

It's YOUR Oregon Coast: Making Coastal Connections

Teacher's Guide

Program Overview: This 6th-7th grade program focuses on the characteristics that make the Oregon Coast special and unique, and ways that people can build their relationship with coastal places, organisms, and ecosystems. Using a place-based education approach, we aim to improve students' connection to the Oregon Coast by using visual aids (e.g., maps, photos, technology) and various aspects of place as educational tools. This program follows a broad and open-ended framework, providing structure for students to investigate their surroundings using many different experiential learning approaches, including journaling, field-based activities, observation, and reflection. They will share their experience with others, as well. Although the activities are teacher-guided, this program is intended to encourage a range of individual responses from the students.

Guiding Questions: *What makes a place meaningful or special? What, in particular, makes the Oregon Coast meaningful or special? What makes it special and important to you?*

Learning Objectives

This program aims to:

- Engage students with the Oregon Coast and Oregon Coast Aquarium through a variety of targeted activities
- Help students explore and interpret what the Oregon Coast means to them as individuals
- Influence how students see themselves in relation to the Oregon Coast
- Integrate marine science/coastal education and geographic concepts into the classroom

Students will:

- Develop an understanding of what the Oregon Coast means to them
- Use observation skills to conduct inquiry
- Analyze, interpret, and gather information from maps and other sources
- Experience first-hand the Oregon Coast and the Oregon Coast Aquarium
- Explore and learn about Oregon's geography

Suggested Time and Teaching Sequence: This guide contains supporting background information, instructions, and resources for the *It's YOUR Oregon Coast: Making Coastal Connections* program. This program consists of two field trips to the Oregon Coast Aquarium and eight classroom activities, including an introductory and culminating activity. Each of these activities is designed to accommodate one to two class periods. Assuming two days for field trips to Oregon Coast Aquarium, you can expect this entire curriculum to take two school weeks, or between 8-10 class periods. If your time is limited, you may also choose to use only a few selected activities. Adapt this curriculum to best suit your needs, student interest, and teaching topics.

In general, this guide was designed to be followed as written; that is, the activities are provided chronologically. Of course, due to time and resource availability and field trip scheduling, you may also choose to "jump around" as appropriate. The activities were designed to be implemented in the classroom both before and after the field trips to the Oregon Coast Aquarium. Regardless of when your field trips occur, we encourage you to generally follow the activities in the order they are provided. This sequence was specifically

designed to build student inquiry, from specific knowledge, to broader understanding, and finally to genuine care and concern for Oregon Coast places and ecosystems.

Each of the activities follows the 5 E's approach to learning: an inquiry-based instruction model that provides a five-stage teaching sequence, each phase beginning with the letter "E." The 5 E's model helps students build their own understanding from experiences and new ideas. The goal is not necessarily to find the answers, but to learn *how* to find the answers. The role of the teacher is to facilitate and support students as they use and build on prior knowledge to construct meaning, and to continually assess their understanding of a concept. The 5 E's are:



Engage: This phase starts the process by mentally engaging students in the concept, process, or skill to be learned.

Explore: During this phase, students actively explore their environment or manipulate materials.

Explain: This phase helps students explain the concepts they have been exploring and provides opportunities for teachers to introduce formal terms, definitions, and explanations for concepts, processes, skills, or behaviors.

Elaborate: This phase extends students' conceptual understanding and allows them to practice skills and behaviors.

Evaluate: This phase encourages learners to assess their understanding and abilities and lets teachers evaluate students' understanding of key concepts and skill development.

Journaling: A key component of this program is journaling—the process of keeping a personal record of events, observations, and experiences. This process should be an ongoing one over the course of this program. There are prompts for student journaling throughout. Encourage students to collect small objects that tell a personal story about their connection to the Oregon Coast. These objects can be natural and manmade, such as notes and sketches, safe items found on the beach, leaves, etc.

The goal of this process is to have students look at both new and familiar places with a sense of discovery and to develop a deeper awareness of the Oregon Coast. One of the best things about daily journal writing is that it can take so many forms. Teachers can use journal writing to meet specific goals, or the purpose can be wide open. Some teachers may want to check journal writing and work on polishing skills; others may choose to use journals as the one "uncorrected" form of writing that students produce. You may provide prompts to help students begin their writing or leave decisions about the direction and flow of student journals up to the students.

Subjects and Standards: This lesson helps support middle school standards in Geography, Language Arts, Social Studies, and Science. Each activity provides a list of aligned Oregon state standards.

Materials List:

- Journal for each student
- Computers with internet access
- PDF entitled "Maps_Student Atlas of Oregon"
- PDF entitled "Oregon Coast Photos"
- PDF entitled "Pictures_Estuaries, Sandy, Rocky"
- Optional: Online version of Student Atlas of Oregon website: <https://archives.pdx.edu/ds/psu/26710>
- Optional: Oregon or Pacific Northwest plant and tree identification guides

Teacher Preparation: First, review this entire packet. Consider how this curriculum ties to your other curriculum, education standards, and learning goals. Think about how you might wish to engage guest speakers or community partners, and assess student learning. Plan out your implementation schedule so you know when you'll be teaching each lesson. Be sure to review each activity beforehand and give yourself enough time to prepare any necessary materials.

When you are ready to start this program, contact the Oregon Coast Aquarium to book your field trip date(s). For questions or support, contact education@aquarium.org.

Field Trips to Oregon Coast Aquarium

Overview: You will be taking your class on 1-2 pre-arranged field trips to the Oregon Coast Aquarium where they will learn about local flora and fauna, examine exhibits, listen to sounds, view images, and much more to encourage dialogue and reflection about the region.

Field Trip 1: Students will become familiar with the Aquarium, exploring the exhibits and galleries to learn about local wildlife and ecosystems. At each stop, students will be engaged in answering questions, making observations, and taking notes in their journals to gain an understanding of what makes the Oregon Coast so special. This field trip should take place towards the beginning of this curriculum, ideally before Activity 5.

