

Ocean Field Guide



Check out this
amazing vanishing
octopus!



Name: _____



The Sea, once it casts its spell, holds one in its net of wonder forever.

-Jacques Cousteau



1. Ocean Garbage Decomposition: How Long Until It's Gone?

Decomposition:

de · com · pose

verb \,dē-kəm-'pōz\

: to cause something (such as dead plants and the bodies of dead animals) to be slowly destroyed and broken down by natural processes, chemicals, etc.: decay, rot

: to cause something (such as a chemical) to be separated into smaller or simpler parts

Scan the QR code to view the Ocean Garbage Decomposition Poster, "How Long Until It's Gone?".



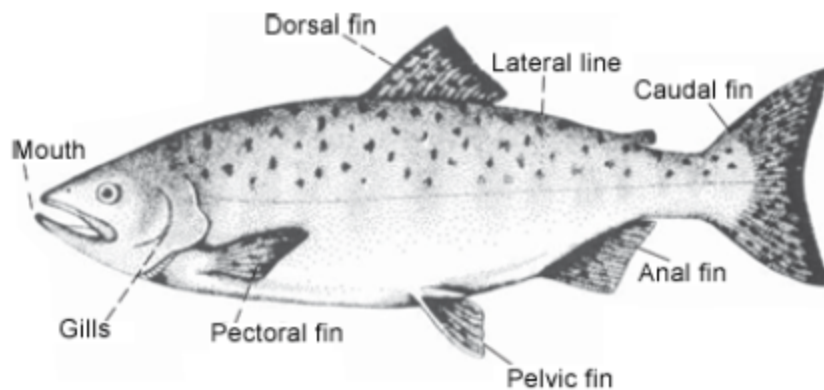
Use the poster to answer the following questions:

- _____ 1. If a styrofoam cup is swept up in the ocean this summer, what year will the cup completely decompose?
- _____ 2. How many more years will it take for a plastic bottle to decompose than an aluminum can?
- _____ 3. Which item will take the longest to decompose?
- _____ 4. What is the most surprising item on this list to you?
- _____ 5. Items made of which material will last in the ocean the longest?
 - a. paper items
 - b. plastic items
 - c. wood items
 - d. fabric items

2. Decode a Fish Station

Find the "Decode a Fish" station. Sort the fish into the appropriate habitat. Use the key to help you place the fish in their correct home. Some of them may fit into two places. After you have sorted the fish, take a picture of the poster to share with a teacher.

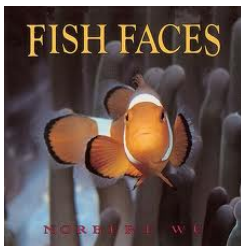
Decode a Fish



3. Fish Faces Poetry

Steps A-D

A. Read the *Fish Faces* book and notice all interesting fish shapes! You can either read the book or view it in the kindle viewer on the computer. You may view the book in groups.



B. Take a picture of yourself making a fish face.



C. Choose a poetry style and write your own poem about anything in the ocean.

Poetry Styles and Examples

Acrostic

A short poem in which each letter of the title is used as the first letter for one line. The poem does not need to rhyme.

Rays, lurking in the sand,
Are Amazon River dwellers.
You'll have to look closely to
See these well-camouflaged, ocellated swimmers!



Alliteration

Poem uses repetition of a sound within a word, line or phrase. Examples are tongue twisters and nursery rhymes.

J

ellies water
ourney is more
ive than jolt
iggle than jag.
ellies jam through water like
azz!

S

wimming in the sea
oupfin sharks' tails
swish,
earching hungrily for a
quid and fish dish!

Catalogue Verse

Brainstorm verbs that describe actions of ocean animals. Add "-ing" to the verbs and list them in a column.

Example verb list:

Breathing	Flowing	Sleeping
Camouflaging	Fluttering	Smashing
Clinging	Grasping	Smelling
Closing	Grazing	Splashing
Crashing	Gulping	Stinging
Crawling	Hiding	Swallowing
Diving	Holding	Swimming
Eating	Lurking	Touching
Eyeing	Munching	Walking
Floating	Opening	Wobbling



Clinging
Crawling
Gripping
Turning
Sea Star

Japanese Haiku

A three-line, unrhymed poem often written about nature and expressing a feeling.

