The Trouble with Trash

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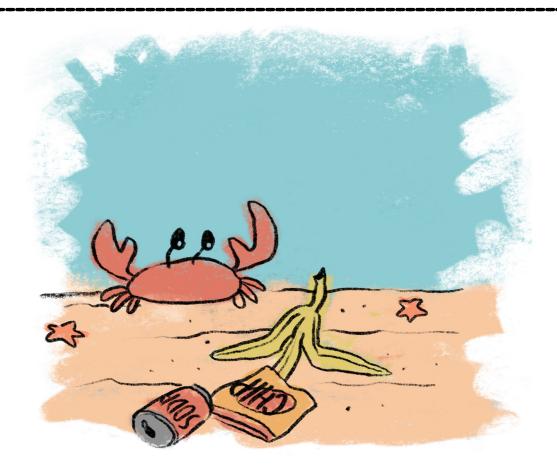
Science Notebook



Day 1: The Trouble with Trash

Question of the day:

What is the problem at Crystal Cove State Park?



Crystal Cove has a problem with

What do you wonder?

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Draw a picture of someone helping Steve with the problem that Crystal Cove is facing. Then, write a sentence describing your drawing.
I think someone like
can help Steve by

Let's learn about you!

Read the questions below. Then, circle the answer that describes you best!

1. I like to learn about the ocean.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

2. My family thinks of me as someone who can help protect the ocean.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

3. I am interested in new ways to protect ocean animals.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

4. I would help clean up green areas in my neighborhood.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

5. I am good at science.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

6. I can do something to help protect ocean animals.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

7. My family thinks of me as someone who is good at science.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

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Day 2: Exploring Crystal Cove

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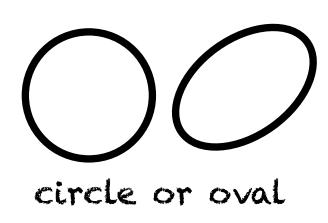


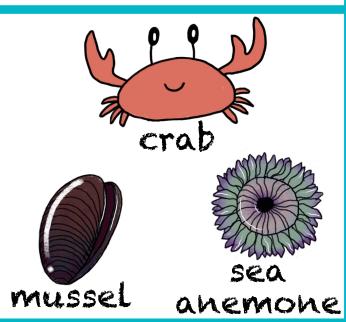
Tidepool Field Guide

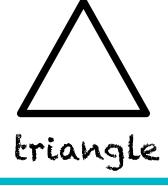
Identify the following tidepool animals by matching them to their shapes!















What is trash?

Look at the objects below and circle whether you think they are trash or natural objects.

1. Driftwood



trash

natural item

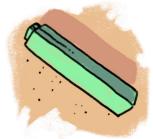
5. Lobster



trash

natural item

2. Plastic cap



trash

natural item

6. Bottle cap



trash

natural item

3. Plastic cap



trash

natural item

7. Cardboard



trash

natural item

4. Kelp



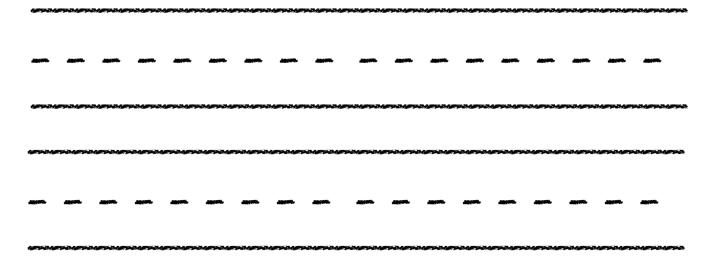
trash

natural item



Where do you think trash on the beach comes from?

I think trash on the beach comes from...

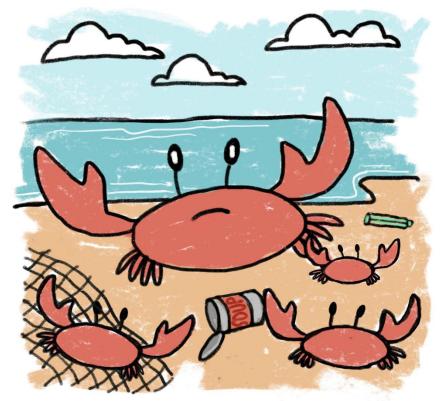




Day 3: Community Interviews

Question of the day:

Why do we care about the problem with trash at Crystal Cove?



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Day 4: Exploring Why We Care

Option 1: How does trash affect ocean animals?

Make a prediction about how trash might affect ocean animals below!

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Make a claim.

