



Print Materials



The Problem With Plastics

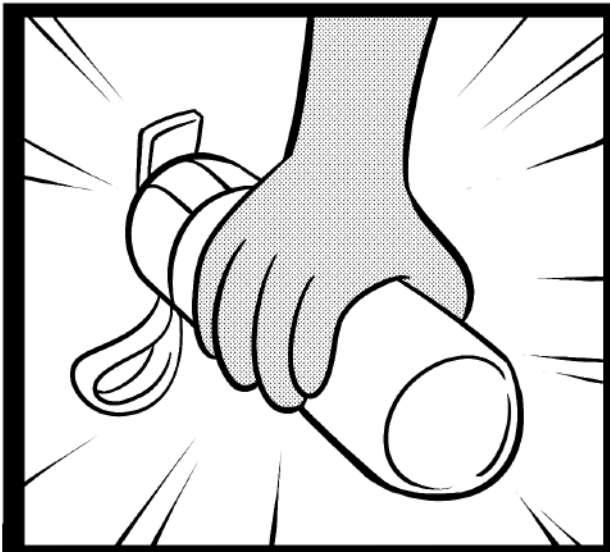
Engineering
Plastic Filters



Written by the YES Elementary Team

Illustrated by Hannah Daigle

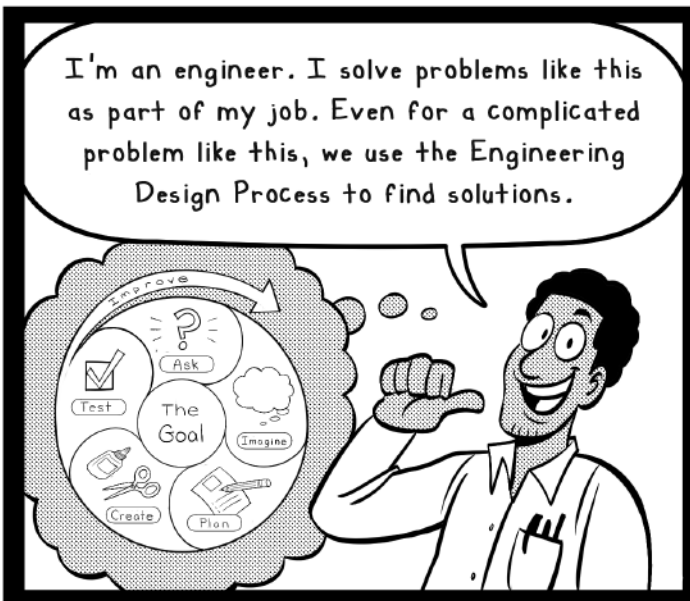
Chapter 1



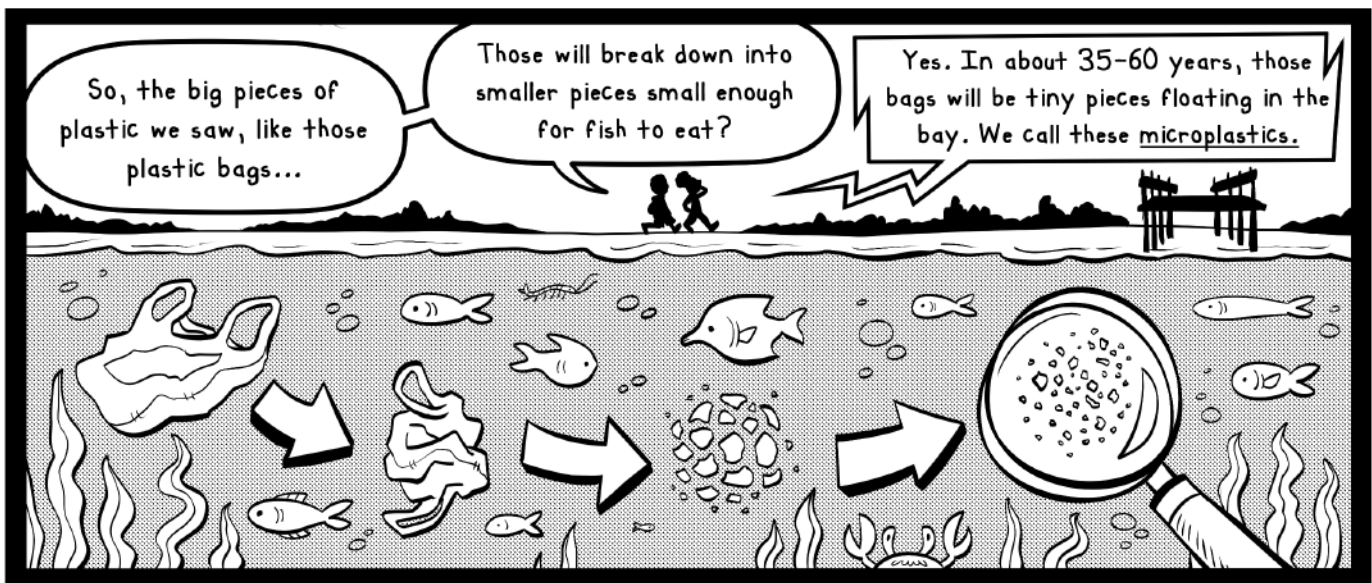
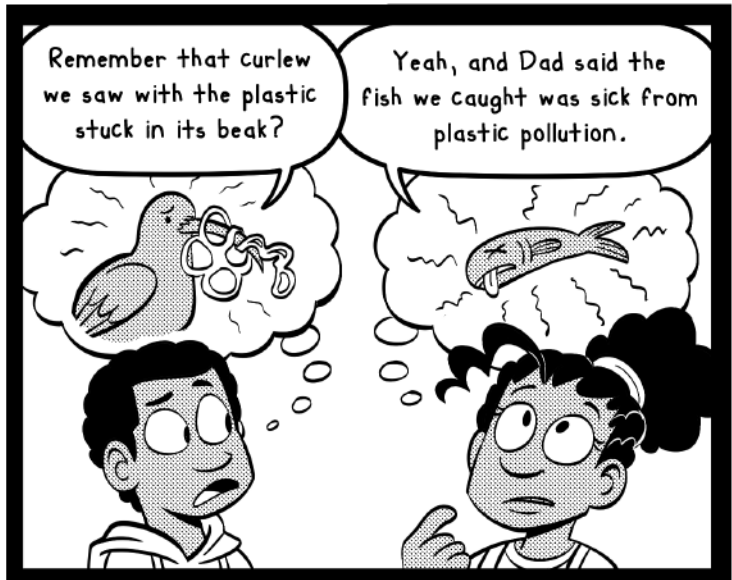
Chapter 1 continued



Chapter 1 continued



Chapter 2



Chapter 2 continued

Other plastics take an even longer time to become microplastic. A water bottle, for example, could take as long as 300 to 500 years.

450 years

300-500 years

20-30 years

CANDY!

The diagram shows three items: a sandwich, a water bottle, and a candy wrapper. The sandwich is labeled '450 years', the water bottle is labeled '300-500 years', and the candy wrapper is labeled '20-30 years'. The candy wrapper has 'CANDY!' written on it.

500 years?! I'm confused. If it takes THAT long for something to become microplastic...

Why is it such a big deal?

The boy is holding a water bottle and looking at it with a confused expression. He has question marks above his head.

Because! If there are already enough microplastics in the bay to make fish sick, imagine how much worse it'll be once all the other plastics break down...

Microplastic will be everywhere!

Everywhere...?

The scene shows a bay with several fish. Some fish have 'X' marks on them, indicating they are sick. There are also pieces of plastic floating in the water, including a water bottle and a sandwich. A boy is looking at the bay with a concerned expression.

You know how our bay connects to the Gulf? Just think—the plastic can spread from our bay to lots of other places in the ocean.

The boy and girl are standing on a pier, looking out at the bay. The boy is pointing towards the water.

We need to learn more about how plastics affect the ocean ecosystem.

And about how far plastics go in the ocean.