Field Trip 2: During their second visit, students will examine an exhibit more closely, choosing one animal to observe. They will analyze its behaviors and surroundings to determine how the exhibit succeeds in sharing the specialness of the Oregon coast with visitors. This field trip should take place towards the end of this curriculum, but before Activity 8 (culminating projects). It can be facilitated at the Aquarium or virtually.

Optional Activities:

- During the drive, you might consider having your students make observations about the distinctive landscape features they encounter (e.g., landforms, plants, buildings, dunes, jetty, lighthouse) while traveling to—and around—the Oregon Coast. Have them also make note of how the landscape changes over the course of their drive to Newport in their journals.
- While at the coast, take your students on a beach walk and have them make notes about their experience in their journals. Encourage them to draw pictures, make maps, collect and sketch biofacts such as leaves and shells, write a poem or story about the place and what it means to them, personally. They can also use their senses to make a list of the things that they see, smell, touch, hear, taste.

Debrief: Back in the classroom, you will want to debrief with your students about what they learned and what they feel is the significance of their Oregon Coast experience by asking the following questions. You may want to ask some of the same questions after both field trips, to compare and contrast and gauge how each trip may have influenced student understanding:

- *Describe some of the distinctive landscape features you saw (e.g., landforms, plants, buildings, dunes, jetty, lighthouse) while traveling to—and around—the Oregon Coast.*
- *Discuss how the landscape changed over the course of their drive to Newport and explore ideas as to why the landscape changes occur (e.g., climate, population).*
- *What are your feelings about the Oregon Coast? How did this coastal experience make you feel?*
- *Describe the different sensations (e.g., sights, sounds, smells, touches, tastes) that you experienced.*

- *What was your most memorable part of the experience?*
- *What were your favorite exhibits at the Oregon Coast Aquarium and why?*

Activity #1 – Journal Preparation

Overview: A journal is a powerful tool with the ability to unlock creativity, hone observation skills, and serve as the data collection backbone of the scientific process. At the same time, the process of journaling reinforces important reading, writing, and drawing skills. Journaling can be easily implemented anywhere and at any time in the learning process.

In this activity, students will create a personal journal and practice recording their thoughts and sensory observations. The goal of this activity is twofold: (1) to teach students the importance of using a field journal correctly, and (2) to work on student’s note-taking abilities. To elicit good habits, teachers should ask driving questions and instruct students to make comprehensive recordings. This is an ongoing process and will require a lot of modeling and practice.

Time Required: 30-45 minutes

Standards Addressed:

Common Core for English Language Arts:

CCSS.ELA-LITERACY.WHST.6-8.10 Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Engage: Provide your students with notebooks or journals to record their field data and discoveries. Or, you can have the students make their own journals by stapling half sheets of paper together. NOTE: If they make their own, students may need a hard writing surface (e.g., a clipboard) in the field.

Optional: Depending on the amount of effort you want students to put into their journals, below are a few more elaborate options for making their own.

- This requires threading the papers together, however it gives the option to make it however big you would like, and also the option to be creative. The "sturdiness" of it would just depend on using cardstock or even cardboard depending on how thick you want it.
www.creativityprompt.com/creativity-prompt-8---making-your-own-hardbound-journal/
- These YouTube tutorials shows how to make a journal with a wooden cover. It looks very nice and could be adjusted to make any size. However, this option is more time consuming.
<https://www.youtube.com/watch?v=8AUieibgZHw>
<https://www.youtube.com/watch?v=ue52htX3j0k>
- Another example is to use a preexisting book, so it would have a sturdy cover, and to create pages by inserting them into the book. An example of this is shown in the video link below.
<https://www.youtube.com/watch?v=dW41dDEQjxA>

Explore: Once students have a personal journal, give them a few minutes to write their name in their journal and allow students to personalize their journals, providing them a sense of ownership. Then, give them 10 minutes or so to respond to the following prompts: *If you had a friend visit from another state, what is the one place in Oregon that you would insist they see? What makes this place so special?* They may choose to respond with drawings, writings, or both.

Explain: Tell the students that they will be studying the Oregon Coast over the next couple of weeks (or longer, depending on how long you wish to provide for final projects – see Activity 8). Tell them that they will visit the Oregon Coast Aquarium and will be keeping a personal journal throughout the unit which will be a collection of activities, drawings, writings, and collected items. Explain that the journal is intended to serve as a collection of reflections about a place and their connections with it. The journals should include both personal expressions (e.g., poems, sketches) and objective observations (e.g., weather, wildlife behavior). Encourage them to use their journals whenever it occurs to them, not only when provided a prompt by the teacher.

Elaborate: Give students an opportunity to practice making observations by taking them outside (ideally) or you can stay in the classroom. At the start of each journal entry, have the students record the date, time of day, and current location. After recording this basic information, have students simply observe for a few minutes. Then, ask students to record what they see, smell, hear and otherwise notice in their surroundings. They should make first-hand, concrete observations.

Evaluate: Back in the classroom, divide students into small groups and provide an opportunity for the students to share their observations. Encourage them to provide constructive feedback to each other about how they could improve their note-taking or communication.

Activity #2 – What is sense of place?

Overview: Students will be able to define sense of place and explain why a place is special to them.

Time required: 30-45 minutes

Materials: chart paper, post-it notes

Standards Addressed:

Grade 7 College and Career Readiness Anchor Standards for Reading:

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Engage: Ask students, “Is there a place you really like to be?” Invite a few students to share a bit about their special place (where it is and why they like to go there).

Explore: Give students the opportunity to freely write in their journals about their place of choice. Encourage them to describe it in as much detail as possible using sketches, lists, sentences, etc. You might list prompts on the board so students can consult them throughout, or provide prompts over the course of the free writing period. Possible prompts:

- Close your eyes and imagine you are in your place. What do you see? What do you hear? Smell? Feel?
- What animals or people are in this special place?
- What non-living things are in this special place?
- What do you do when you visit this place?
- How do you take care of this place?

