

3 - Shellfish Topics

Section 1: For the Teacher

The introduction PowerPoint will cover shellfish, ranging from their history to their vital role in the ecosystems. A few of the slides are a review from previous lessons. This would be a good time to check for understanding! Please take your time going through this PowerPoint - there is a lot of information! This will be an introduction to the six labs following this PowerPoint. On day 1, there will be three labs (watersheds, oyster exploration, and shellfish in time & place). On day 2, there will be three labs (Coast Salish people & culture, oyster exploration 2 and food web connections).

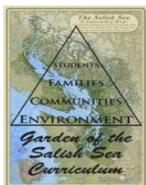
Section 2: For the Student

The introduction PowerPoint will cover shellfish, ranging from their history to their vital role in the ecosystems. A few of the slides are a review from previous lessons. There is a lot of information! This will be an introduction to the six labs following this PowerPoint. On day 1, there will be three labs (watersheds, oyster exploration, and shellfish in time & place). On day 2, there will be three labs (Coast Salish people & culture, oyster exploration 2 and food web connections).

Throughout this PowerPoint and for the rest of the unit, you will learn how intertidal ecosystems are important sources of food when healthy and clean. You will also learn that shellfish play a vital role in ecosystems. Have fun learning about your local marine ecosystem!

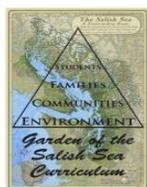
Questions

- Why are intertidal ecosystems important?
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Quick Look Lesson Chart

LESSON NAME	Shellfish Topics		
ESSENTIAL QUESTION	Why are intertidal ecosystems important?		
KEY CONCEPTS	STUDENTS WILL ALSO LEARN	SCIENCE INQUIRY	SCIENCE VOCABULARY
Intertidal ecosystems are important sources of food when healthy and clean.	Shellfish play a vital role in ecosystems.	Students will understand the importance of shellfish and their role in ecosystems.	Intertidal zone Organism Invertebrate Ecosystem Ecosystem services
	STANDARDS		ASSESSMENTS
	<u>COMMON CORE STATE STANDARDS</u> -CCSS.ELA-LITERACY.RI.5.1 -CCSS.ELA-LITERACY.W.5.2.B -CCSS.ELA-LITERACY.SL.5.1 <u>NEXT GENERATION SCIENCE STANDARDS</u> -5-ESS3-1 <u>INTEGRATED ENVIRONMENTAL AND SUSTAINABILITY</u> Standard 3		Informal - Slides 3, 5, 14 are reviews from the previous lesson (intertidal biome). These slides can be used to check for understanding. Formal - What are three things you learned about shellfish and other organisms who make their homes in the intertidal habitat? What are you looking forward to for the rest of the unit?



Lesson: Introduction to Shellfish

Guiding Question: Why are intertidal ecosystems important?

Key Concepts:

- Intertidal ecosystems are important sources of food when healthy and clean.

Standards

Common Core State Standards	CCSS.ELA-LITERACY.RI.5.1 - Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. CCSS.ELA-LITERACY.W.5.2.B - Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. CCSS.ELA-LITERACY.SL.5.1 - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
Next Generation Science Standards	5-ESS3-1- Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
Integrated Environmental and Sustainability	Standard 3: Sustainability and Civic Responsibility Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.

Setting: Inside

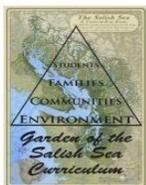
Time: 45 minutes

Materials

- "Intro PowerPoint" on GSSC website
- Whiteboard
- Computer

Vocabulary

- Intertidal zone - the area above water at low tide and under water at high tide.
- Organism - a form of life (plant, animal, fungus, plankton)



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- Invertebrate - an animal lacking a backbone
- Ecosystem - a system that includes all living things (animals, plants, organisms) in an area
- Ecosystem Service(s) – the benefits humans receive from ecosystems

Procedure

- Explain to the students that after this lesson, they will be doing six different labs.
- Open “Intro PowerPoint”
 - On slide 2, on the second click, there will be a star that will land on where your location.
 - Before you click for the second time, ask: Where are we located on the map?
 - Slides 3, 5, 14 are reviews from the previous lesson (intertidal biome)
 - Check for understanding (turn & talk, class discussion)
 - Slide 16 - Why *Garden* of the Salish Sea?
 - Discuss this question with your class. Record their answers.
 - Slides 18-23
 - Discuss the history and record any thoughts, comments, and/or questions your students have
 - Before slide 27
 - Do you think the shellfish population is in trouble? Why or why not? What threats are affecting shellfish?
 - Slide 29, 31-33
 - Relate back to the Salish Sea Stewards Challenge - is this something they, their families, and/or communities can commit to doing as a habit? Ask students which Challenge actions apply to them individually and their household?
 - Slide 34
 - This is an overview of the curriculum and these are the activities and skills the students will be learning.

Assessment

- Informal
 - Slides 3, 5, 14 are reviews from the previous lesson (intertidal biome). These slides can be used to check for understanding.
- Formal
 - What are three things you learned about shellfish and other organisms who make their homes in the intertidal habitat? What are you looking forward to for the rest of the unit?