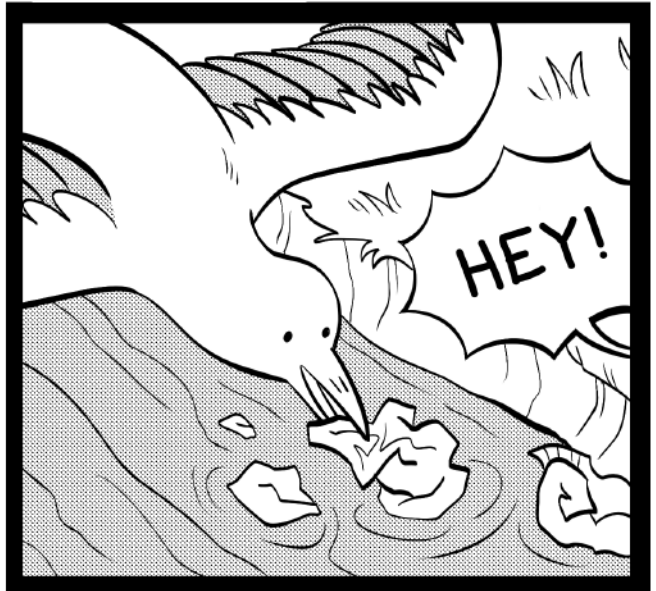
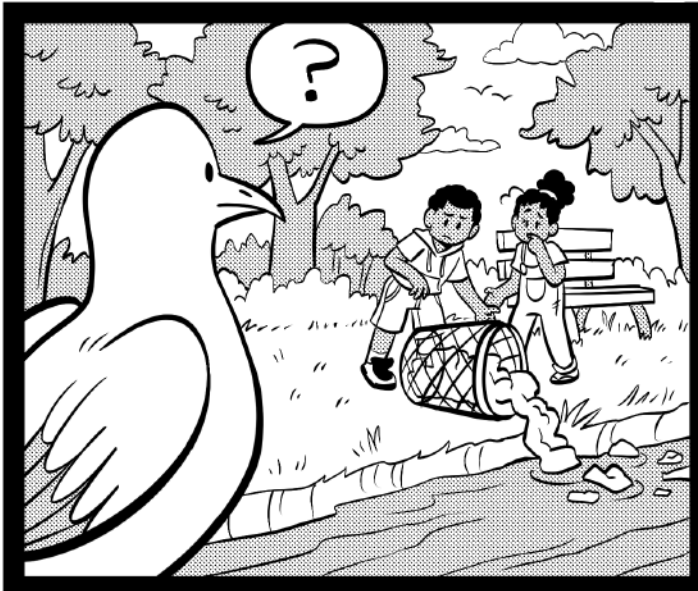
This might be about more than just our bay.

The girl is talking to the boy on the pier. There is a recycling symbol on a table in front of them. A seagull is perched on the railing.

