through May 16, 2014

This giant map the size of a racquetball court introduces the marvels of the Pacific Ocean. Students learn how the Pacific has been a barrier and a highway throughout human history. Students experience the Pacific as a living thing. Reserve at (907) 929-9280.

## Resources

### **Alaska Sea Life Center**

[www.alaskasealife.org](http://www.alaskasealife.org)

Visit Alaska... Virtually! Using live interactive video conferencing equipment your students can expand their scientific experience via live, multi-media presentations.

### **Blue Ocean Institute**

[blueocean.org/issues/](http://blueocean.org/issues/)

Learn more about our oceans and issues we are facing.

### **COSEE of Alaska**

[www.coseealaska.net](http://www.coseealaska.net)

A center in the national network of Centers for Ocean Sciences Education Excellence COSEE, aimed at helping ocean scientists reach broad audiences with their research.

### **NOAA Marine Debris Program**

[marinedebris.noaa.gov/marinedebris101](http://marinedebris.noaa.gov/marinedebris101)

Learn the basis of marine debris 101 and the impact on our oceans and fresh water systems.

### **United States Environmental Protection Act (EPA)**

[water.epa.gov/type/oceb/marinedebris/moreinfo.cfm](http://water.epa.gov/type/oceb/marinedebris/moreinfo.cfm)

Information on and sources of marine debris

## Sponsors

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