Structure:

Line 1: five syllables
Line 2: seven syllables
Line 3: five syllables

Turtle and Trash

Sunshine warms the back
of a bobbing sea turtle.
Plastic drifts nearby.

Zebra Shark

Night hunter of prey
squeezes into crevices.
Feelers find their mark.

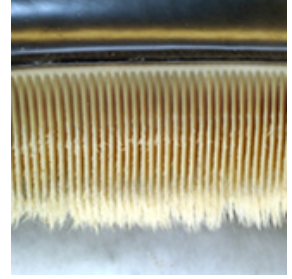
D. Scan this link to get a poetry template page. Download the file and open it in the



Notability app. You will put your picture and poem together on this page. Email your "fish face" poem to your teacher.

5. Baleen Experiment

Look for the table with a tub of water labeled "Baleen Experiment".



(Baleen)

Definition: **Baleen** is a fibrous yet elastic structure that enables some whales to filter food from the water for ingestion. Baleen is composed of keratin and grows in long thin plates with brush-like, frayed edges that hang down from the animal's upper jaw.

Definition: **Krill** are small shrimplike planktonic crustacean of the open seas. It is eaten by a number of larger animals, notably the baleen whales.

Baleen Experiment

The comb is like teeth and the toothbrush is like baleen. The pepper is like krill.

1. Which do you think will pick up more pepper- the comb or the toothbrush? Why?

2. Drag the comb through the water. Then drag the toothbrush through the water. What do you observe?

6. Blubber Experiment

Find the table with a tub of water and gloves, labeled "Blubber Experiment".

Definition: **Blubber** is the fat of sea mammals, especially whales and seals

Blubber Experiment

1. Stick your hand in the water. Can you keep it there for 15 seconds? _____

2. Put on the glove, then stick your hand in the water. Can you keep it there for 15 seconds? _____

3. What was the difference between your bare hand and the glove?

4. How is this like whale blubber?

7. Food Chain






Open up Brainpop jr. app and watch the video on "Food Chain"

Login:

username: cce1

password: cce1

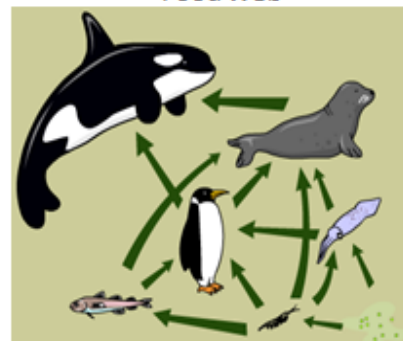
You will need headphones! After watching the video, click on the "game" button below the video to make food chains and watch them come alive. Then answer the questions below.

	Questions	Challenge
	These are examples of: A. Producers B. Consumers	Producers get their energy from the _____. <u>from the sun.</u>
	This picture shows the eagle about to eat the mouse. The eagle is the: A. Predator B. Prey	Circle the predator. 
	These animals eat plants only. This means they are: A. Carnivores B. Herbivores	These are most likely the teeth of a/an: A. carnivore B. herbivore 

Food Chain



Food Web



After watching the movie, use the food chain and food web pictures to show what you learned:

1. Put an X on the producers.
2. Put a box around the 2 animals without any predators.
3. Circle any animals that can be prey. (Remember, some prey are also predators.)

8. Predators Beware!

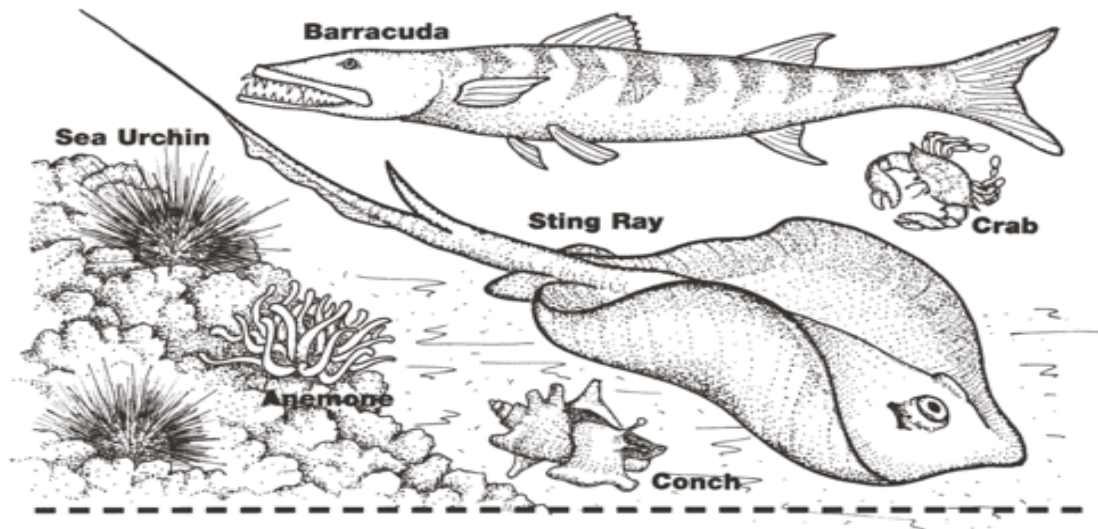
You will need your iPad, some headphones and a pencil for this station! Scan the QR code below to watch this video and then complete the sheet about ocean animal