- Does anybody else visit this place? Your family? Your friends? Strangers?

Explain: Explain to students that as a class you are going to be exploring why places matter to people. This feeling when a place is special to you is called “sense of place.” Anthropologists Steven Field and Kevin Basso further defined sense of place as “ways places are known, imagined, yearned for, held, remembered, voiced, lived, contested and struggled over.” Share this quote, and ask students what they think it means.

Elaborate: Distribute several post-it notes to each student. Explain that students are going to have a few minutes to jot down some reasons their place is special to them, one reason per post-it note. Model with your own place and a few of your own post-its if necessary.

- Give students two or three minutes to record reasons on their post-its.
- Then have students form small groups and sort their reasons into categories that make sense to them. Examples of categories might include, “things we do in our places,” “animals that live in our places,” “family connections to our places,” etc. Encourage students to look for groups and patterns in their reasons, and organize their post-its as they see fit.
- When students have had a few minutes to work, lead a class discussion about their categories. Have students share the categories they created, and their reasoning; encourage students from other groups to share similar or dissimilar categories they came up with.
- Record consensus categories on chart paper and save this as a class list of the factors that make up “sense of place.”

Evaluate: Review students’ journaling, and their class list of categories. Can students articulate why a place is special to them? Do their categories represent why a place might be special to someone?

Activity #3 – Mapping Our School

Overview: Students will create a map that models their relationship to their school, and be able to identify the purposes of different types of maps.

Time required: 45-60 minutes (you may wish to conduct this over two class periods)

Materials:

- maps of Oregon from the Student Atlas of Oregon ([https://www.pdx.edu/geography-education/sites/g/files/znlchr2416/files/2021-01/Student Atlas of Oregon English-with-page-numbers-1-29-21.pdf](https://www.pdx.edu/geography-education/sites/g/files/znlchr2416/files/2021-01/Student%20Atlas%20of%20Oregon%20English-with-page-numbers-1-29-21.pdf))
- your class list of sense of place factors
- maps of the school and schoolyard for each student
- one sticky note for each student; one clipboard for each student

(Note: One very easy way to create a school map is by using Google Maps’ “satellite view.” Visit maps.google.com, enter your school’s address into the search bar, and then switch to satellite view. You can zoom in or out as much as you like to create your ideal map, and then print the image.)

Standards Addressed:

Next Generation Science:

5-ESS2-1: Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

Social Sciences – Geography:

7.13 Construct and use maps, graphs, charts, models, and databases to make analytical inferences and predictions regarding geographic distributions.

7.14 Interpret maps and other geographic tools to find patterns in human and physical systems.

7.15 Explain how the physical and human characteristics of places and regions connect to human identities and cultures.

Engage (5 mins): Display the “Unusual Place Names” map from the Student Atlas of Oregon. Ask students, *what is this a map of? What do they notice about this map? What is this purpose of this map? What did the person who made this map, the cartographer, want us to know or understand?*

Explore (15 mins): Tell students that they are going to practice identifying the purpose of different maps. Divide students into groups of four or five, and assign each group a map from the Student Atlas of Oregon. Their job as a group is to determine the purpose of their map. Varied maps include:

- Rivers and Lakes (a map of Oregon’s rivers and lakes with no key or additional text)
- Average July Temperature (a temperature map of Oregon with a chromatic key)
- Recreation and Tourism (a map of recreational opportunities with a key)
- Native Americans: 1780 Population (a map of historical and present-day Native American populations, with a key and additional text for context)
- Employment: By Sector (a map of employment in different regions of Oregon, with information conveyed via pie charts)

As students work, move between groups asking questions to help them determine the purpose of their assigned map. What is the map modeling? What information did the cartographer, the mapmaker, include? Did the cartographer provide any additional tools (a key, a written explanation, etc.)? Does this map give you information about a different time or place? Does it help you compare or contrast different parts of Oregon? What does it tell you about where you live? Once students have had five or ten minutes to discuss their maps in small groups, ask each group to briefly share their map and the purpose of their map with the class.

Explain (15 mins): Tell students that maps are a type of model, and they can be used to describe or explain many different things. If necessary, discuss the definition of a model (“a simplified representation of a system that can explain and help make predictions”). Remind students about sense of place—the feeling of connection that people have for a particular place. Ask them: *if you were going to make a sense of place map of our school, what kinds of things would you need to mark on your map? How could you use a map to model the feeling of connection you have to our school?* Point out that one tool mapmakers (*cartographers*) use is a key, like the key in the Recreation and Tourism map. A key tells people who are reading your map what different symbols mean—and the things you choose to represent in your key are an important part of creating a model like a map.

As a class, create a “sense of place key.” The class list of sense of place categories you made in the previous lesson is a great starting place—for example, if your class list includes “fun things we do in our special place,”

then your sense of place key should feature a symbol to denote recreation. Try to limit your key to four or five symbols. Have each student record the class sense of place key on a sticky note.

Note: there could be a class key to support students but also the option for students to choose their own symbols (more personal, more meaningful).

Elaborate (20 mins): Distribute maps of the school to each student. Have them affix their sense of place key sticky note to the map. Tell them that they are going to create their own personal sense of place model, using the key as a guide. As a class, you are going to go around the school—both outside and inside—and explore the space, thinking about the things that make you feel a connection, a sense of place. Students should mark those things on the map using the symbols from their key—for example, if they remember playing on the swings with their best friend in third grade, they might mark the swing-set with the symbol for “recreation.”

Take students outside and give them the opportunity to explore, confer, and mark their maps. If there is time when students return to class have them share their map with a partner and explain one or two of their marked places. Why did they mark that place? How does that place help them feel connected to the school?

