

# How has resource management and stewardship changed over time in the Great Bear Rainforest?

In this activity, students will learn about and research examples of stewardship in the Great Bear Rainforest. They will take what they learn and apply it to their local environment by creating their own stewardship plan.

## Learning Objectives

Students will:

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal, local, or global interest
- Critically analyze the validity of information in primary and secondary sources and evaluate the approaches used to solve problems
- Co-operatively design projects with local and/or global connections and applications
- Communicate scientific ideas and information, and perhaps a suggested course of action, for a specific purpose and audience, constructing evidence-based arguments, and using appropriate scientific language, conventions, and representations
- Identify and assess how human and environmental factors and events influence each other (interactions and associations)
- Apply First Peoples knowledge and other traditional ecological knowledge in sustaining biodiversity
- Recognize the impact of human actions on ecosystem integrity
- Define resource stewardship
- Research, identify, and describe restoration practices

# Preparing for the Activity Plan

- Familiarize yourself with the websites and videos below.

## Materials

- laptops or other devices
- access to the Internet
- Blackline Master 1: Self-Assessment

# Background Information and Resources

## Videos

### **Coastal Voices: Navigating the Return of Sea Otters** (11:04)

Coastal Voices is a diverse group of Indigenous leaders, knowledge holders, scientists, and artists from British Columbia and Alaska who are working together, discussing, and planning for the profound changes triggered by the return of sea otters.

<http://coastalvoices.net/>

### **Coastal Guardian Watchmen** (11:56)

This video explains how First Nations communities protect the Great Bear Rainforest.

<https://www.youtube.com/watch?v=TZXqStE2llc>

## Articles:

### **Clam Gardens**

This article presents information by the Clam Garden Network, which is a group of First Nations, academics, researchers, and resource managers from coastal British Columbia, Washington State, and Alaska who are interested in the cultural and ecological importance of traditional clam management practices and features, including clam gardens.

<https://clamgarden.com/>

### **Herring Fisheries**

This website speaks about the importance of herring and ways in which we can work to protect them.

<http://pacificherring.org/home>

### **Of Roe, Rights, and Reconciliation**

This article describes how commercial fisheries have affected herring populations in the Great Bear Rainforest.

<https://www.hakaimagazine.com/features/of-roe-rights-and-reconciliation/>

### **In the Kingdom of the Bears**

This article describes the Wuikinuxv relationship with bears in Rivers Inlet.

<https://www.hakaimagazine.com/features/in-the-kingdom-of-the-bears/>

### **Western Canada Marine Response Corporation**

An example of a Canadian organization working to protect our marine environments.

<http://wcmrc.com/about/our-story/>

## Delivering the Activity Plan

### Access Prior Knowledge

#### **Introduction to Stewardship**

- In small groups, have students come up with a definition for stewardship.
- Share out with the class and together, create a final definition.
- Teachers may wish to refer to the “What is Stewardship?” Activity Plan available in the Grades 7–9 resources. See the section, “Traditional Knowledge and Traditional Ecological Knowledge.”

### Experience

#### **Stewardship in the Great Bear Rainforest**

- Have students form small groups of two or three.
- Have each group choose a given example, or research their own example of stewardship (past, present, or planned) in the Great Bear Rainforest. Some examples that might be given include sea otters, clam gardens, and herring.
- Where applicable and appropriate, provide students with the resources listed above. Encourage them to continue research to find additional resources.
- Students should create a poster, short video, slideshow, etc., that explains their example of stewardship. They should include a progression describing what was done in the past up to what is currently being done, and outline what they believe should be done in the future.
- Place projects around the room and have students do a gallery walk to learn about other examples of stewardship.
- Following the gallery walk, have students reflect on whether we are doing enough to preserve the Great Bear Rainforest.

## Explore

### Stewardship in Your Local Community

- Now that your students have explored stewardship in the Great Bear Rainforest, have them reflect on stewardship in their local community.
- Using what they have learned about stewardship and some actions that have already been completed, have the students create a stewardship plan for something in their local community. Possible examples include looking at mining, forestry, tourism, agriculture, fossil fuel consumption, fresh water usage, and damming. If you are looking to cover specific content, direct students accordingly.
- Students should explain how their chosen activity is affecting the area and what plans are currently in place. They should then design a stewardship plan to properly care for the natural resource in question.

## Assess

- Have students shown an understanding of stewardship?
- Have students shown an understanding of how humans have affected ecosystems?
- Have students used scientific understanding to make a plan for the future?
- Have students complete Blackline Master 1: Self-Assessment

## Go Beyond

- Have students write a letter to the government or an environmental agency that suggests ways in which they could better care for local resources.
- Arrange a field trip “on the land” with an Indigenous Elder or knowledge keeper to discuss traditional ecological practices.

### Making Connections

Refer to the section on “Involving Local First Nations Communities” in the Science First Peoples Teacher Resource Guide (Secondary) for further information on the subject.

This resource is available on the First Nations Education Steering Committee website: <http://www.fnesc.ca/learningfirstpeoples/>

## Blackline Master 1

### Self-Assessment: Applying and Evaluating Evidence

		My Evidence
<b>First</b>	I can research information like a scientist (avoiding bias and opinion) and determine which information will be helpful for my project:	
<b>Next</b>	I can explain my thoughts about stewardship using the best points from my new knowledge.	
<b>Then</b>	I can apply my new knowledge about stewardship in the Great Bear Rainforest and apply it to create a stewardship plan for my community.	
<b>Beyond</b>		

**Blackline Master 1**  
**Self-Assessment: Communicating**

		<b>My Evidence</b>
<b>First</b>	<p>I can explain my learning to a peer.</p> <p>I can listen with intention to others explaining their learning.</p>	
<b>Next</b>	<p>I can explain my learning to a peer.</p> <p>I can listen with intention to others explaining their learning.</p>	
<b>Then</b>	<p>I can use evidence and scientific language to help communicate my stewardship plan.</p>	
<b>Beyond</b>		

**Blackline Master 1**  
**Self-Assessment: Reflecting**

		<b>My Evidence</b>
<b>First</b>	I can reflect on whether we are doing enough to protect the Great Bear Rainforest.	
<b>Next</b>	I can describe ways we can improve stewardship in my area and in the Great Bear Rainforest.	
<b>Then</b>	I can reflect on the importance of incorporating different ideas and views when creating a stewardship plan.	
<b>Beyond</b>		



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