

# Nisga'a Fisheries: Marine Conservation Youth Stewardship Lesson Plan

Title:

A British Columbia Teacher Curriculum Guide for the Theme:  
Marine Ecosystems, Habitat Protection & Conservation, and Abalone  
Species at Risk.

Lesson #1:

Introduction to the Thematic Unit Using, "The Blue Planet: Seas of Life"  
DVD (Tidal Seas - Disc 4)

\*Special Note\* - These lessons are intended to be used as a guide.  
Please add your own creative ideas, teaching strategies, and personal  
style to adapt these lessons to the needs of your local community and  
student interests.

By

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# Nisga'a Fisheries: Marine Conservation Youth Stewardship Lesson Plan

Lesson Objectives: Students will:

- Participate in the introduction of the marine conservation and stewardship theme by watching and listening to "The Blue Planet: Seas of Life (Tidal Seas – Disc 4).
- Learn about marine and ocean ecosystems, marine organisms, food chains, and marine animal physical adaptations.
- Draw marine related art and journal their reflections on pieces of blank paper in their journal booklets. They may also colour their "High Tide, Low Tide" colouring pages.
- Supplement their marine ecosystem learning by looking at ocean animal clue cards, Pacific Coast cards, 'Sea Life' felt set, and ocean books.
- Share their marine art and journal reflections with the group.

Lesson Scope and Sequence:

This lesson serves as an introductory to the theme: "Marine Ecosystems, Habitat Protection & Conservation, and Abalone Species at Risk." Whether you are a child, youth, or adult, we all have a wonderful and important role to help make this world a better place, and make this world a little greener. Like the book, "101 Ways You Can Help Save the Planet Before You're 12!" says, "No matter your age or where you live, your planet needs super you. Are you ready to answer the call?"

Our Nisga'a youth, ages 6-12 years old, in northern BC, answered the call by participating in our Nisga'a Youth Conservation Stewardship Program 2009 two week intensive summer camp. We believe that your class can answer the call too! To see an overview of the Nisga'a Youth Conservation Stewardship Program 2009 please visit <C:\Documents and Settings\Tracey\My Documents\NF Project.2009\NFAbalone2009\LGL PresentationNF Youth Outreach20 Nov.pdf>.

This thematic unit and teacher curriculum lesson guide centers on the marine and ocean environment. Thus, we creatively designed "The Seven Paddles of Our Ocean Canoe" to guide us! The seven paddles of our ocean canoe value: environmental stewardship, teamwork, self-confidence, gratitude, leadership, friendships, and taking action. Praise your youth whenever they model and practice any of these seven values:

- I care for the environment and organisms in the environment.
- I am important, and I am a part of a team.
- I am confident and self-assured.
- I practice gratefulness and thankfulness.
- I am a leader.
- I am a good friend and I enjoy friendships.
- I am a youth that takes action today and for the future!

We hope that you will use this teacher guide to provide your youth an opportunity to: form a stewardship group; protect and promote conservation of Northern Abalone and other marine species; increase level of awareness with marine environmental problems; increase knowledge (experiential and scientific) about the marine environment; nurture attitudes that foster concern for the marine environment; teach skills for dealing with environmental problems; and provide eco-action initiatives to make positive changes for themselves, family, community, environment, and resources!

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Lesson Summary: In this lesson, the students will watch "The Blue Planet: Seas of Life DVD (Tidal Seas Disc 4). They will learn about the amazing ocean and tidal seas. The students will be introduced to the concept of "Species at Risk", and that the Northern Abalone lives in the subtidal and intertidal zones off the shores of British Columbia's west coast. The abalone can be found off rocky, exposed shorelines where there is an abundance of algae.

In this award winning, "The Blue Planet: Seas of Life" DVD (Tidal Seas Disc 4), the students will see marine ecosystems and habitat, marine life, and relationships between the animals in the marine ecosystem at its finest! Herring, flounder, snails, crabs, micro fauna, kelp, bears, whales, raccoons, mussels and so much more can be found within this ecosystem.

While the students are watching the movie, they will sketch, draw, and colour in their journals and/or colouring pages. The students can keep drawing and adding more to their journal pictures throughout the whole duration of the marine theme. Supplemental resources of books, felts, ocean animal cards, and colouring pages are made available for the students to view to make the learning fun and stimulating.

