

# Beach clean up



Mrs. Sawyer  
5th Grade

# Ask

## What problem am I trying to solve?

Design a device to clean polluted land.

### **Criteria**

*(How will I know if it is successful?)*

- Pick up 5 water bottle caps
- Pick up 1 Wrapper

### **Constraints**

*(What resources are limited?)*

- Time: created and tested by January 22nd.
- Masteries/money: 50 of device must be made of used materials.

# Ask

1. Something that has an sifting/ raking thing in the back.

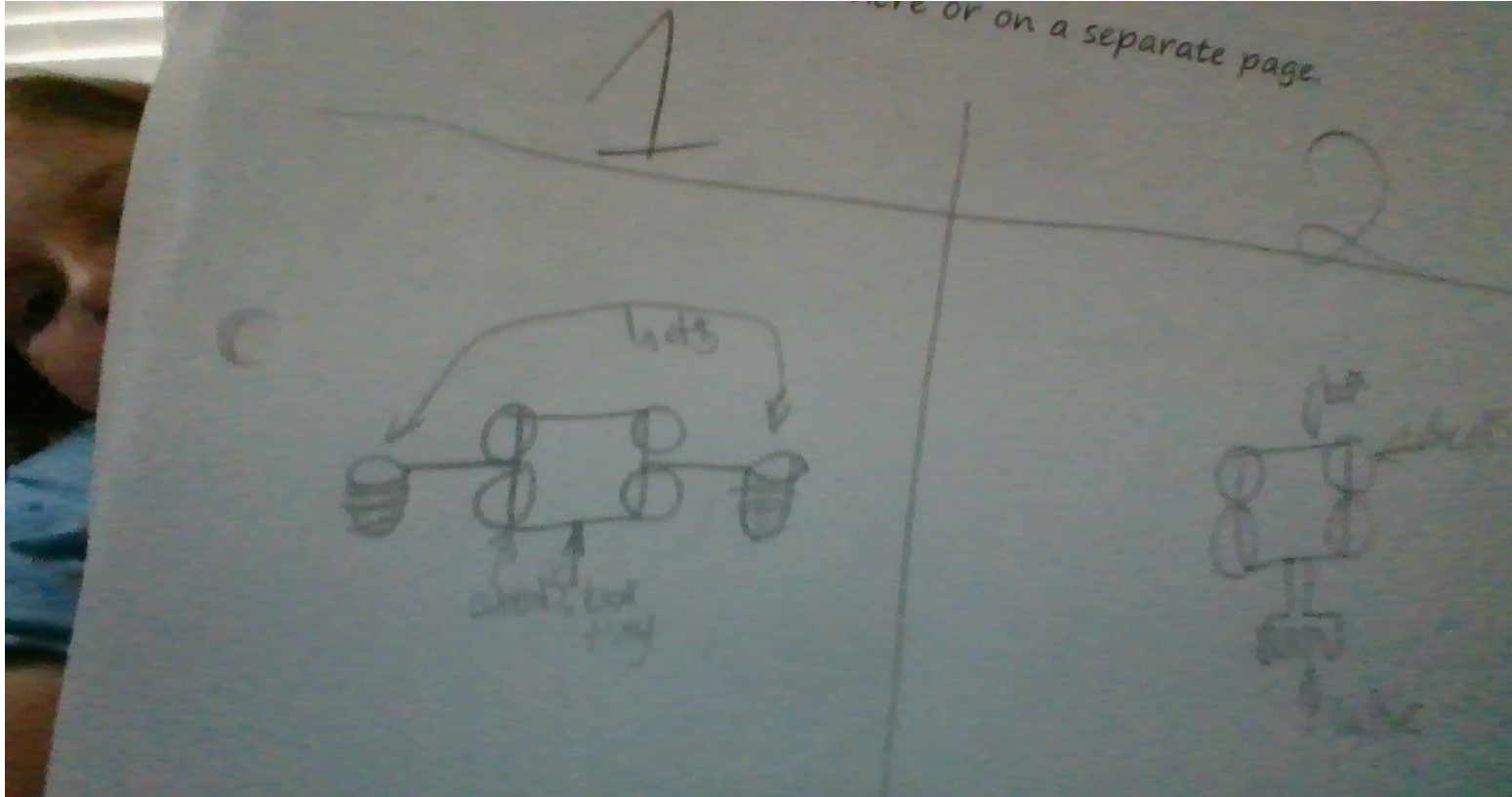
Source: Wikipedia

2. Pictures of different machines.

Source: [beach-cleaning-machines.com](http://beach-cleaning-machines.com)



# Imagine

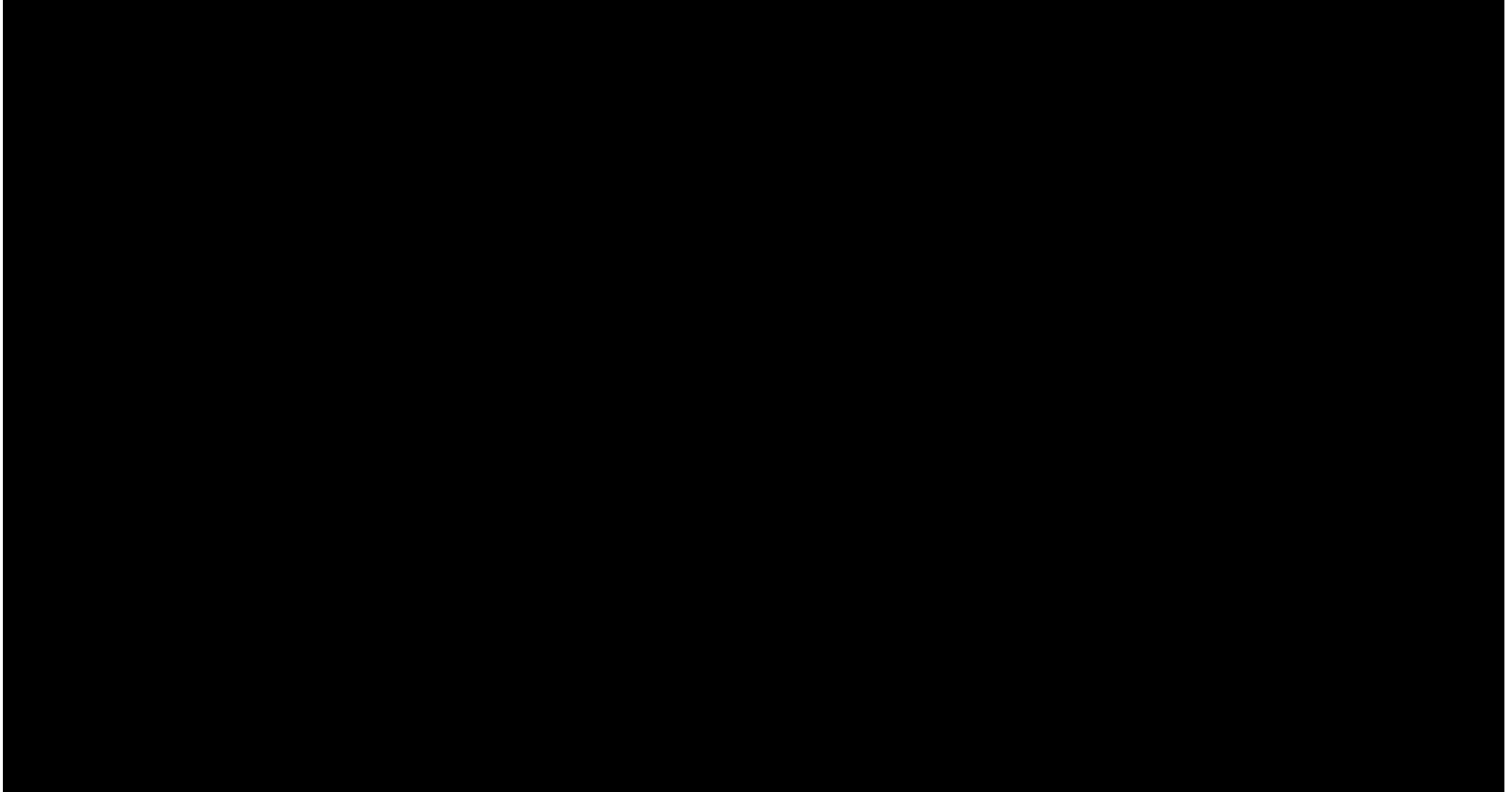


# Plan

1. *Get a Mcdonalds toy car*
2. *Get rake and disk.*
3. *Hot glue together.*



Create



# Test

Variable I am measuring:	Trial 1	Trial 2	Trial 3
Picking up things	24 pieces of pine straw.	23 pieces of pine straws.	42 pieces of pine straw.

# Improve

*Based on your first test, choose 1 variable you want to change.*

*Changing the disk into a net.*

Variable I am measuring:	Trial 1	Trial 2	Trial 3
Picking up things	88 pieces of pine straw	72 pieces of pine straw	132 pieces of pine straw.



# Improve

- *What steps did I take to improve the solution?*

*I put the net on the toy car and hot glued it.*

- *How did I use my test results to make changes?*

*I was thinking i can do better than this and also the disk wasn't picking up that much.*

- *How well did my solution solve the problem, based on the original criteria?*

*It went good and it picked up a lot of things.*

- *What other ideas do I have for improvement, if I were to attempt this design again?*

*I would make it go into the water and it picks up things just like plastic mostly.*

*The End*

The image features the text "The End" written in a white, elegant, cursive script. The text is positioned horizontally across the center. Behind the text is a solid dark blue circle. This blue circle is surrounded by several concentric rings of a vibrant red color, creating a tunnel-like or ripple effect. The entire graphic is set against a dark red, almost black, background that has a subtle gradient and a slight shadow effect, making the central elements stand out prominently.