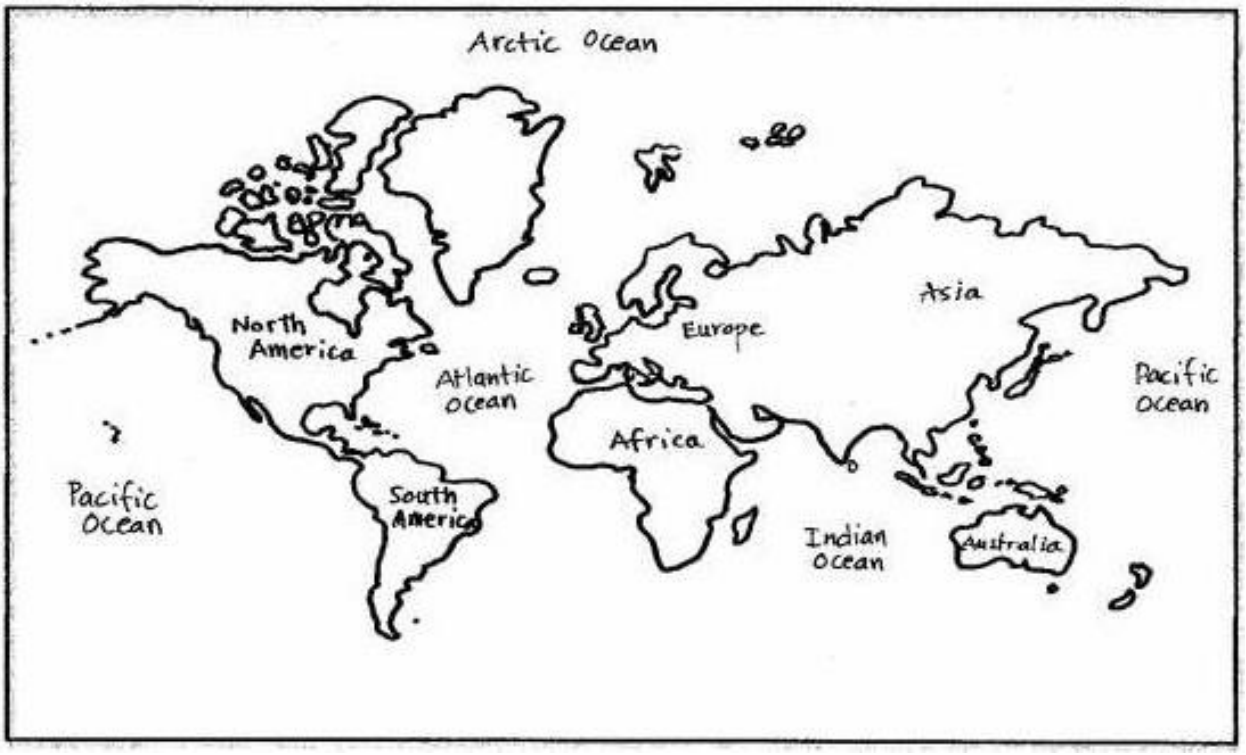
Shellfish around the World

Shellfish are **mollusks** that appeared on earth more than 500 million years ago according to the fossil record. Marine shellfish have lived along coastlines worldwide, providing food and resources to native peoples since before anyone can remember.

1) Trace the coastline of **two** continents where shellfish are found and record the continent names

a)_____b)_____



2) Study the large map. What are two things that you notice about where the shellfish are located?

_____

_____

3) What questions do you have?

_____

_____

4) Name the oyster commonly found in the Chesapeake Bay, on the east coast of North America