defenses.



PLAYING IT SAFE

Many ocean animals have special body parts that help protect them from hungry predators. These are called *defenses*. Find one animal with each of the defenses described below. Write its name on the line.



1. a whip-like tail that stings _____
2. spikey spines like a porcupine _____
3. claws that act like pinchers _____
4. sharp teeth _____
5. stinging feelers called *tentacles* _____
6. a tough shell _____

EXTRA: Draw an imaginary sea creature that has all of these defenses. Then give it a name!

9. Globe Toss

Find the station labeled #7 "Globe Toss". You will need a partner.

Throw the globe to your partner 20 times. Make tally marks when you catch it. Is your right thumb on water or on land?



Water

Land

--	--

How many times was your thumb on water?

How many times was your thumb on land?

What does that mean?

10. Ocean Problems



Scan the code to read and look at the posters showing the problems of the earth's oceans. After looking at the posters, answer the questions below:

1. Describe one ocean problem/concern:

2. List 3 ways this problem could be solved. Please write in complete sentences.

1.

2.

3.

11. Shell Sort



Scan the QR code to watch a short video about bivalves and univalve shells. You will need headphones! Find the table #12 with the shells and sorting sheet. Sort the shells into the correct categories; take a picture of your work and show your teacher.

12. Oil Spill!

Watch this video clip of an oil spill in Alaska. You will need headphones!

Click on the QR code and then you will have to login:



USERNAME: cedarcreek

PASSWORD: library

Find the table with #13 "Oil Spill".

Next, you will be experimenting with the effects of oil on the feathers of birds. After experimenting, answer the following questions.

1. Can birds fly with oil coating their feathers? Why/Why not?

2. How can humans help birds that have oil on them?

3. Can birds fly once oil has been washed off?

4. Can birds fly when they have had oil removed from their feathers and they are wet?

Draw and label an illustration that answers the question: How does oil affect feathers?





13. Ocean Habitats

Open up Brainpop jr. app and watch the video on "Ocean Habitats". You will need headphones!

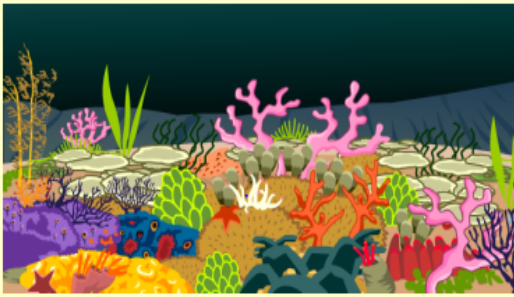
Login:

username: cce1

password: cce1

After viewing, answer the following questions and complete the drawing.

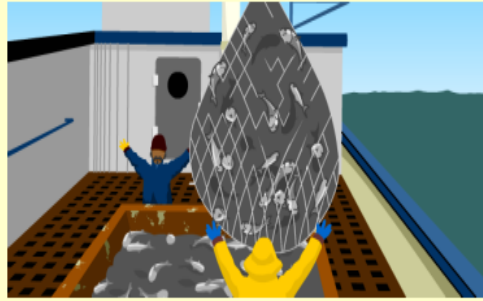
1.



Which sentence about coral is TRUE?

- (a) Coral is a kind of plant.
- (b) Coral is a kind of animal.
- (c) Coral lives in freshwater.
- (d) Coral lives in the deep sea.

2.



