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YOUR museum again soon!**

**Kids are always free!  
Use your Parent Pass to bring two adults  
to the museum for FREE.**

Be sure and see the Honolulu Theater for Youth play *H2O* in late Spring 2016.

## Honolulu Museum of Art

**Spalding House**

2411 Makiki Heights  
Honolulu, Hawai'i 96822



# Honolulu Museum of Art

Spalding House

## *Plastic Fantastic?*



**Student Booklet**

## Welcome to the Honolulu Museum of Art Spalding House

### Plastic Fantastic?

We produce more than 300 million tons of plastic a year and 33.6 million tons of it are discarded in the United States alone. Made from chemical compounds called polymers, plastic has shaped and defined humanity, for good and bad.

The evolution of plastics in our culture has an interesting history. This lightweight, inexpensive, and durable material was first invented well over 100 years ago. The use of plastic exploded during World War II and today, it literally covers the globe.

The amazing durability of plastic also means that it doesn't just go away. When you throw plastic away, it can persist in landfills and in our oceans for centuries. Plastic can be used to create durable and long-lasting parts for spaceships or single-use disposable items like water bottles and grocery bags. Plastic can also be utilized to create works of art and inspire conversation about appropriate uses for this abundant material.

*Plastic Fantastic?* exhibition looks at the scientific advancements and uses we owe to plastic as well as its effect on global culture and the environment through the works of five contemporary artists.

We hope you enjoy your tour and that this booklet will help you to continue learning about plastic and the environment in the classroom and at home.

Come back to Spalding House with your friends and bring two adults for FREE with the Parent Pass you receive after the tour.

### What is plastic?

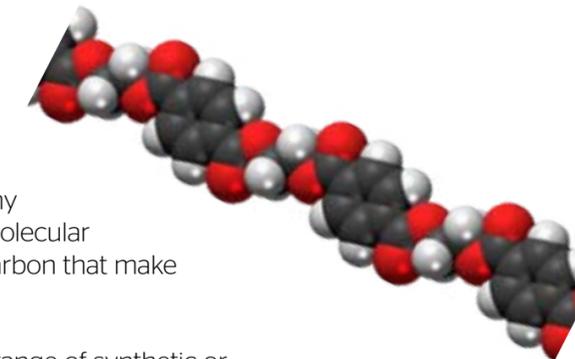
The term plastic comes from the Greek "*plastikos*", which means "fit for molding." Plastics are polymers (or many parts in Greek) made from repeating molecular units of monomers of hydrogen and carbon that make plastic polymers.

Plastic is the common term for a wide range of synthetic or semi-synthetic materials used in a huge, and growing, range of applications. Plastic is a material that at some stage in its manufacturing process it can be extruded, molded, cast, spun, or applied as a coating.

Everywhere you look you will find plastic.

*What items do we use that are made from plastic?* Think of places in your home.  
*What is plastic in each room?* List some items below.

Well maybe that was too easy!  
*Can you think of things in your home that are NOT plastic?* List these items below.



### Plastic is Fantastic!

Our modern world would be impossible without plastic.

Consider some of the areas in our lives where plastic is very important: the medical field, space travel, sports, and the arts, just to name a few!

Discuss with your class how plastics have improved our lives.

List some examples below.

## Exploring plastic

Look for the plastic identification symbols to determine what kind of plastic you are using. Document your findings in this chart.

Symbol	Code name	Polymer name	Objects
			
			
			
			
			
			
			

Some plastics are healthier and more environmentally friendly than others. Some are easier to recycle than others.

Observable qualities	Disadvantages	Recycled uses

## Plastic and the arts

How did these artists use the new development of plastic in their art?  
 How would the art look if plastic were not available?  
 Would the art look different or the same?



Velizar Vasa (Minich), *Untitled*, 1975



7 Joe Zucker, American, born 1941, *Porthole #4*, 1981

## Why plastic?

Many artists use plastic because of its unique characteristics to improve their work, function or design.  
 Look at these works of art. Think about if and why the artist used plastic. Connect the quality of plastic to the photograph of the work where this quality was important.

Fiber durability



Elasticity, malleability



Surface durability



Mass production



Left to right: Charles Eames *LCW Chair*, designed 1945-46; Takashi Murakami, Japanese, born 1962 *Cosmos Ball*, 2000; John Mydock and Gregg Smith Collaboration, *Urn*, 2010; Artist Unkown, *Bilum Bag*, 20th century.

## How long does plastic last?



Every year, approximately 500 billion plastic bags are used worldwide. More than one million plastic bags are used every minute.

