

Lesson 10: Stewards of the Great Bear Sea

Overview: Students will reflect on their learning about the Great Bear Sea region, and consider what it means to be stewards of an area.

Subjects: Science, Art, Language Arts

Suggested Time: 5-7 classes (45-60 minutes)

Materials and Resources:

- Computer, projector and screen
- Lesson 10 Film Clips:
 - Intertidal Walk (10 mins)
 - Coastal Guardian Watchmen (12 mins)
- Teacher Background – Lesson 10
- 10.1: Watchmen and Stewardship
- 10.2: Game Criteria
- 10.3: Summative Assessment

Learning Objectives:

Students will:

1. Understand that marine planning is key to creating a sustainable future for all British Columbians.
2. Understand the value of traditional knowledge and how it contributes to culture and sustainability and planning for the future.
3. Explore the ideas of stewardship and leadership in planning for the future of marine resources and ecosystems in the Great Bear Sea.

Lesson Context

This lesson will allow students to reflect on their overall learning of some of the key themes presented in this unit and consider how to become stewards of the Great Bear Sea as well as thinking about being stewards in their own communities. Students will create a board game that highlights the collaboration to create the marine plans for the sub-regions in the Great Bear Sea. They will work to create a vision for the future through a board game that highlights various themes: the importance of the biodiversity of the Great Bear Sea, marine planning, traditional and local knowledge, collaborative science, sustainable resource management, sustainable economic development and stewardship. The students will understand that the plans are visions and the implementation of the plans are key to preserving the Great Bear Sea for future generations.

Learning Activities

Activity 1: Stewardship (45-60 minutes)

1. Ask the students what **stewardship** means to them. Record ideas on the board.
2. Watch the film clip **Intertidal Walk**.
3. Can anything be added or changed to their initial ideas about stewardship after watching the film clip? Add any new ideas to the board.
4. Review with the class how everyone can be a steward of Earth no matter where one lives. Brainstorm with the students ways to be stewards in their own communities.

Activity 2: Coastal Guardian Watchmen (45-60 minutes)

1. Watch the film clip **Coastal Guardian Watchmen**.
2. Discuss the role the Guardian Watchmen play in the Great Bear Sea. Some discussion points may include:
 - Guardian Watchmen are stewards.
 - Discuss how the Guardian Watchmen are stewards of both the land and sea.
 - Discuss how traditional and local knowledge help the Guardian Watchmen monitor and protect resources in the Great Bear Sea.
 - The role that Guardian Watchmen play in protecting traditional values and culture.
3. Use **10.1: Watchmen and Stewardship** to share with the students more about Watchmen and Stewardship in action as told by Doug Neasloss, Chief Councillor,

Kitasoo/Xai'xais Band Council & Resource Stewardship Director, Kitasoo/Xai'xais Integrated Resource Stewardship Authority.

4. Use a T-chart to brainstorm with the class threats to the Great Bear Sea and stewardship actions that are taking place in the Great Bear Sea region.
5. Inform the class that they will be making board games in small groups to represent stewardship in the Great Bear Sea. As a class, brainstorm ideas about what makes a game fun to play.

Activity 3: Designing A Board Game (45-60 minutes – 2-4 classes)

1. Divide the class into small groups and pass out the game criteria using **10.2: Game Criteria**. Review the criteria as a class and address any questions.
2. Provide the students with several classes to create the games.

Activity 4: Playing the Games (45-60 minutes)

1. Play the board games!

Extension Ideas

- Discuss how to be stewards in their own local area and how this stewardship role connects to the Great Bear Sea.
- Carry out direct stewardship actions in their local community such as a clean up, observing and checking on it, educating others about it, etc.

Assessment Ideas

- Formatively assess students' engagement in individual and group work as well as large group discussion.
- Using the game criteria, assess group games and rules.
- Summative assessment of the board game using **10.3: Summative Assessment**.

Teacher Background – Lesson 10

Everyone can be a steward of the Earth and everyone can make a difference. People live, work, visit and explore the Great Bear Sea. This ecosystem is important to many individuals for jobs and resources. Everyone can be part of the future plan to conserve the Great Bear Sea. People can conserve the Great Bear Sea by acting as stewards. Everyone can be a steward by taking care of their place by checking on it, observing it, picking up garbage, telling others about it and doing what they can. There are many little things that everyone can do to protect the Great Bear Sea no matter where you live. After all, everyone is living on one planet and all ecosystems are interconnected. There are many threats to the Great Bear Sea and marine plans are helping to conserve the Great Bear Sea for future generations.

Threats indicated in the film clip:	Others threats:	Conservation efforts:
<ul style="list-style-type: none">• Poaching• Illegal fishing practices• Trophy Hunting• High impact tourism• Climate change• Over harvesting	<ul style="list-style-type: none">• Development• Pollution• Oil Spills• Logging• Marine traffic• Etc.	<ul style="list-style-type: none">• Marine Plans• Research• Traditional Ecological Knowledge• Ecotourism• Coastal Guardian Watchmen Program• Etc.

Coastal Guardian Watchmen

First Nations Guardian Watchmen have safeguarded the health of their territorial lands and waters on BC's coast since time immemorial. Today local Guardian Watchmen monitor the health of the plants and animals that have ecological and cultural importance to their communities. They also monitor the impacts of activities such as commercial and sport fishing, logging, and tourism.

Local Guardian Watchmen programs play a critical role in successful resource management by helping to implement land and marine use agreements and ensuring rules and regulations are followed in their territories.