\*\*\* Special Note \*\*\* - When planning this unit, allow several weeks at the beginning of the unit to send out a sponsorship letter to local companies inviting them to donate gift items, gift cards, and/ or money to your youth stewardship group. Ask your parent volunteers or mentors to phone, email, and/or visit local businesses. The sponsorship and donations were very impressive! WE discovered that the community was proud to help out! Please see the link for the letter that we sent to different businesses. (<C:\Documents and Settings\Tracey\My Documents\NF Project.2009\NFAbalone2009\extra resources\Sponsor Nisga'a Youth 11jul tb.pdf>)

In our summer camp, we used some of the gift money we received to buy prizes to give out daily to the youth. We gave out the smaller gift items to use towards our goal that every student be given a prize by the end of the two week period for best: journal, poster, artwork, person showing gratitude, role play, eco-song, etc.

We gave the larger gift items as prizes during our Marine Bingo Fundraiser Community Event (Lesson # 5). We had over \$ 2,000 of prizes to give away! For example, we gave away one grand prize of a helicopter trip for four people worth \$ 400! In addition, the four Nisga'a village governments gave money donations to our summer camp money for providing breakfast, snacks, and lunch for staff and students for the two week period!

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Subject Area(s): Environment and Sustainability Across BC's K-12 Curricula: Science, Social Studies, Language Arts, Fine Arts: Visual Arts

Grade Level: Our summer camp chose to host students 6-12 years old in age. This unit is designed for teachers to adapt the unit for elementary, middle, and high school.

Standards: See Below

BC Ministry of Education Curriculum Prescribed Learning Outcomes:

## Science:

- Demonstrate awareness of the concept of respect for the environment.
- Analyze the roles of marine organisms as a part of interconnected food webs, populations, communities, and ecosystems.
- Describe how the basic needs of marine plants and marine animals are met in their ocean environment.
- Analyze simple food chains.
- Analyze how different marine organisms adapt to their marine environment.

## Social Studies:

- Explain why sustainability is important.

## Visual Arts:

- Create images in response to objects and other ocean and marine images that they have experienced.
- Compile a collection of ideas for marine images drafted using feelings, observation, memory, and imagination.

## Language Arts:

- Developing Oral Language (Speaking and Listening) Abilities
- Developing Reading and Viewing Abilities
- Developing Writing and Representing Abilities

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**Lesson:** Welcome the students to the class and explain to them how they will be taking part of an exciting new thematic unit called, "Marine Ecosystems, Habitat Protection & Conservation, and Abalone Species at Risk!" In your own creative teaching style, introduce the students to the concepts and values that are in the "Lesson Scope and Sequence" section above. Show the students the DVD cover of "The Blue Planet", and mention to the students that they will be watching an award winning movie about tidal seas as a wonderful introduction to this new thematic unit!

Show the students the Ocean Animal Clue Cards and Pacific Coast Information Cards, and place these cards on the tables where the students are sitting. Encourage your youth to look at these cards at any time. Please visit the following link at <C:\Documents and Settings\Tracey\My Documents\NF Project.2009\NFAbalone2009\extra resources\Ocean Link Lesson # 1\Lesson Hyperlink DVD The Blue Planet Tidal Seas 011Jan10 tb.doc>.

Hold the "Abalone" marine card in your hand, and explain how abalone is a species at risk that the students will be studying. Abalone is a marine snail species that lives in the subtidal and intertidal zones off the shores of British Columbia's west coast! In this thematic unit, they will be learning how to be a protector and guardian of the abalone that was once available so abundantly, but now is scarce.

Make the "Sea Life Felt Set" available at the front of the class as a colourful visual. Hand out the photocopies of the colouring pages from "High Tide, Low Tide" to the students, and explain how these colouring pages show marine organisms that live in the tidal area of the ocean.

Build the excitement, and let your youth know that now is the time to watch the award winning Blue Planet DVD! They can get ready to become great environmental stewards of the river and ocean in their local community! They will be in wonder with all the new science facts about marine and ocean biology added to their knowledge simply from watching this DVD! This is a time for them to enjoy the movie, colour their colouring pages, and sketch in their journals.

Here are some sample questions that you may use before, during, and after watching the video:  
Before:

1. Tell us about some of your experiences at the beach. Is there anyone here that goes boating with your family?
2. What types of marine life do you think that we will see on the "Tidal Seas" DVD?
3. What do you think we will see when we go on our field trip to see the tidal area at the beach?
4. Let's watch the DVD now. You'll be amazed at the different types of marine life you'll see, the physical adaptations they have, and the predator-prey food chains that go on in the tidal pool.

During:

1. What are the whales feeding on in the Bay of Fundy tidal areas?
2. Look at how happy the sand crab is while he's making balls of sand! Why does he make all those balls of sand?
3. Check out the 'surfing snail'! What is the snail using to be able to surf? Can you give an example of what humans use to surf?