Dianna Cohen uses colorful recycled plastic bags to create her works of art rather than buying expensive oil paints or other materials traditionally used by artists.

*Do you think her plastic bag art will last as long or longer than an oil painting? Why?*

Dianna Cohen (American, born 1965), *Wave lens*, 2007

Try making a work of art with recycled plastic bags. You will need the following materials:

- Colorful plastic bags
- Glue stick
- Scissors
- White paper

Cut the plastic bags into a variety of shapes and sizes.

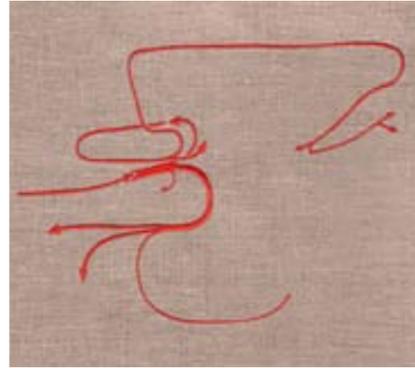
Arrange the pieces of bags onto the white paper. Think about the colors, shapes and design.

*Will your design be an abstract or realistic image?*

Once the pieces are arranged to your liking, glue them down.

*What will you entitle your work?*

## Where does plastic go after we toss it out?



Every year, eight million metric tons of plastic are dumped into the world's oceans. It takes 500-1,000 years for plastic to degrade. Plastic constitutes approximately 90 percent of all trash floating on the ocean's surface, with 46,000 pieces of plastic per square mile.

Plastic gets trapped in the enormous **gyres**, or whirlpools of water created by ocean currents.

Swaantje Guntzel (German, born 1972), *Friendly Floatees*, 2015

Swaantje Guntzel's artwork tracks the journey of a container-load of plastic toys that spilled en route from Hong Kong to Seattle in 1992. The toys have traveled over 17,000 miles and landed on island shores across the Pacific, and in Ireland and England.

Below is a map of the world. Find Hong Kong and Seattle. Mark them on the map. Plot Guntzel's embroidered lines onto the map. Research the locations of the five gyres found in the earth's oceans. Draw the five gyres on the map.

*How do the gyres relate to Guntzel's work?*



## The impact on wildlife

One million sea birds and one hundred thousand marine mammals are killed annually from plastic in our oceans.

The photographer Chris Jordan travels to many of the distant islands in Hawai'i to take photos of birds who have died on the beaches. Their stomachs are loaded with the plastic they ingested by mistake causing them to die from malnourishment.

*What can we do to help the birds?  
How can we prevent this problem?*

There are things we all can do to help the animals. Discuss how we should prevent this. In the space below, draft a letter to someone who needs to understand this problem and tell him or her how he or she can help. Copy your letter and send it off!

Dear \_\_\_\_\_,

Thank you for helping the animals!



Chris Jordan (American, born 1963), *CF000313*, 2009

## There is beauty in recycling

Half of the plastic we use, we use just once before throwing it away. Enough plastic is thrown away each year to circle the earth four times. Americans throw away 35 billion plastic water bottles every year. Everyday Americans throw away enough garbage to fill 63,000 garbage trucks, which if lined up end to end for an entire year would stretch half way to the moon.

Look carefully at the work of these two different artists.

Maika'i Tubbs gathers trash and grinds it up in a blender to form beautiful "stones." Aurora Robson arranges pieces of plastic bottles she has collected, cut into interesting shapes and painted.

*How is the work of these artists similar? How is their work different?*

*In the Venn diagram on the opposite page, the top circle represents Robson's artwork and the lower circle represents Tubbs' art.*

*Where the circles intersect, write the similarities of these two artists' work. In the upper circle, write what is unique to Robson's art. In the lower circle, write what is unique to Tubbs' art.*



Aurora Robson (American, born Canada, 1972), *Midas*, 2011



Maika'i Tubbs (American, born 1979), *Stepping Stones*, 2015



## Plastic Fantastic?

*So how do you feel about plastic? Is plastic fantastic or not?* Plastic is here to stay, but we all know that we have to be smart about how we use plastic to keep ourselves and the planet safe. To help you remember what you have learned about plastic, list the benefits and concerns we need to understand about plastic.

### Benefits of plastic

### Plastic concerns

## In gratitude to our sponsors

### Lead Presenting Partner

Johnson Ohana Charitable Foundation, founded by Kim and Jack Johnson to support environmental, art, and music education.



### Presenting Corporate Sponsor

Hawaiian Electric, supporting STEM education, the arts and the environment in Hawai'i.



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