The Coast Guardian Watchmen Network is an initiative of the Coastal First Nations Great Bear Initiative. Their video – *Eyes and Ears on the Land and Sea* – is provided in this lesson with permission. See their website for more information:

www.coastalguardianwatchmen.ca.

Vocabulary

Stewardship: taking care and being responsible for the environment by specifically managing resources within the ecosystem.

10.1: Watchmen and Stewardship

Doug Neasloss – *Chief Councillor, Kitsoo/Xai'xais Band Council & Resource Stewardship Director, Kitsoo/Xai'xais Integrated Resource Stewardship Authority*

This is a passage from an interview with Doug Neasloss sharing about the Watchmen program and stewardship.

Watchmen

"In my department alone, we started out close to 13-14 years ago, a Watchmen program, which is a monitoring program. We don't see a lot of monitoring efforts by other groups in our territory, so my community said we need to have a presence out in the water. We need to get out there, and have our Watchmen out in the field, monitoring and patrolling the territory but also collecting data. Our watchmen are out there collecting data on crab traps, prawn traps, boat sightings, bear sightings, whale populations, etc. They are out there for about 6 or 7 months out of the year, and they have to go through a bunch of training prior to becoming a watchman to know how to use a boat. You have to have good people skills and interact with all the different groups that come into the territory. Obviously you have to know the territory fairly well, and that's something we do training for with our Watchmen. You have to learn how to use things like GPS and a radio. It's a really neat job to get out there and monitor and patrol. Having a presence out there has been huge, and so that's one of the opportunities.

We also have science programs. Our community has invested quite heavily in some of the science. Right now our Stewardship Office is involved in rock fish, sea cucumber, and bear research. This year we're going to move into frogs, marbled murrelet, northern goshawk, mountain goats, and salmon research.

We try and encourage people to get out there. We run youth programs in our community. One of our programs that we run is called the "SEAS Program" and the intent of the SEAS Program is to connect youth to the outdoors and tie them to their culture. They can see it, they can feel it, and they know what the issues are. They know what's at risk and what they have to do to get out there and protect it. It is a bit scary because you have all these different commercial groups want to come in and cut it all down or fish it all out to make some money. On top of that we're dealing with things like global warming, and temperatures are getting warmer and warmer, and it's changing the way certain species come back to certain areas. I think there's a lot we have to do to really understand what's going on. I think everyone can play a role. There's a lot of things people can get involved in to help with some of these efforts.

But again, we want to make sure that we have all the information at our disposal so that we can go there with the strongest information and make solid decisions based on the best information available. That's pretty important that we can take our traditional ecological knowledge from our Elders, but also take the best available science and go and make decisions on things."

Stewardship

"I think things are starting to change, and I just look at all the areas where species or forests have all been wiped out. I think the more people that get involved in the stewardship, learn how to take responsibility, and have respect is key. It is something that is taught in all of our songs and our dances, our culture and our stories. I think if everyone had respect, this place would be a better place for all of us. I think we need to pass on to other young people that my Elders always say to us: What we have here is not ours. It doesn't belong to us. We're holding it for the next generation. I think that when we think of it like that, we want to make sure and take care of these areas so we have something to pass on. I think that's something that's really important. Have respect. Get involved. It's the best thing they can do.

I think it's really important for as many people as possible to get involved in the conservation efforts and the protection. I think one of the biggest things is just having a connection to certain areas. Get out there and do it, and I think people can play some really important roles. I always look at universities, colleges, even high schools, and think people have the potential, the opportunity to really do some really great work to help. This work could help with the protection, the conservation of a lot of these areas. I've talked to some students at universities that will do a paper and don't really know why they're doing it. I think if they were to focus their efforts and look at certain species or look at different areas, I think there's a lot that someone can do that can help, even if they're in a remote area."

10.2: Game Criteria

Stewards of Great Bear Sea Board Game

In class we discussed what makes a game fun and exciting to play. You will create a board game in small groups that represents being a steward of the Great Bear Sea. Remember your board game must be original and creative. You must work collaboratively with your group to create the game.

You must represent all four sub-regions of the Great Bear Sea:

- Central Coast
- Haida Gwaii
- North Coast
- North Vancouver Island

You must include the following ideas:

- The biodiversity of the Great Bear Sea – the plants and animals
- First Nations – traditional and local knowledge
- Collaborative science - research
- Different perspectives of the Great Bear Sea
- Marine plans and resource management
- Threats on the Great Bear Sea
- Careers in the Great Bear Sea
- Stewardship Roles

You must also produce game rules so that others can play your game and include all of the game pieces that you create. Don't forget to give your game a title!

Name: _____

10.3: Summative Assessment

	1 Not Meeting the criteria listed below; limited or no under- standing and does not incorporate the ideas and concepts	2 Meeting the criteria listed below; has some understanding and incorporates the ideas and concepts	3 Fully meeting criteria listed below; clearly understands and in- corporates the ideas and concepts
4 sub-regions of the Great Bear Sea	1	2	3
Biodiversity in the Great Bear Sea	1	2	3
First Nations – traditional and local knowledge	1	2	3
Collaborative science	1	2	3
Different perspectives	1	2	3
Marine plans and resource management	1	2	3
Includes Threats on the Great Bear Sea	1	2	3
Represents careers	1	2	3
Includes stewardship ideas	1	2	3
Game includes rules, game pieces and is creative!	1	2	3

TOTAL: /30

Comments:
