



Plastics are

EVERYWHERE

Plastics Scavenger Hunt

Plastics Project 2019 - The Process

Design Process:

Timeline:

- | | | |
|---------------------------------|---|-----------------|
| ● Defining the Problem | → | ● Tues 3/26 |
| ○ Research | → | ● Thurs 3/28 |
| ● Brainstorm Possible Solutions | → | ● Mon. April 1 |
| ● Develop a Single Solution | → | ● April 5 & 9 |
| ● Build a prototype | → | ● April 15 - 19 |
| ● Test and refine prototype | → | ● May 1 - 3 |
| ● Share solutions | → | ● May 7 - 9 |

Today's Schedule - Tues. 3/26

1A

- Overview of Plastics: The problems we face
- Problem Focus Groups
- Research and focusing the problem

2A

- Post it Note Focus Session - Problem Focus Groups
- Narrow problem focus
- Create a formal Problem Statement

The Problem:

What is the most pressing problem in the plastic stream?

Movie Time

THE LIFE CYCLE OF PLASTIC



**RAW
MATERIALS
ACQUISITION**



PROCESSING



DISTRIBUTION

RECYCLING

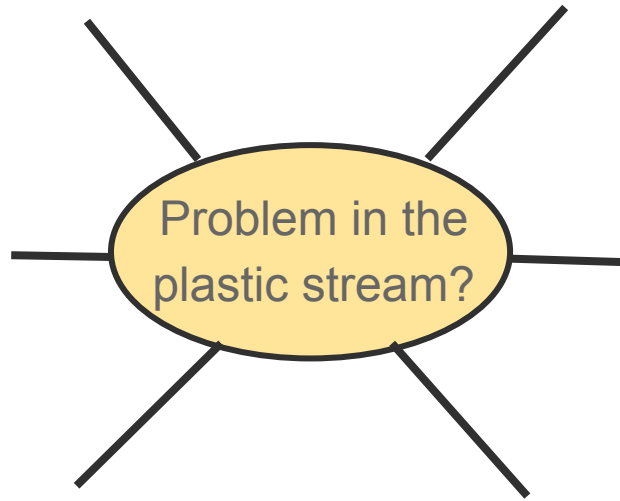


DISPOSAL

**END OF
LIFE**

**PRODUCT
USE**





Choose a topic!

Go to the area of the classroom with the problem you are most interested in solving.

Focus Group Discussion

Within your group, discuss the following for your problem topic.

- 1) Why do you feel this problem is the most important to solve?
- 2) How will this problem impact you personally?
- 3) What do you need to know to understand the problem?
 - MAKE A LIST -

Sticky Note Research

- Research your groups problem topic.
- Create a sticky note for items you find that affect your perception of this problem.
- Use your groups list of “Things you need to know”



Share your notes with your group



Teacher Focus:

Share your Notes

Take turns sharing your notes around the group.

- Add a note to the previous ideas.
- Add a new note that is unrelated.

Keep refining your ideas until you have a narrow, achievable goal.

- We will consult with each group to help in this process.

Organize and Prioritize your Notes

Steps to guide organization and focus

- **Organize by overarching topics**, such as “human health” or “excessive waste”
- **Organize chronologically** (i.e. where in the ‘plastic stream’ does each problem arise?)
- **Organize by scale of impact** (from problems that affect the greatest number of people/organisms/places to the problems that affect the fewest)
- **Organize organically** -- put Post-Its on board, look for a pattern in what you’ve found, and organize in a manner unique to your group)

Create a Problem Statement:

People need a better way to _____ plastic
because _____.

(give reasoning include evidence and explanation)

Homework

Brainstorm possible solutions. Produce 3 possible solutions for each of the topics below.

- Behavior Based Solutions
- Technological Solutions
- Existing Solutions
- Crazy Solutions

- At least three solutions for each topic (no duplication!) Include a draw or explanation for each.