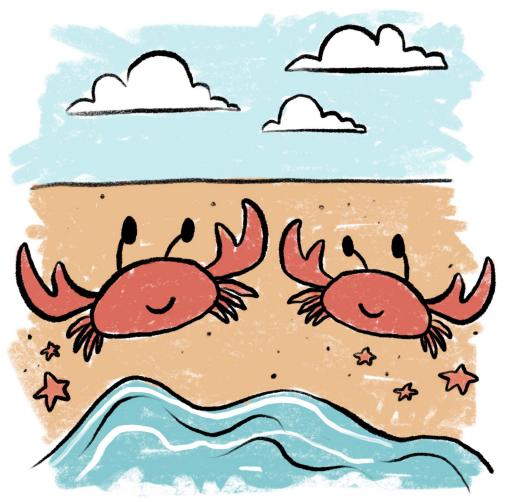
How do you think trash affects ocean animals?
Answer the question below!



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Option 2: Conduct an Interview

Decide who you want to interview. Then, complete the sentences below about the person you have chosen.



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Create & Share

Option 1: Making Artwork

What Colors Mean to Us

Draw a line to match each color to a feeling or thing that you want to include in your artwork.

Red	Trash
Orange	Нарру
Yellow	Sad
Green	Animals
Blue	Caring
Purple	Crystal Cove
Your color:	Your idea:

If needed	, use the spo pain	ice below the string!	to plan you	ır

Create & Share

Option 2: Writing a Haiku

Use the space below to brainstorm some words that describe Crystal Cove!

Some words that describe Crystal Cove are...

How many syllables do you count?

Read the example haiku below. Can you count all of the syllables in each line?

Crash! A wave rolls in.

Red crabs peek from under rocks.

No trash to be seen.

Write your haiku!

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Module 3:

Launch

Question of the day:
How do you think most trash gets to Crystal Cove? Draw a picture to show your prediction!
I predict that most trash gets to Crystal Cove from

What type of trash do you think is the most common on Crystal Cove's beach? Make a prediction below!

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Module 3:

Explore

Where does trash come from?

Where do you predict Erick will find the most trash after a rainstorm?

I predict that we will find the most trash...

Near	trash	cans

	By	the	river
--	----	-----	-------

	Near	strong	waves
--	------	--------	-------

Where does trash come from?

Based on the data, where did Erick find the most trash?

We found the most trash...

Near trash cans

By the river

Near strong waves

Circle whether your prediction was or was not correct.

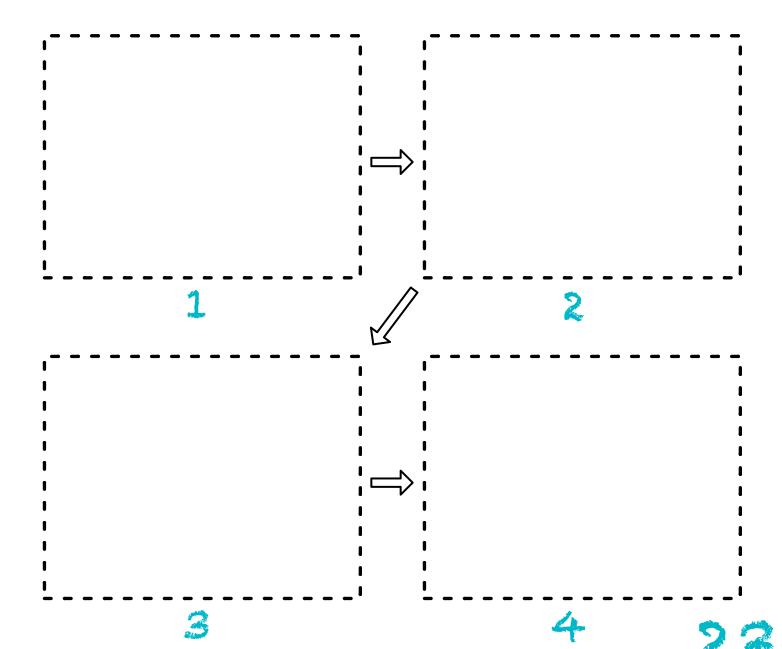
My prediction was / was not correct.

Module 3:

Explore: Your Watershed Story

How does trash get to the ocean?

In the spaces below, glue your watershed cards in order to show how trash moves from your school to the ocean!