Evaluate: Can students explain why they chose to mark particular locations, and how their map models sense of place?

Activity #4 – Ecoregions Exploration

Overview: This activity is designed to help students think about the Oregon Coast in a number of different ways. Students will: (1) draw pictures of what they anticipate seeing during a visit to the coast, (2) explore a variety of maps that help them compare and contrast their hometown to the Oregon Coast and (3) examine photos of animals, recreational activities, and other physical features of the Oregon Coast.

Time Required: 45-60 minutes

Standards Addressed:

Social Sciences - Geography:

7.13 Construct and use maps, graphs, charts, models, and databases to make analytical inferences and predictions regarding geographic distributions.

Next Generation Science:

LS2.C: Ecosystem Dynamics, Functioning, and Resilience

LS2.A: Interdependent Relationships in Ecosystems

Engage: Remind students that they will be making one or two field trips to the Oregon Coast Aquarium. Then, have students draw a picture of what they anticipate seeing while visiting the Oregon Coast, at the Aquarium, or in the general area. If they're not comfortable drawing, they may also make a list. NOTE: Students will conduct this same activity again at the end of this unit and the two drawings/lists will be compared to see what they might have learned based on the changes/additions that they make the second time. Be sure students write their name and the date on their work and then save them for comparative use later in the program.

Explore: Introduce the following maps from the *Student Atlas of Oregon* (produced by the Center for Geography Education in Oregon) using the PDF entitled “Maps_Student Atlas of Oregon”:

- A. Page #2 shows a general reference map of Oregon. Have students identify where they are on the map (their school site).
- B. Use Page #3 to show the students where the Oregon Coast Aquarium is located, along the coast in Newport, Oregon.

Looking at the map, ask students what they might expect to see along their drive to Newport. Then, in their journals, have students brainstorm a list of what types of similarities and differences might exist between their hometown and Newport, OR (the Oregon Coast). They should be thinking about all aspects of the two places, including such things as trees, animals, types of businesses, etc.

Explain: Ask student to share out some of their ideas on similarities and differences between these two locations. Discuss their answers.

Elaborate: Use pages #4-7 in the PDF entitled “Maps_Student Atlas of Oregon” to collectively assess geographic, demographic and historical similarities and differences between their community and the Oregon Coast (using Newport as the point of reference):

- a. Ask the students what they think the term *ecoregion* might mean. Then show page #4 and read the definition of “ecoregions.” Discuss if and how their ecoregion is different from (or the same as) the coastal ecoregion.
- b. Take some time to review the map of vegetation zones (page #5) with your students. If possible have several Oregon or Pacific Northwest plant and tree identification guides on hand so the students can see what the vegetation in these different zones look like. You may want to point out that scientists divide the Earth’s land into what are called vegetation regions or zones. These areas have distinct types of plants, soil, and weather patterns, all of which determine what types of plants will grow in a particular region. Explain that this “Vegetation Zones” map displays 10 zones with descriptions of the trees, shrubs, plants, and grasses found in each area. Then, briefly describe the different vegetation zones, particularly the coastal zone and whichever zone is the student’s home vegetation zone. Help students understand, for instance, that there are not many trees in an area that is labeled the Big Sagebrush zone. This is because the amount of rain is not enough to grow tall trees and produce a forest, yet the rainfall is enough to not form a desert. You might also want to point out why the Sitka spruce grows along the coast—because it is not affected by salt. Ask the students: *What trees and plant types might students expect to see during their drive to Newport?*
- c. Using pages #6 and #7, have the students identify the average temperature and precipitation of Newport. And, ask them what kind of clothes they should wear during your visit.

Evaluate: In their journals, have students work independently to:

- a. Describe the physical features you expect to see during the class visit to the Oregon Coast.
- b. Describe three (3) kinds of animals you might see.
- c. Identify five (5) recreational activities which can be done along the Oregon Coast.

Show the PDF “Oregon Coast Photos” and discuss their answers to the questions listed above.

Activity #5 – The Oregon Beach Bill

Overview: Oregon's beaches are a gift to its residents and anyone else who visits. From Astoria on the northern coast to Brookings in the south, Oregon's diverse coastline and beaches are among the state's most popular scenic and recreational attractions. And, thanks to a hard-fought battle by thousands of Oregonians, our 362-mile coastline is now and forever will be preserved for free and uninterrupted public use. In 1967, the Oregon Beach Bill (House Bill 1601) became landmark legislation, which established public access to Oregon's beaches from the water up to sixteen vertical feet above the low tide mark. This means that *all* Oregonians have the right to have access to and enjoy this special resource. The goal of this activity is to introduce the Beach Bill legislation and to recognize it as a tribute to Oregonians' commitment and stewardship of our natural environment. Students will also consider the role individuals should play in improving quality of life for all, as well as other laws and rules that make life better for citizens.

Time Required: 40-60 minutes (you may wish to divide this into two class periods to explore all of the materials provided below.)

Materials: projector and screen, internet access, journals

Standards Addressed:

College and Career Readiness Anchor Standards for Writing Grade 7:

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Grade 7 Writing:

7.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

Civics and Government:

6.2 Describe current forms of government and the specific roles played by citizens in countries of the Western Hemisphere.

7.1 Describe the role of citizens in governments.

7.5 Compare historical and contemporary means of changing societies and promoting the common good.

Geography:

6.13 Construct and analyze maps, graphs, charts, models, and databases to make inferences and predictions regarding geographic distributions (e.g., perceptual impacts for creating boundaries, borders, cultural regions of indigenous peoples).