Overfishing can cause some kinds of fish to be ENDANGERED. What does ENDANGERED mean?

- (a) harmful to living things
- (b) helpful to plants
- (c) very few of its kind are left
- (d) many of its kind are left to eat

3. Why do you think the midnight zone is very cold?

- (a) Sunlight cannot reach the midnight zone to warm it.
- (b) There are not many animals there to keep it warm.
- (c) Vents in the Earth's crust give off very cold gases.
- (d) The midnight zone is found under the North Pole.

4. Which is the LARGEST ocean zone?

- (a) the sunlit zone
- (b) the twilight zone
- (c) the midnight zone
- (d) the coastal zone

5. What happens LAST?

- (a)** A fish eats the plastic pieces and gets sick.
- (b)** A person throws a plastic bag on the ground.
- (c)** The bag goes down a gutter and into the ocean.
- (d)** The plastic bag breaks down into pieces.

Draw an animal you might find at each of the zones:

Sunlit Zone

Twilight Zone

Midnight Zone

14. What am I?

Ocean Matching game

Find the table marked #9. Read each animal description and find the animal. Place the animal on top of the description. Take a picture when you are done.

15. Life Cycle of a Sea Turtle

Watch the video about the life cycle of a sea turtle. You will need headphones!

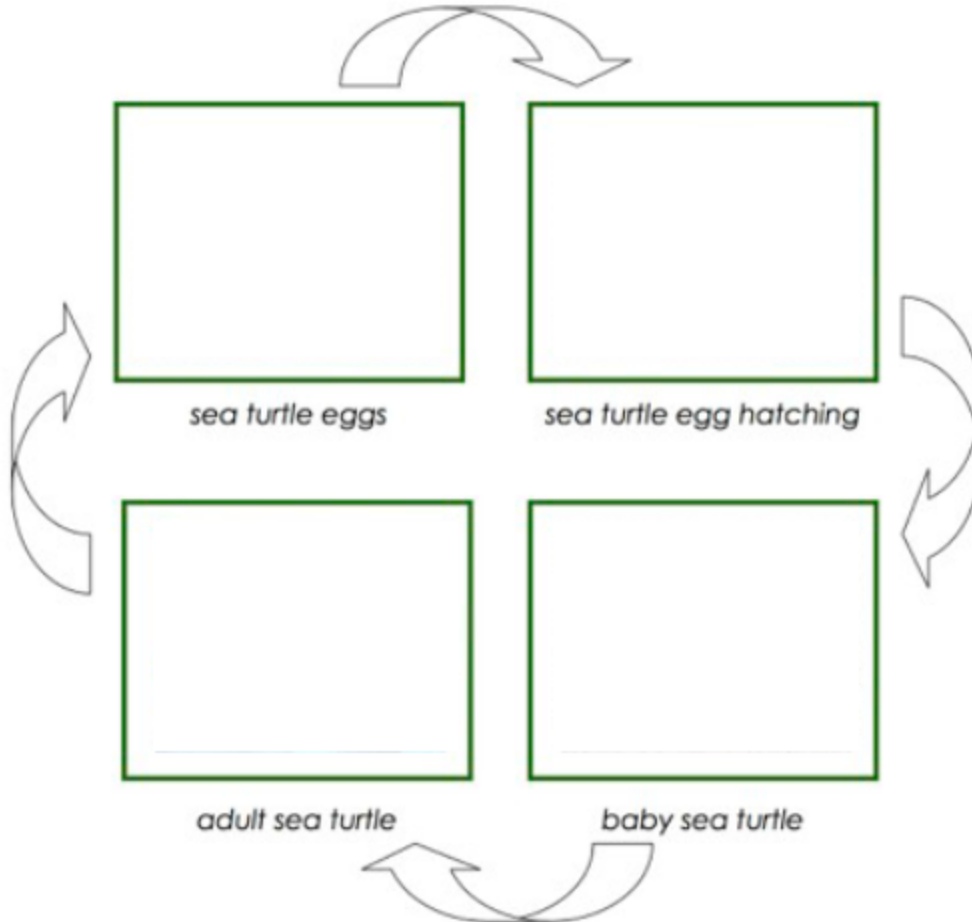
If you need to login to Novell, remember your username: initials + lunch #

PW: 12345678

Then complete the picture below by drawing the stages of the life of a sea turtle.