_____

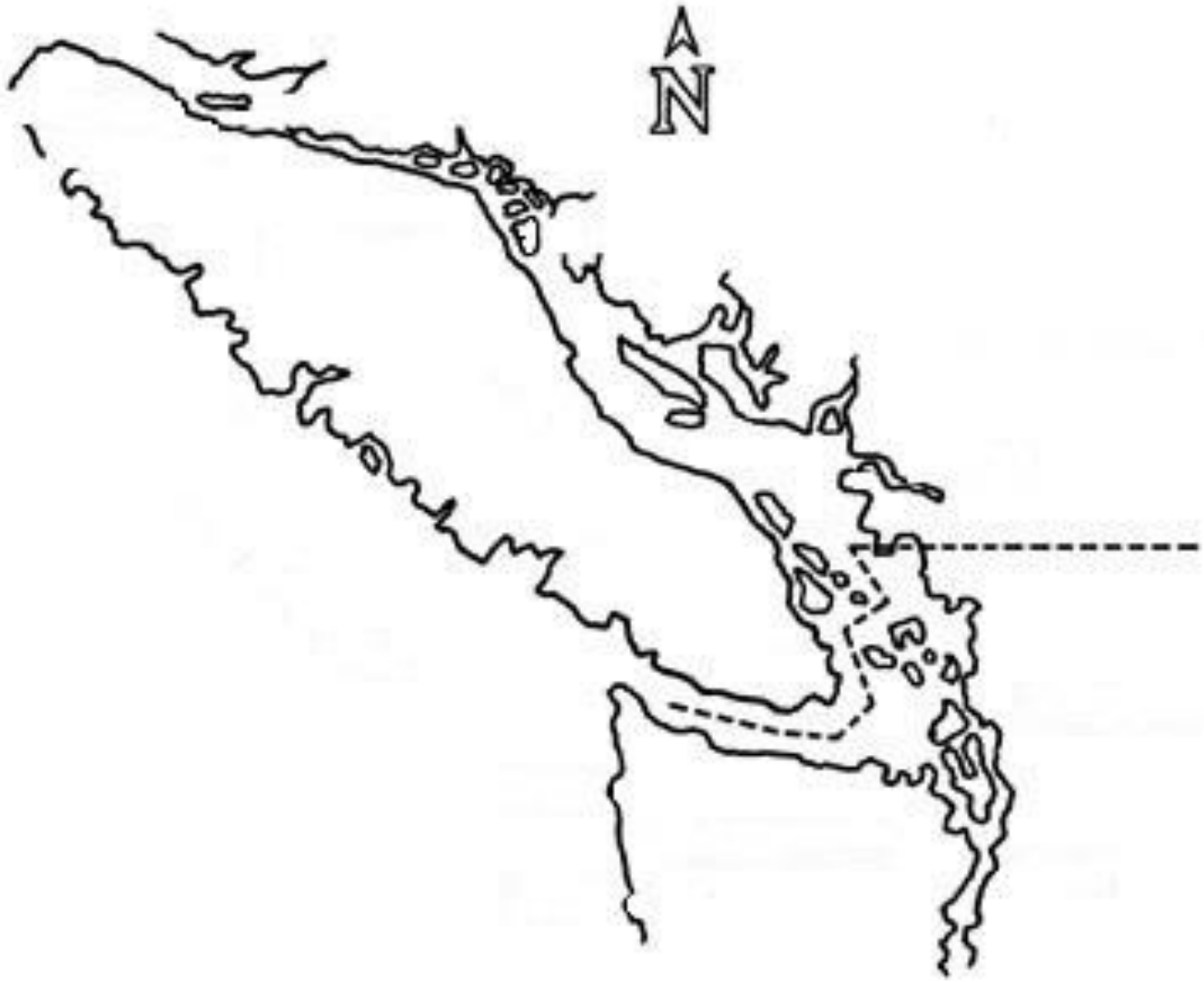
5) Pick a shell on the map to learn more about. Look at the card for this shell and record something interesting about it. Where is it found?

_____

_____

Introduction to the Salish Sea

Color the waters of the Salish Sea one color and the coastlines in another color. Label 3 water bodies and names of 3 coastlines.



Community Interviews

#1 Interviewee: Adult family or guardian member

Show this person where the Salish Sea is located.

1. Do you think the Salish Sea is important and why/why not?

Response:

_____

_____

2. How do they connect with the ocean? (Examples: fishing for fun, taking long walks, kayaking, food, etc.)

Response:

_____

_____

#2 Interviewee: Adult Non-immediate family member (grandma, neighbor, store cashier, etc.)

Show this person where the Salish Sea is located.

1. Do you think the Salish Sea is important and why/why not?

Response:

_____

_____

2. How do they connect with the ocean? (Examples: fishing for fun, taking long walks, kayaking, food, etc.)

Response:

_____

_____

Salish Sea Stewards Challenge Bingo

Let's try to create a habit by adopting certain routines in our daily lives because we care about protecting our oceans. Every few days we'll re-visit this sheet and X off the actions you/your family have done during this unit... Whoever gets a bingo by the end of the unit gets a Salish Sea Sticker!

I want to protect my Salish Sea because… (Use words or pictures)

Poop in Drayton Harbor Video Student Question Sheet

1. How many gallons a day can shellfish filter?

2. How does fecal coliform bacteria (poop) get inside shellfish?

3. According to the video, why should people care that there are fecal coliform bacteria in the water?

Poop in Drayton Harbor Video Student Question Sheet

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Healthy Watersheds Design

What are three sources of pollution you saw in the watershed model? Label them as non-point sources (NP) or point sources. (P)

1. _____

2. _____

3._____

Label/outline as many landmarks as you can on the Drayton Harbor Watershed map in your favorite colors. Include your house, the school, and 2 streams.

Healthy Watersheds Design

Name two things you can do to decrease the amount of pollutants that reach our intertidal zones

1._____

2._____

Design your own watershed below (use the outline of Drayton Harbor Map if you'd like). Then, draw some farms and houses near streams. Finally, add each item listed below strategically on your map. Be prepared to explain your thinking to the group. Label everything!

Include: farms, houses, storm drain, a bunch of cows (dairy farm), trees, fields of grass, at least two streams, sidewalks and roads, a plastic bag, a stone pathway, a kid with a dog, fences.

Extra: solar panels, gardens, an organic farm, a bicycle. How might each of these help reduce ocean water pollution?