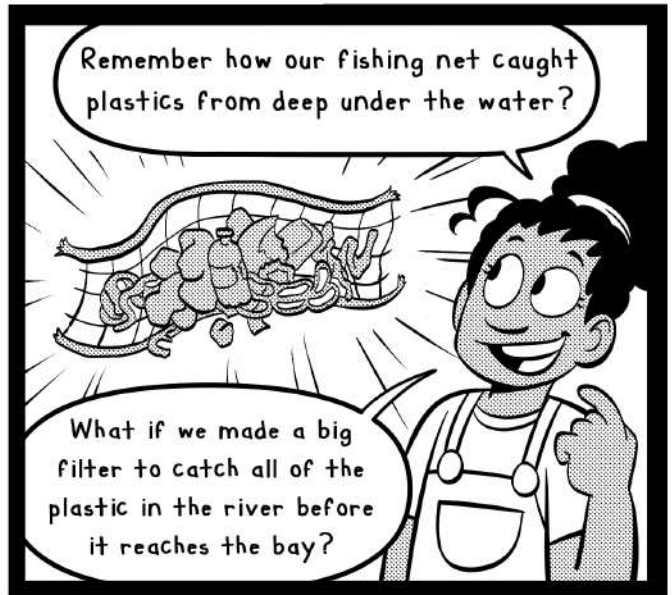
Chapter 3



Chapter 3 continued



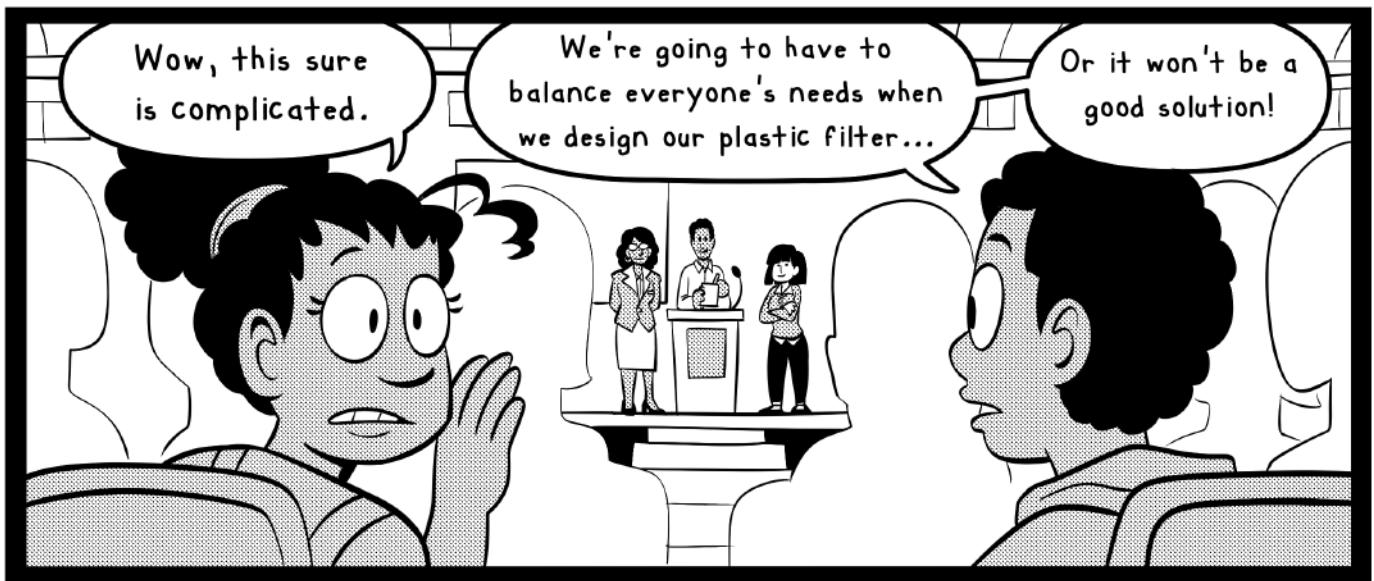
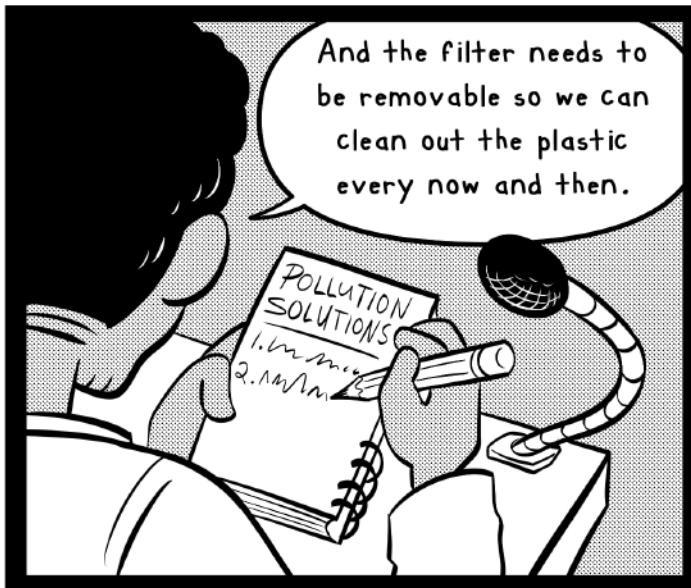
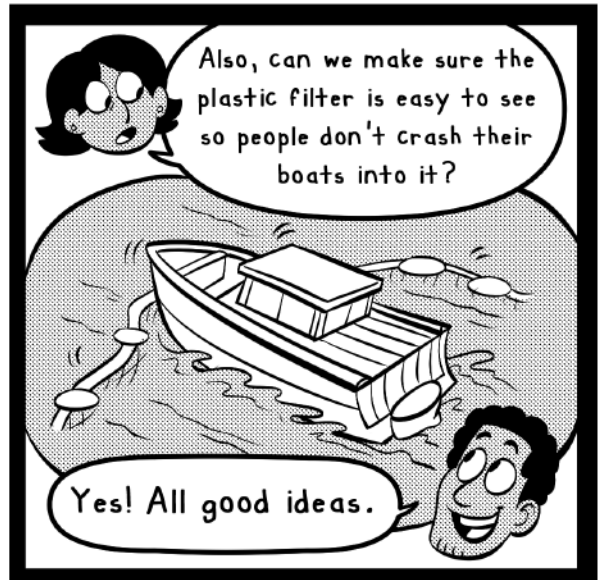
Chapter 4