The Life Cycle of a Sea Turtle



16. Bonus! You may complete this task **ONLY** if you have finished all of the other stations 1-15.

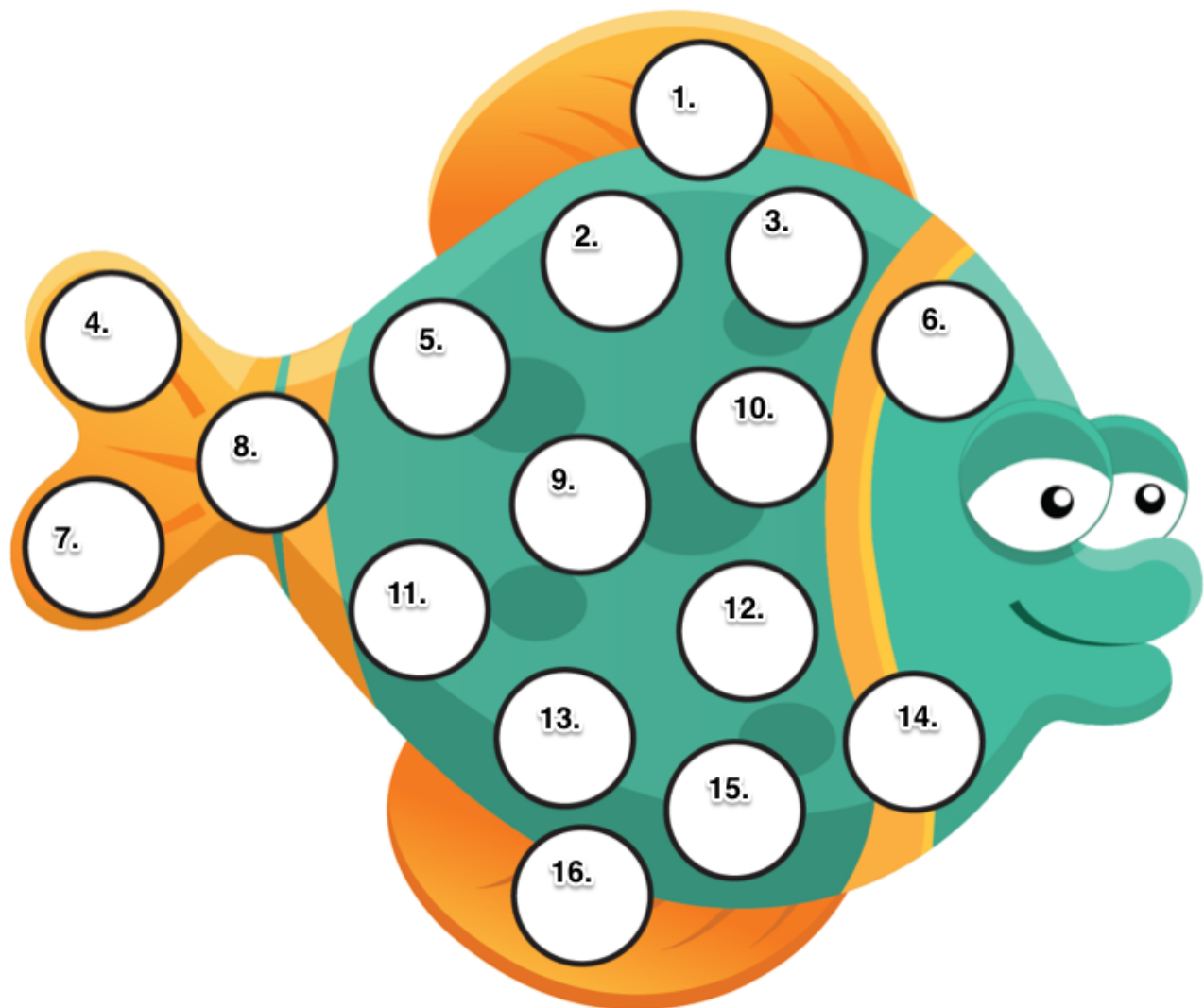
Tissue Paper Ocean Art



Choose one template or design your own. Glue it to a piece of construction paper to give it more support. Choose your colors of tissue paper, tear them into small pieces, and glue them onto your picture.

Ocean Field Guide Checksheet

Once you have completed a station, have a teacher check your work and mark the bubble.



Fish