

# OUR CONTAINMENT WORLD- PLASTICS

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**Recommended:** Grade 5

**Time needed:** 50 min. class period

**Overview :** Students will learn first hand of the severity of our plastic problem and also how it effects their own community.

**Vocabulary :**

- \*Diversity
- \* Microplastics
- \* Disposable
- \* Biodegradable
- \* Gyre

**Objectives :**

- \*Students will be able to understand the problem of plastics in our society today.
- \*Students will see for themselves the diversity in trash.
- \*Students will develop a way to solve the problem.

**Project Materials:**

- \* Trash that has been cleaned
- \* Calculator
- \* Paper, map of the two floating islands of plastic and trash in our Pacific Ocean.
- \* Recyclables, cardboard, art supplies
- \* Scale

**Resources: ( Multimedia)**

- \* [www.nationalgeographic.com](http://www.nationalgeographic.com) ( video on “The Reality of Plastics” )
- \* [www.ourworldindata.org](http://www.ourworldindata.org)
- \* [www.sloactive.com](http://www.sloactive.com)
- \* Map of the two floating islands of plastic and trash in our Pacific Ocean

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

**Before the Lesson/ Background Information:**

Before the lesson trash will be collected and cleaned by the students and myself.

I would speak to the class before the lesson about how our products of plastics have taken over our lives and how we became a wasteful nation.

**Part 1:** 25 minutes

- \* Students will get to see and examine our trash ; how diverse it is , weigh each bag and add totals. They would calculate times 12 months, then 10 years.
- \* Next they will watch a small video of “The Realities of Plastics” from the National Geographic site.

**Part 2:** 25 minutes

- \* Students will brainstorm ideas on how to design and engineer a device in which takes plastics and converts it into something useful or to do away with it completely. They will work in groups and use recyclable materials which are found in the school lab such as cardboard, recyclable bottles, tape, etc. . . . . when finished they present to the class and explain how it was made, what real life materials would be used to manufacture their device, its function and how it can be put to good use.

**Next Generation Science Standards:**

NGSS-3-5-ETS1-1

NGSS-3-5-ETS1-2

NGSS-3-5-ETS1-3