Module 3: Building a Watershed

Our Team

Geolo	gist:
Meteor	ologist:
Trash	Dropper:

Directions:

- 1. The geologist sets out the cups and covers them with plastic to make mountains and valleys.
- 2. The trash dropper drops trash on the mountain tops.
- 3. On the next page, draw a picture of your watershed. Make a prediction about where the trash will go.
- 4. When you are ready, the meteorologist uses the spray bottle to make it rain.
- 5. Watch what happens!

	Draw a picture of your watershed model for Step 3.	
	the me	
Whe raiv mo	in we use the spray bottle to mo i, I predict that the trash on th untains will	ake e



Draw a picture showing what happened to your watershed model after Step 5. Where did the trash go) s
The trash on the mountains went	ノ
Circle whether your prediction was or was not correct.	

My prediction was / was not correct.

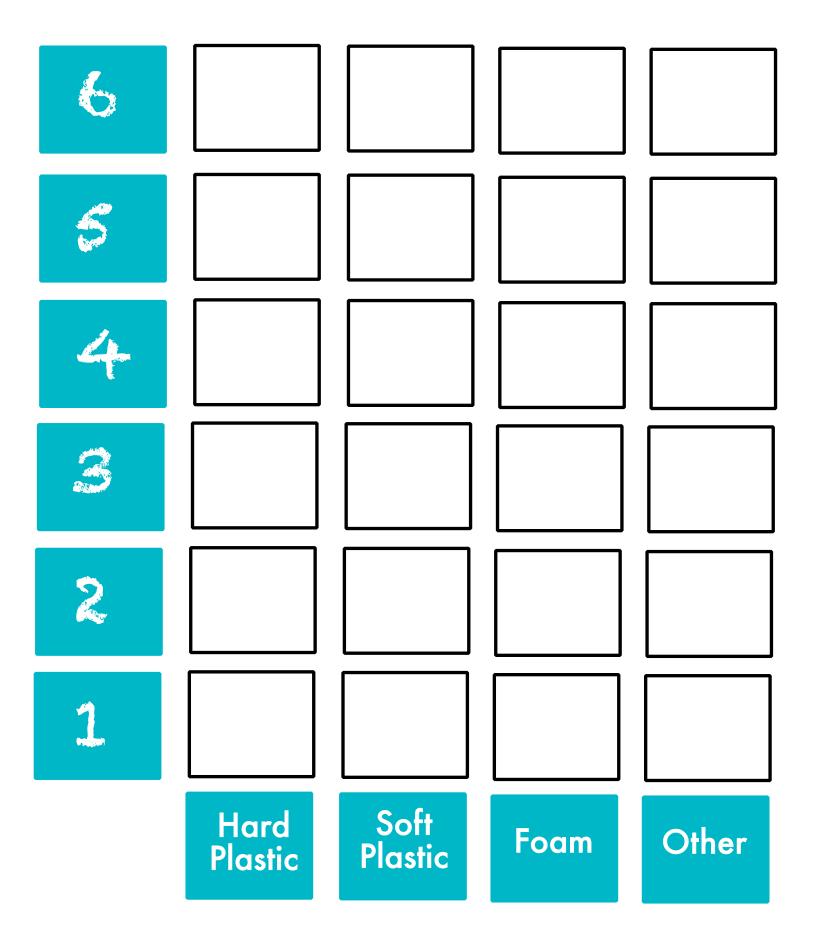
Module 3: Explore: Sorting Trash

Question of the day:

What types of trash can we find on Crystal Cove's beach?

Directions:

- 1. Empty the trash sample onto a desk.
- 2. Choose one piece of trash.
- 3. Use the field guide to decide what type of trash it is.
- 4. On the next page, place your piece of trash into the box for the correct type of trash.
- 5. Repeat steps 2-4 for each piece of trash. If there is already a piece of trash in a box, place the next piece into the box above it.