7.15 Explain how the physical and human characteristics of places and regions connect to human identities and cultures.

Engage (5 mins): First, show a map of Oregon's coastline, explaining that it stretches 362 miles from the mouth of the Columbia River to the California border and extends 3 miles offshore. (Optional map source - <https://www.oregoncoast101.com/maps/>) You may also want to show one of the following drone video compilations of the Oregon coast:

- a. <https://www.youtube.com/watch?v=dmfxa2X5BOK>
- b. <https://www.youtube.com/watch?v=M-hGwtvtXCk>

Explore (10 mins): Then, ask students to close their eyes and imagine getting ready for a family trip to the beach. Maybe they pack a car with all of their favorite beach toys and supplies; maybe they get on a bus; maybe they put on sunscreen and walk to the beach. Ask them to consider how they feel: are they excited to go to the beach? What do they want to do first when they get there?

Then ask them how they would feel if when they got to the beach, there was a sign that said "Private Beach," or "No Trespassing." (If you choose you can project a visual aid, like this one: <https://c.stocksy.com/a/Xfm100/z9/425415.jpg?1570675211>) Ask students to record what their reactions to such a sign might be in their journals.

Ask students to discuss aloud as a group: *could this happen on the Oregon coast? Why or why not? Who does the Oregon coast belong to?* Tell them that they're going to explore this in small groups.

Explain (30 mins): Tell students that in 1966 on the Oregon Coast they would have seen just such a sign. Share the story of the Oregon Beach Bill by watching the following 28-minute video: <http://watch.opb.org/video/1247952802/> If time doesn't allow for this video, share and discuss the following information:

In 1966 A man named William Hay owned the Surfsand Motel in Cannon Beach, and he wanted the beach in front of his motel to be private so that only his guests could use it. He placed large driftwood logs to block off a section of the dry sand area in front of the motel, and posted private property signs all around it.

Ask students what they would do if they visited the coast in 1966 and saw one of those signs. Give them a few minutes to talk in pairs or table groups, and facilitate a whole class discussion. Would students turn around and go home? How would they feel then? Would they try to visit the beach anyway? What might happen then? Would they ask someone for help? Who?

Explain that some visitors to the beach did ask for help—they wrote to their state government. These visitors believed that it should be illegal to make the Oregon coast private property. They thought the Oregon coast should belong to all Oregonians, to everyone that lived in Oregon. The Governor of Oregon, Tom McCall, agreed and he introduced something called The Beach Bill. The Beach Bill said that the beach belonged to all Oregonians. But a lot of state legislators did not think the bill should become law—they thought hotel owners and other private businesses should be allowed to close off parts of the beach if it would help their business.

Thanks to Oregon's landmark Beach Bill, passed in 1967, that's no longer the case. This congressional bill designates that all 362 miles of Oregon's ocean shore is a state recreation area and guarantees the public's right to access all of the state's beaches. Explain that while this public beach access is now celebrated, public access was once challenged by a Cannon Beach hotel owner, and the bill almost died—until citizens brought it back to life. It turned out that public access to the beach was something the average Oregonian felt pretty strongly about, even those who never went to the beach. When a local Portland TV station urged viewers to

talk to their legislative representatives about it, more than 30,000 cards, letters and telegrams poured into Salem—this is the largest public response to any legislative issue in state history, before or since.

Elaborate (10 mins): Provide students with the following quote by the former Oregon Governor, Tom McCall: *"Heroes are not giant statues framed against a red sky. They are people who say: This is my community, and it is my responsibility to make it better."* Ask the students to consider whether or not they agree with the quote and why or why not. Then, give them 5 minutes or so to write what this quote means to them in their journals. You may also want to provide some prompts, such as: *Is it important for individual citizens to try and make Oregon a better place to live or should we leave it to the government to make the right decisions for our state and our citizens; after all, we vote them in? Who should be responsible for the welfare of Oregon's environment? Who is currently responsible for the welfare of Oregon's environment and why? Should people who live in Eastern Oregon or who do not visit the beach care about Oregon's coastline or try to make it better? Why or why not?*

Next, show students images from The Beach Book

(https://digitalcommons.wou.edu/cgi/viewcontent.cgi?article=1011&context=straub_papers). Explain that these drawings were made by first- and second-graders, and the book was sent to Oregon's state government to show the students' support for The Beach Bill.

Evaluate (5 mins): As a class, ask students to brainstorm other laws (or rules) that are made to help people have a better life (e.g., Oregon's Bottle Bill, American Disabilities Act, seatbelt or helmet laws, Clean Air Act). Discuss their thoughts and how each law or rule helps people (e.g., safety, equal access, health benefits, etc.). Then, in small groups, have students brainstorm new ideas for making Oregon better for its' citizens. Give the student groups five minutes or so to brainstorm ideas. Then, ask the groups to settle on one idea that they think should be turned into a bill and considered as a law. Give each student group 30-60 seconds each to present their ideas to the class.

Extension: If time allows, your students may also explore additional resources including: [Protecting Oregon Beaches web exhibit](#) and [Oregon Beach Bill at Oregon Encyclopedia](#).

Activity #6 – Shore Explore

Overview: Different geographic areas found at the interface of land and sea can be classified as different types of shoreline ecosystems. An ecosystem is defined as *a community and the interactions of living and nonliving things in an area*. Shoreline ecosystems have distinct organisms and characteristics that result from the unique combination of physical factors that create them, and they are among the most productive—yet threatened—ecosystems in the world. This activity introduces students to Oregon's primary types of shoreline ecosystems, specifically Estuaries, Sandy Shores, and Rocky Shores.

Estuaries: Estuaries (e.g., bays, lagoons, sloughs) are places where freshwater systems (i.e., rivers and streams) flow into the ocean, meeting and mixing with the salty seawater and becoming brackish. A wide variety of birds, fish, and other wildlife make estuaries their home.