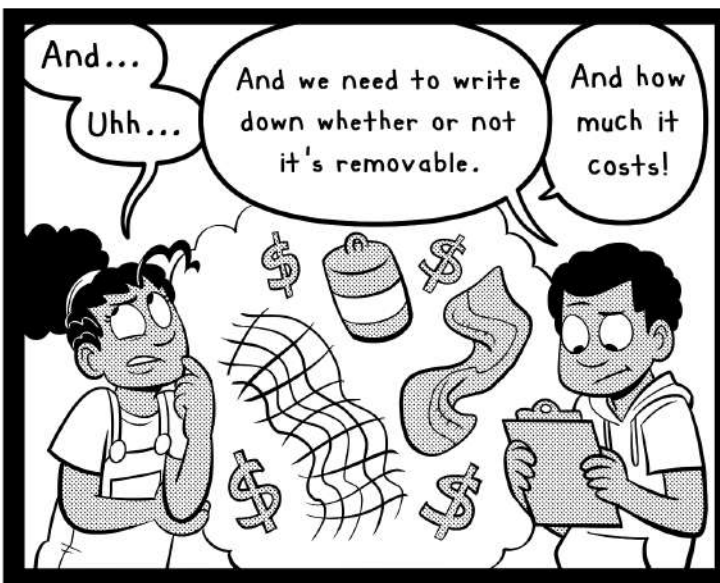
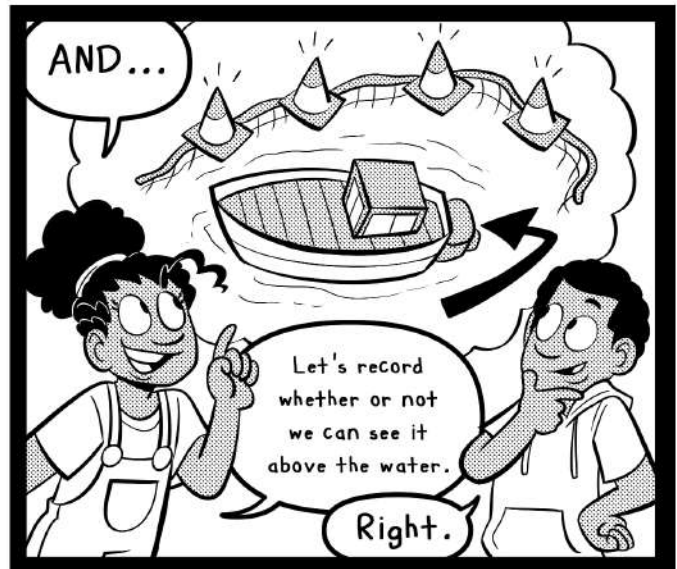
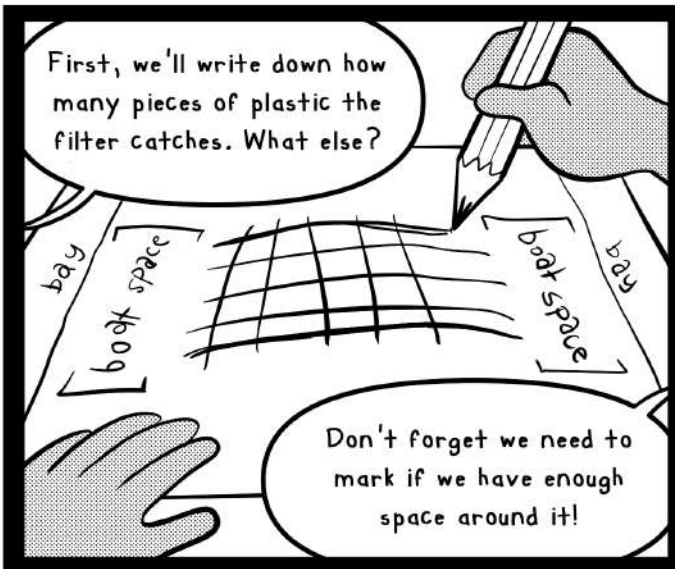
Chapter 4 continued