Types of Water Pollution (*Answer Key)*

Directions: Navigate to https://climatekids.nasa.gov/ocean/. Use the search bar to find more resources and prepare to present your information about types of water pollution. Record the title and type of each resource. Annotate your thinking.

Video/Activity/ Article Title	**Big Idea about Water Pollution**
	Resources: *all about how air pollution *Slideshow: LOCAL WATER QUALITY PROBLEMS
Meet the Greenhouse Gases, Cards *(Activity)*	(find this activity by typing "water pollution" in the Climate Kids search bar)
"What is Ocean Acidification?" (Article)	(location: type "water pollution" in the Climate Kids search bar)
Climate Bingo! (Activity)	**(**location: click on green "Plants and Animals" tab, scroll down, click "Play Bingo!")

Climate Bingo! (Activity)	**Stewardship: What Can We Do?**
	Discuss the many ideas from climate bingo.

Student Dictionary:

Carbon dioxide (CO_2): an invisible gas that comes from burning fossil fuels (cars burn a type of fossil fuel)

Fossil fuels: Fuels made by burning coal. For example, fuels used to power an airplane, bus, or car are usually fossil fuels.

Atmosphere: the whole mass of air that surrounds the Earth

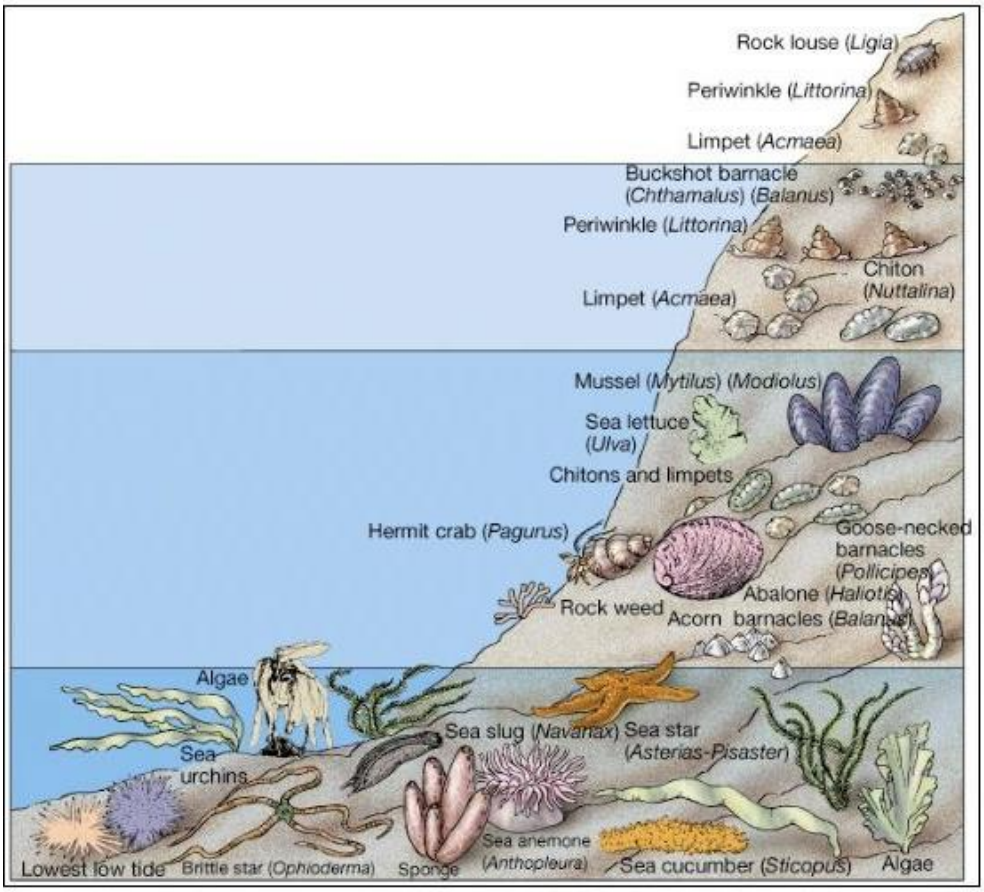
Cognitive Content Dictionary

WORD	PREDICTION	SKETCH	FINAL DEFINITION	ORAL SENTENCE (checks)

Exit Ticket:

1. Draw a picture of an intertidal ecosystem. Draw and label 2 biotic and 2 abiotic factors. Please include a caption describing what an intertidal ecosystem is.

2. What are the four zones of an intertidal ecosystem? Where does an oyster live and how does it survive (name a challenge and adaptation the oyster uses)?



_____

_____

_____

_____

_____

Life Cycle Worksheet

Oyster Life Cycle

What is a baby oyster called when it has just attached to a substrate (rock or shells)?

_____

Clam Life Cycle

Does the clam attach to anything?

_____

What does this tell you about where it lives (habitat and substrate)?

_____

Barnacle Life Cycle

Is a barnacle a shellfish?

_____

Do barnacles attach?

_____

Summary

What is something that all of these life cycles had in common?

_____

What is something that was different?

_____