Sandy Shores: Sandy shores—or beaches—are made up of loose deposits of sand, gravel, pebbles, cobbles, rock, or shells that cover the shoreline. This shoreline is how most people experience the ocean. Beaches serve as buffer zones that protect the coastline, sea cliffs or dunes from direct wave attack. Sandy shores are extremely dynamic environments where sand, water and air are always in

motion. As such, most of the animals found here have developed physical features and behaviors to survive; many hide under the sand as the tide drops, and emerge to feed when the tide comes in. Bivalves, like clams, feed with tubes that open above the sand, suck in water and filter out food from the water. Some worms and sea stars gather food from the surface of the sand with tentacles; whereas snails and crabs emerge from the sand when underwater to search for food. Other creatures, like birds, mammals and fish, visit the shore at different times to make the most of the supply of food which it holds.

Rocky Shores: The Oregon Coast is famous for its rocky shores—intertidal areas that are made up of large rocks and cliffs, along with pools of water and a rich collection of plants and animals. The plants and animals that live in this area experience daily tidal fluctuations and, in turn, must be able to tolerate extreme changes in temperature, salinity, moisture and wave action to survive. To deal with these challenges, many of these marine animals are covered in hard shells, have elaborate camouflage or are armed with stinging cells called nematocysts. Common rocky shore animals include mussels, barnacles, limpets, sea anemones, and sea stars, each with a different ability to avoid predation or live outside of the water. In addition, rocky-reef fishes patrol the shore in search of food, during high tides.

In this activity, students will define the term “ecosystem” and examine three different Oregon shore types. Students will view photographs of these different ecosystems and identify features of each.

Time Required: 60-90 minutes

Materials: Internet and projector, “Pictures_Estuary, Sandy, Rocky” PDF

Standards Addressed:

Next Generation Science:

LS1.C: Organization for Matter and Energy Flow in Organisms

LS2.A: Interdependent Relationships in Ecosystems

LS2.B: Cycle of Matter and Energy Transfer in Ecosystem

LS2.C: Ecosystem Dynamics, Functioning, and Resilience

LS4.D: Biodiversity and Humans

Grade 6 Reading:

6.RL.4 Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.

Grade 6 Writing:

6.RI.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

Engage (10 mins): Write the word *ecosystem* on the board. Ask students to brainstorm what the word means. (*NOTE:* The terms *ecosystem* and *habitat* are often used interchangeably. Be sure students understand that within each ecosystem, there are several habitats—specific places where a particular organism lives because the environment meets their needs.) Record their ideas on the board. Lead students to develop a class

definition of an ecosystem, which characterizes the interactions of living or *biotic* (i.e. animals, plants, bacteria) and non-living or *abiotic* (i.e. air, water, soil, and sunlight) things in an environment.

To help students develop their understanding of ecosystem characteristics, identify your school as an example of an ecosystem. Explain that a school is like an ecosystem because of the interactions between nonliving and living components. All components contribute to how the community functions and remains balanced. Then, ask the class to consider the following questions:

- *What are the living (biotic) components of our school ecosystem?* (the players of the community—teachers, students, administrators)
- *What are the non-living or abiotic factors of the school ecosystem?* (curriculum, culture, the physical location of the school)
- *What kinds of weather do we have?* (answers will vary)
- *What conditions do organisms in this ecosystem need to survive?* (air, food, water, sunlight, shelter, and the right range of temperature)
- *If our school is an ecosystem, what would our habitat be?* (our classroom)

Explore (20 mins): Explain that the coast is one of the most dynamic environments on the planet, subject to constant change: minute by minute as waves break and currents move along the shore; daily with high and low tides; monthly with tidal cycles; yearly with seasonal changes in wave approach and storm energy; and over the longer term with changes of climate and sea level. Then, show them some live beach cameras to view the ocean—in real-time—at different locations along the Oregon coast. You can find a variety of options at these websites:

- <http://www.oregonsurf.com/pages/cams.html>
- <https://www.northwestwebcams.com/oregon-web-cams.php#coastal>

Explain to students that a shoreline is the line along which the ocean (or other large body of water) meets the land. Shorelines can range from sandy to rocky, or even consist of muddy inlets. Tell students that today they are going to learn about the different parts of this ecosystem and how they work together to support life. Specifically, they will learn about the three different shoreline ecosystems which make up the majority of the Oregon Coast. Introduce the following three shoreline ecosystems and show the appropriate video as an overview for each of the shore types:

1. Estuaries – <https://oceanservice.noaa.gov/facts/estuary.html> (2 mins)
2. Sandy Shores – <https://www.youtube.com/watch?v=vRnWn-K4gk8> (2 mins)
3. Rocky Shores – https://www.youtube.com/watch?v=Y9_SkxEZyyc (5 mins)

Explain (5 mins): Using the PDF entitled “Pictures_Estuary, Sandy, Rocky” show the pictures one at a time and have students say which of the three shore types is being represented in the image. Discuss the features they see that indicate which ecosystem it is.

Elaborate (5 mins): Remind students of the galleries at Oregon Coast Aquarium that display these three ecosystems. If you’ve already visited the Aquarium, ask students to remember and share some things they saw there. If you have not yet visited, ask students what they expect or hope to see in these galleries at the Aquarium.

Evaluate (5 mins): Ask students to choose one of these ecosystems and ask them to write a description of what they think it would be like to be there, at that ecosystem. What would they see, hear, smell, feel? This writing should be something that, to them, captures and exemplifies what the sandy shore, rocky shore,

and/or estuary are. They can include drawings if they wish. Collect journals and use this assignment to evaluate student learning.

Activity #7 – Picturing What the Oregon Coast Means to Me

Overview: This activity asks students to think about what the Oregon Coast means to people, both to those who have utilized the coast throughout time, and to themselves. Students interpret historical photos to explore relationships with the beach, then compare their own experiences.

Time Required: 45-50 minutes

Materials: Chart paper; printed copies of photos from the Oregon Historical Society (below); student journals

Standards Addressed:

Geography:

6.14 Identify and describe how the physical and human characteristics of places and regions connect to human identities and cultures in the Western Hemisphere.