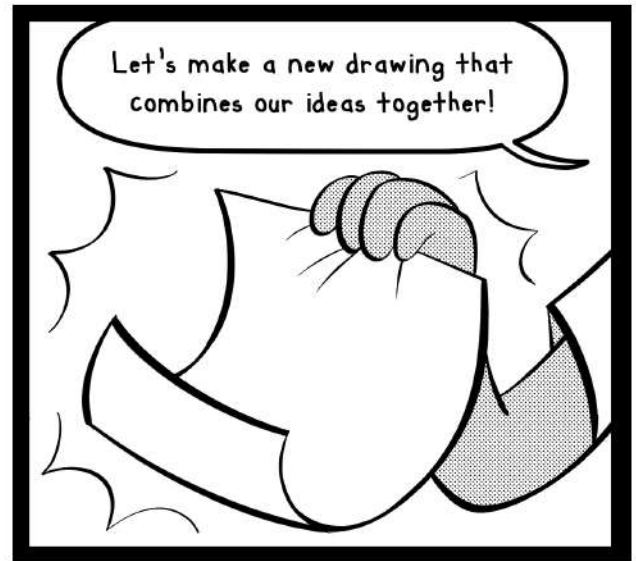
Chapter 4 continued



Chapter 5



Chapter 5 continued



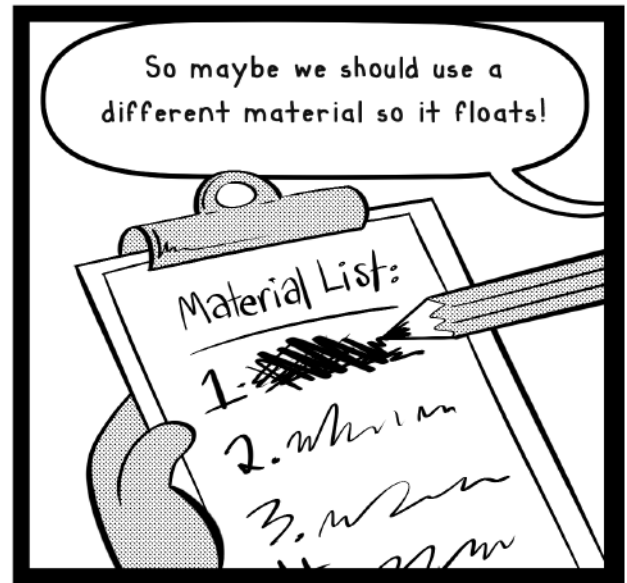
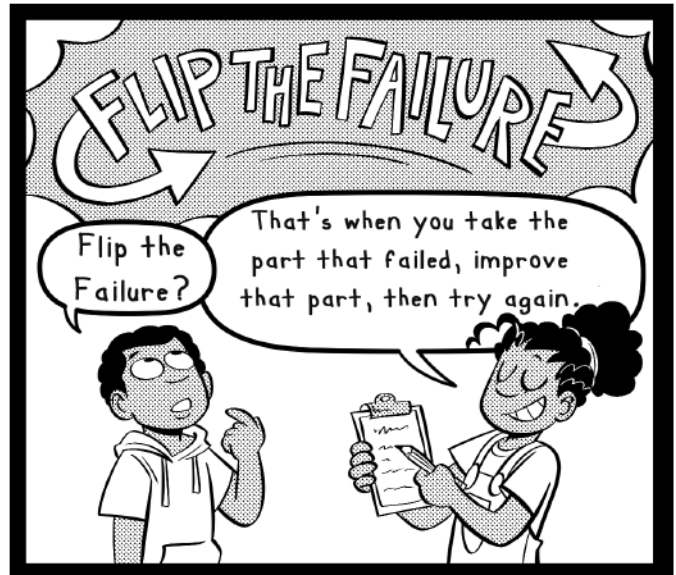
Chapter 6



Chapter 6 continued



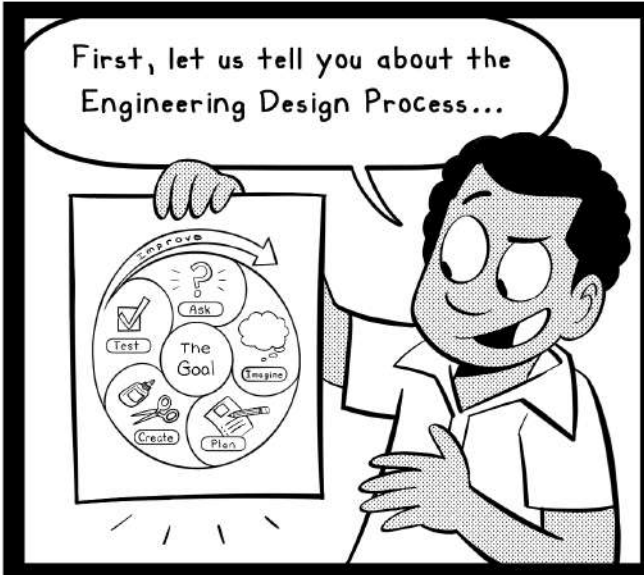
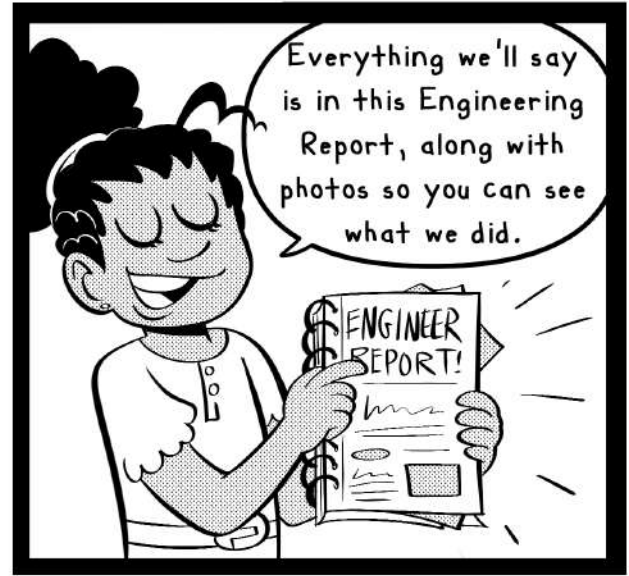
Chapter 7



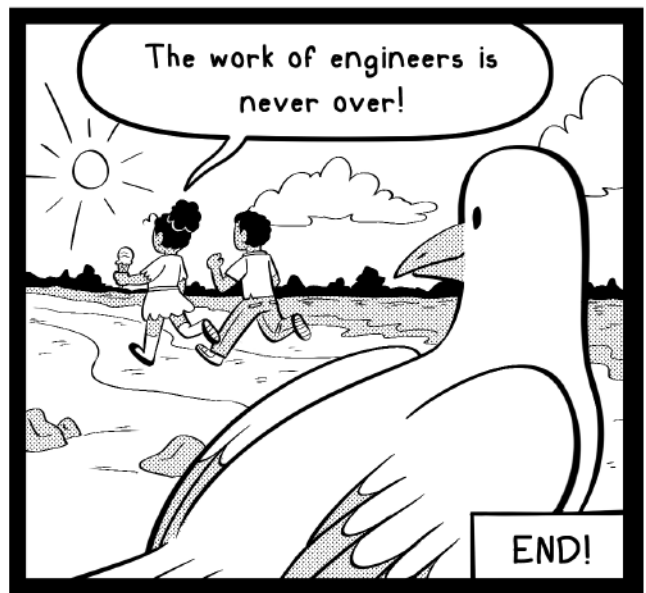
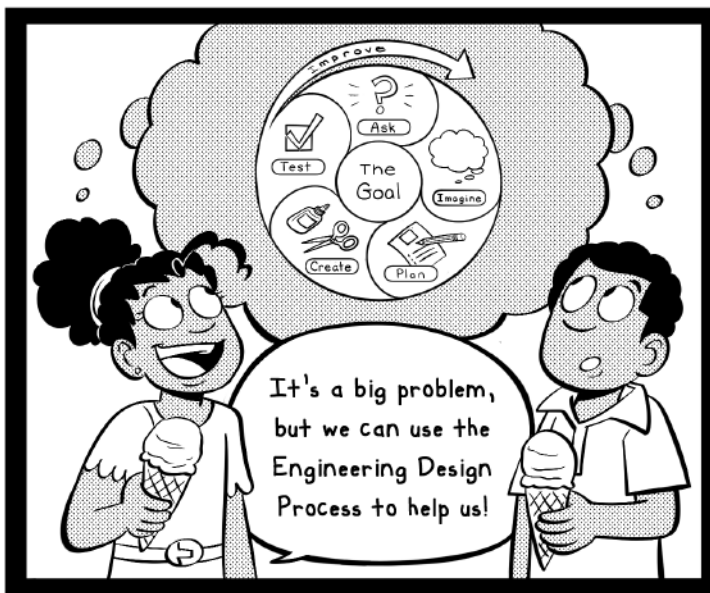
Chapter 7 continued



Chapter 8



Chapter 8 continued



Materials Glossary



binder clip



burlap



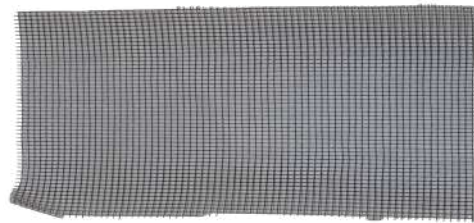
craft foam



craft stick



masking tape



mesh screen



paper clips



pipe cleaners

Materials Glossary



straws



pony beads



string



twist ties



washer

Names:

Test Our Plastic Filter

	# of Plastic Pollutants Caught
Test 1	
Test 2	
Test 3	
Test 4	
Test 5	

Names:

Test Our Plastic Filter

	# of Plastic Pollutants Caught
Test 1	
Test 2	
Test 3	
Test 4	
Test 5	

Names:

Test Our Plastic Filter

	# of Plastic Pollutants Caught
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Test Our Plastic Filter

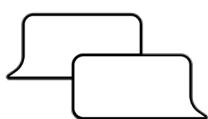
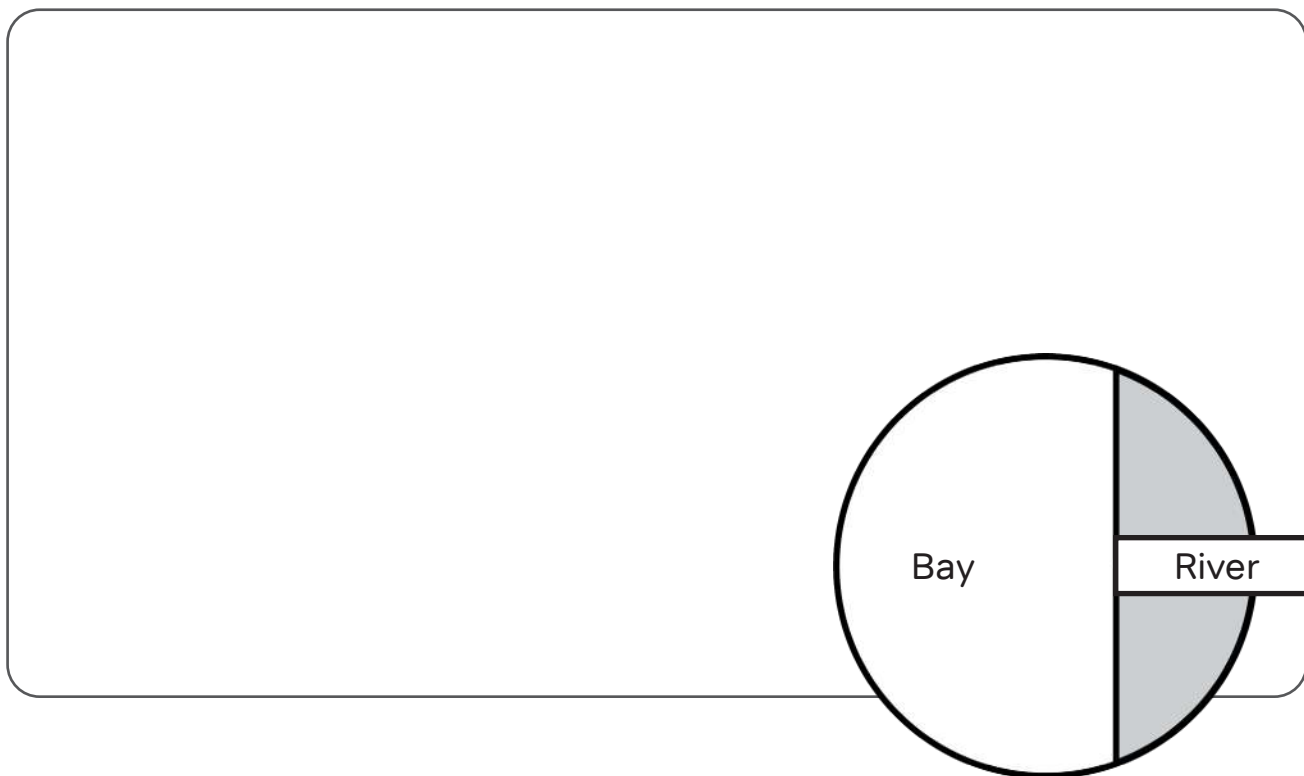
	# of Plastic Pollutants Caught
Test 1	
Test 2	
Test 3	
Test 4	
Test 5	



Plan Our Plastic Filter



Agree on one plan. Draw a labeled diagram of the design.
Mark where you will place it in the model bay.



Which materials will you need?

How many of each?