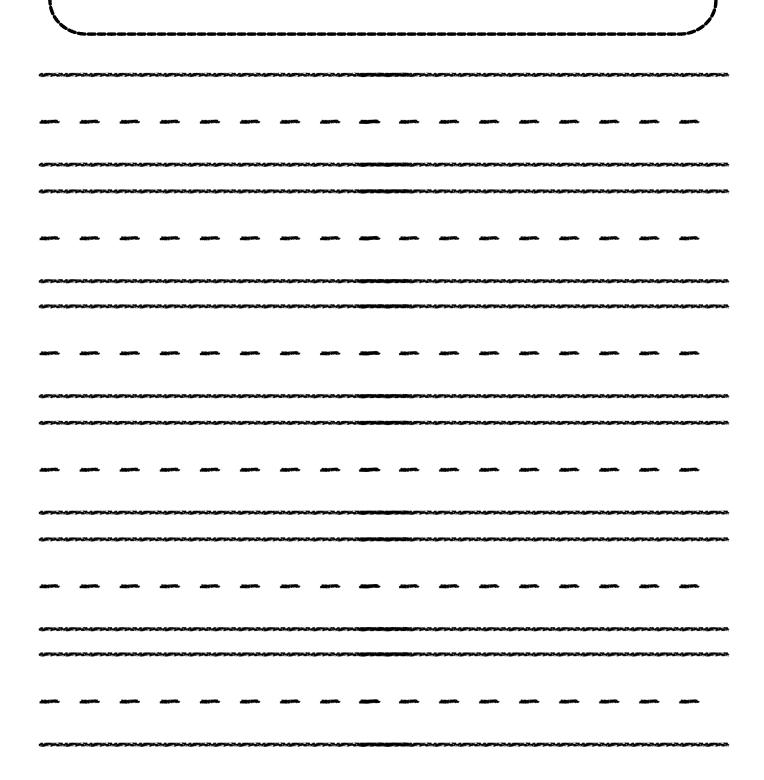
Module 3: Explore: Math Stories

Hard plastics had pieces of trash.
Soft plastics had pieces of trash.
Foam had pieces of trash.
Other had pieces of trash.
Which category had the most pieces of trash? Which one had the fewest?
The category that had the most pieces of
trash is
The category that had the fewest pieces of
trash is

The bottle caps in the hard plastic are recyclable.
There are hard plastics.
This includes bottle caps.
If we take the bottle caps away and put them in a recycling can, how many hard plastics are left? Use the space below to show your work!
If we recycle the bottle caps, there

hard plastics left.

Create your own math question about the graph!



Module 4 Launch

Question of the day:
Who told us about the problem?
We heard about the problem from
What is wrong?
Crystal Cove has a problem with



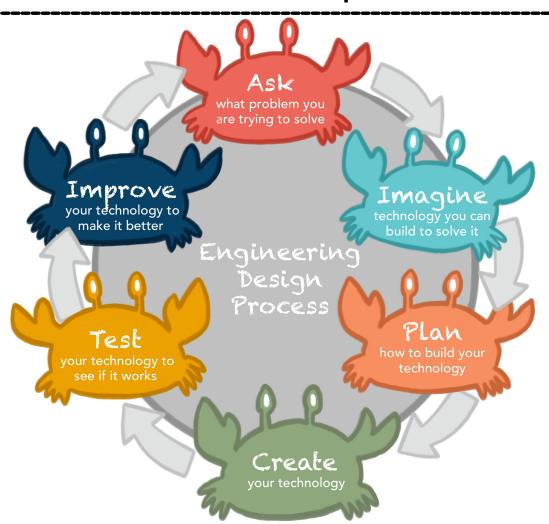
Where and when is the problem happening?

The problem is happening at	
ABOUTH	-
It is happening	
appringers in gers in g Agent agent ag	
Why does our community care about the problem?	
We care about it because	

Module 4 Explore Option 1

Building a tool.

Think about how we can design a tool to solve the problem!



We'll design our tool to pick up...

Design your tool!

Design your tool in the space below! Can you label the important parts?



Module 4 Explore Option 3

Use the space below to plan how you will share what you've learned!

	wildly00 ve ledified:
1.	I want to tell
	AND
	about the problem at Crystal Cove.
2.	I think people should know about
3.	After an audience sees my message, I want them to
	AND
4.	My message will be a

Sharing what we've learned. Use the space below to brainstorm or draw a first draft of your PSA!

Module 4 Explore Option 4

Planning a trash cleanup.
Use the space below to plan your trash cleanup!
1. We will pick up trash at
2. We will ask
to help.
3. We will need supplies like
ANITH

Module 4 Reflect

Who can help Steve?

Draw a picture of someone helping Steve with the problem that Crystal Cove is facing. Label the parts of your drawing.



Complete the sentence below to describe your drawing.

I think someone like
can help Steve by
AND

What do you wonder?

	What do you still wonder about the problem at Crystal Cove?
1.	
2.	
3.	

41

What you've learned.

Read the questions below. Then, circle the answer that describes you best!

1. I like to learn about the ocean.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

2. My family thinks of me as someone who can help protect the ocean.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

3. I am interested in new ways to protect ocean animals.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

4. I would help clean up green areas in my neighborhood.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

5. I am good at science.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

6. I can do something to help protect ocean animals.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

7. My family thinks of me as someone who is good at science.

I strongly agree. I agree. I don't know. I disagree. I strongly disagree.

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