7.15 Explain how the physical and human characteristics of places and regions connect to human identities and cultures.

Writing:

6-7.W.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

English:

6-7.L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Speaking and Listening:

6.SL.4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

7.SL.2 Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

7.SL.5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

Engage (5 mins): Remind students that people long before them have been living on, playing on, and working on the Oregon Coast. Tell them they're going to look at some historical photos and interpret the subjects' relationships to the coast.

Explore (15-20 mins): Split students into six groups, each with their own chart paper and one of the below historical photos. Tell them to answer, as a group, the question, "*Who is in your photograph and what do you think the beach meant to them?*" They should answer this question using their observations about the picture, information from the caption, and conversations with their group. One person from each group should take

notes on their chart paper about the group's ideas and answers. They can add sketches, images, etc. to their chart paper to help illustrate their ideas if they choose.

Explain (10 mins): When students have had time to record their ideas, have students get up and go on a gallery walk to see the photographs and their classmates' ideas on the chart papers. Ask them to think about, and quietly discuss, whether they agree with others' interpretations of the photographs.

Elaborate (10 mins): Once students have returned to their seats ask them: *what are some reasons the Oregon coast might be special to the people in these photographs?* Answers might include: they get food from the coast or from the ocean; it's part of their heritage; the coast is part of how they make their living; they have fun at the beach or playing in the water; etc. Ask them to consider how, and why, those pictured may have had different or similar connections to the coast.

Evaluate (5-10 mins): Ask students to retrieve their journals and draft a written response to the question: *How does my relationship with the coast compare to those in the historical photos?* Encourage students to think about all the pictures, not just the one that they interpreted. Ask them to write about ways that their relationship might be similar to those pictured, and ways it might be different.



Titled "Rock Oyster Queen," this postcard shows a Native American woman named Annie Ditallo, gathering oysters at Newport around 1900. The sledgehammer and pry-bar were used to extract the oysters which she carried in the gathering basket on her back. Many women who lived on the Siletz reservation used traditional gathering techniques to feed their families and provide extra income selling oysters to local businesses.



www.oregoncoasthistory.org

This photograph was taken at the Yaquina Head Lighthouse between 1906 and 1908. The woman is identified only as Elma and she may have been an assistant Lighthouse Keeper. There were very few female lighthouse keepers, but at least two worked at Yaquina Head during this time.



Log Drivers, Toledo, circa 1900. Timber companies used to utilize waterways to float their timber from place to place. “Log drivers” or “river pigs” ensured that logs drifted freely by guiding and dislodging logs using peavey hooks (see photo) and sometimes dynamite. If they didn’t keep the logs moving, it could cause a partial dam, raising water levels and could also keep boats from navigating waterways. This was a very dangerous occupation and many drivers lost their lives by being crushed by the logs.



Photograph of a young woman on a bicycle talking to two young women on horseback on the beach in Cannon Beach, Oregon. Haystack Rock is in the background. This photo was taken sometime between 1936 and 1947.



This photograph was taken between approximately 1900 and 1914. It shows a group of Chinook Indians using a seine net to catch salmon. Salmon occupied a central place in the Chinook economy. As the salmon runs declined due to overfishing and habitat degradation, however, competition between white settlers and Indians for fishing sites became fierce.



Children feeding the gulls on the beach, 1920. They appear to be brothers and look dirty and poorly dressed.

Activity #8 – Culminating Project **Community Connections: A Classroom Exhibition**

Overview: For this culminating project, students will develop a method of sharing about the Oregon Coast with others. They might create a poster or make a PowerPoint presentation, design a model or make a shoebox diorama. Or, they could design a 3-panel display board or tri-fold brochure. They might even produce a video or radio spot. Let the students be as creative as they would like for their project. Ideally, you will transform your classroom into an exhibition for a public (consider inviting family and friends or other teachers and students) viewing so the students can explain their projects and answer visitors' questions. Exhibitions are a great way to showcase student work that has required them to think critically, problem solve, and revise through multiple drafts. And, when students know they will share their work with an audience beyond the classroom, they are typically more motivated to make it high-quality.

NOTE: While this is intended for students to work individually, you may prefer to have students work in groups or pairs.

Time needed: This part is up to you and how much time you have available for student projects. Ideally, students would have at least a few days to develop their projects. More elaborate projects could be achieved with a period of 2-3 weeks or more.

Teacher Preparation: Select a date and time for your classroom exhibition and share it with your intended audience. You may want to invite families, other students, colleagues, and/or community members.

Standards Addressed:

Geography: depends upon projects selected

Language Arts:

6.SL.4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

7.SL.5 Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

Reading:

CCSS.ELA-Literacy.RH.6-8.1 Cite specific textual evidence to support analysis of primary and secondary sources.

Writing:

CCSS.ELA-Literacy.WHST.6-8.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

CCSS.ELA-Literacy.WHST.6-8.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

Engage: Tell your students that they will be developing a project to display their answers to the questions: *Why is the Oregon Coast special, and why is it special to me?* Their role will be to serve as exhibit developers,

creating one display each, and ultimately, transforming the classroom into a public exhibition for families and friends or other students and teachers from the school.

Provide the mission: To help your students prepare, engage the class in a discussion about their potential work by having them reflect on what they learned from their visit(s) to the Oregon Coast Aquarium. Work together to create a list of guiding principles for what works and what doesn't when developing an exhibit or public display that communicates information. Some guiding questions for this discussion include:

- What exhibits did they like? Why?
- What do they think worked well in the exhibits that they viewed at the Aquarium?
- What do they feel didn't work well with some of the Aquarium exhibits that they saw?
- What ideas do they have for making exhibits more interesting?

Explain that as developers of a public exhibition, the students have been given a specific mission: to develop an interesting and informative display about the Oregon Coast. They can imagine that the Mayor has enlisted them in this work. Read the following statement:

The mayor requests a series of exhibits about what makes our coast so special. The goal of this public exhibition is to promote the Oregon Coast and encourage people to visit.

The exhibits can be created using any format that you chose. You might create a poster or make a PowerPoint presentation, design a model or make a shoebox diorama, or even a PowerPoint slide that could become part of a digital display. Or, you could design a 3-panel display board or tri-fold brochure. You might even produce a movie or video. You can include photos, quotations, illustrations, as well as other decorative touches. In other words, you get to be as creative as you would like for your display.

Consider the what and how: Help students explore and express what makes your coast unique by asking them to—independently or collectively—answer the following questions:

- What about the coast matters most to you?
- What do you feel people from other places considering a visit to the Oregon coast need to know about this place? How can you communicate it?
- Who are the important 'characters' or historical figures at the Oregon coast? Anyone who has a special talent, an interesting job or hobby, or an otherwise interesting life story? (*Perhaps some students will want to do a "character study"*)
- Are there any historical events that are unique to the coast? Encourage students to consider how history has played out across different areas of interest (e.g., politics, the arts, sports/recreation, business, technology, education, problems that the community came together to solve). What should members of this community today know about its history? Why?
- What is culturally special about the coast? How does it represent itself through music, visual arts, dance or film? How does the community celebrate and what does it choose to celebrate? What do people eat at their celebrations? Are there certain beliefs that shape the community? What do locals value and how do they prefer to spend their free-time?
- Are there any national or world stories in the news that have implications or connections to the Oregon Coast? (*Students might consider creating a student-anchored "news hour" video, or newspaper devoted to relevant news stories and issues*)
- In what ways is our coast connected to the rest of the globe (e.g., trade, species migrations, sister city, etc.)? Are there people in other parts of the world who are we dependent upon—or at least might be interested in—products from our community? Which ones and why? How might they promote local products to people from other countries?

Next, you will want to get students thinking about how they display what they want to share. To get them thinking about this, you can ask the following guiding questions:

- If you could take a photo of what matters most to you about the Oregon coast, what would the photo include?
- What physical objects (e.g., a historical artifact, a cool invention, an intriguing work of art, etc.) represent the coast? When was it made? Who made it? How does it reflect its time and place? What does it say about this place? (*Perhaps some students will want to create a slide show or podcast about important objects*)
- What interesting data might you gather about the Oregon coast? How can you express it in a graphic? (*Students could survey the community about something and depict the results with a graph, highlight numbers that show something special about the community, or overlay data on a map*)
- What technologies might be useful in helping to convey your story? (*Students could use digital pictures to create a digital story using [PhotoStory3](#) or [StoryMap](#). Or they might create a ‘museum kiosk—a looping video display that provides the audience with vivid visuals and text about the topic. Or, imagine a self-running informational slideshow placed beside a displayed object to share the story behind the piece. This is possible and easy using Google Slides—create a slideshow, then use the “Publish to the Web” feature to create a slideshow that auto-advances and has no need for a presenter*)

Develop and evaluate the first drafts: Have students work independently (or in small teams) to design and develop their exhibit for the exhibition. Have them brainstorm their ideas, begin preliminary research (e.g., contact your local city hall or library, reach out to parents or grandparents who have lived in the community for a long time), outline their plan and choose the materials they need, including such items as photos, artifacts, etc. that will enhance the information they want to share and/or the story they want to tell. As they build their presentations, teams will also need to consider whether the digital resources will play as a self-running slide show or if the visitor will be expected to interact with the presentation. Once they have thought out all of these aspects, student should draw a sketch of their exhibit in their journals (or on larger paper, as needed).

After the students finish their first draft, divide them into groups of four or five and within each group have each exhibitor share their vision and sketch with the rest of the group for feedback and additional ideas. Tell them to try to review each others’ work from the point of view of someone visiting the future exhibition and, if necessary, to comment on how the exhibits could be made clearer, more informative, and livelier. Have students consider revising their exhibit ideas based on the feedback, then begin work on the final product.

Share the work: Once the final exhibits are completed, have students work in groups to brainstorm ways of setting up and organizing the exhibition. Based on the exhibits that the students created, have the groups address the following questions:

- Which exhibits are similar, and how are they similar? Should they be grouped together?
- Which exhibits should be the first that viewers see? Why?
- Which exhibits should be the last that viewers see? Why?

Assign each group various tasks to complete in getting the exhibition ready for visitors. For example, some students can acquire the necessary furniture or supplies (e.g., tables or tablecloths), while other students might want to create promotional posters and directional signs. Other students may serve as curators (i.e., decide how to display the student work), while others play a role in set-up and take-down of the displays. During the exhibition, have students discuss their work and learning experience with audience members.

Instruct them on ways to be engaging and how to communicate clearly. You may even want to have students practice this with each other before the public event.

Evaluate: The next day or soon after the event, teachers should provide time for students to reflect on and debrief the experience. The following prompts can be helpful questions for students to consider:

- What were the steps in the process to create this work?
- What did you learn?
- What new skills did you develop?
- What were some challenges?
- What was your favorite part of this learning experience?

You may also want to provide the following journal prompt: *How did it feel to share about what makes our Oregon Coast special?*

Teachers can use these displays to evaluate students' ability to discern features of effective communication, in print and visual form, to gauge student competency with informative and narrative writing, and to monitor for understanding. You can also choose to evaluate groups for teamwork, responsibility, organization, and problem solving.

Final "It's Your Coast" Program Assessments:

Have students create new drawings or lists of what one might anticipate seeing while visiting the Oregon Coast. Compare this drawing/list to the ones they created in Activity #2 to assess what they might have learned based on the changes/additions that they make to the second drawing.

Teachers may also want to monitor student learning throughout this program by reviewing their individual journal entries as part of a performance-based assessment. For instance, you may *require* students to complete journal entries and use the journals as a way to record participation. Or, teachers may prefer to use the journals solely for the students to record personal reflections.