After:

This is an opportunity to discuss and debrief what the class found fun and interesting! Have the students come up to share their journals and pictures.

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## Student Assessment:

- Evaluate student answers from the focus questions the instructor asked: before, during, and after watching the DVD Disc 4: Tidal Seas.
- Students share their journal illustrations and reflections in the classroom.
- Students hand in their journals and colouring pages at the end of the day for the instructor to evaluate.

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Lesson Implementation		
Instructional Strategies	Grouping Options	Scaffolds/
Introduce the unit:	Whole group	<a href="C:\Documents and Settings\Tracey\My Documents\NF_Project.2009\NFAbalone2009\extra resources\Ocean Link Lesson # 1\Lesson Hyperlink DVD The Blue Planet Tidal Seas_011Jan10_tb.doc">C:\Documents and Settings\Tracey\My Documents\NF_Project.2009\NFAbalone2009\extra resources\Ocean Link Lesson # 1\Lesson Hyperlink DVD The Blue Planet Tidal Seas_011Jan10_tb.doc</a>
Practice:	Individual	Students practice drawing and sketching marine life and animals while watching The Blue Planet: Tidal Seas DVD.
Homework Assignment:  We chose to have the homework topic separate from this lesson topic.	Individual	Students prepare a personal bio for their community web page. Describe yourself (Name, (Tribe), Age, How you would like to help the ocean?)
Review:	Whole group and pairs	The students share their journals and discuss what they saw in the video.

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<p>Eco- Friendly Action Project:</p> <p>Get your community involved by asking them to sponsor your project with either gifts or money for the prizes.</p>	<p>Individual</p>	<p>Have fun being creative and making up your own action project that will supplement learning about the marine theme!</p> <p>For example, to support this marine theme one of our eco-friendly action projects we designed was:</p> <p><b><i>Nisga'a Fisheries &amp; Wildlife Marine Poster Contest 2009</i></b></p> <p style="text-align: center;"><a href="http://nnkn.ca/?q=node/20893">http://nnkn.ca/?q=node/20893</a></p>
<p>Application/Work time:</p>	<p>Individual</p>	<p>Students will sketch, draw, colour, and/or journal quietly while they watch the DVD video. They may continue adding on to their drawings during quiet times on other days as well.</p>
<p>Self-Evaluation and Critique:</p>		<p>For our summer camp and pilot project, we choose to show 'The Tidal Seas' video as well as a few others from 'The Blue Planet: Seas of Life' DVD disc set.</p> <p>We discovered that 'The Blue Planet' DVD's grabbed the entire student's attention, and every day they would ask us to see more videos!</p> <p>We were happily surprised that at the end of the two week summer camp the youth became experts in ocean animals! The specific marine animals that the students illustrated on their marine posters were: Alaska King Crab, Dungeness Crab, Northern Abalone, Glass Sponge Reef, Blue Whale, Killer Whale, Heart Cockle, Electric Eel, Pacific Herring, Sea Nettle Jellyfish, Opalescent Squid, Chinook Salmon, and more!</p>
<p>Accommodation Options: See Below</p>		
<p>ELL / IEP Students</p>	<p>Help the student focus by choosing a part of the DVD that they enjoyed, and have them draw this part. Example: One of our students drew the thin, silver, flashy, herring fish that formed a 'super organism' blob in the ocean as a strategy to keep predators away. This 'super organism', combined of many thin fish, all moved together at the same time in the same direction!</p>	
<p>Highly-Capable Students</p>	<p>Photocopy the Pacific Coast Information Cards and Animal Clue Cards to give to the students. Challenge the students by having them incorporate in their drawings marine organisms such as: Daisy Brittle Star, Heart Cockle, Alaska King Crab, or Abalone (Abalone is a Species at Risk).</p>	

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## Management/Organization Tips

- Preview Tidal Seas on Disc 4 "The Blue Planet: Seas of Life beforehand. Choose focus questions of your choice.
- Prepare TV player/ DVD player so that it is ready to play for students.
- Make up journal booklets by stapling a file folder on the outside with blank papers on the inside for students to draw, sketch, colour, and write any reflections from the Tidal Seas DVD movie presentation.
- Photocopy a few pages from "High Tide, Low Tide" for the students to colour.
- Hand out at each student table: pencils, erasers, pencil crayons, and felt markers for the students to use.
- Prepare beforehand one action project that can supplement this lesson.

Approximate Time Needed: Approx. twenty minutes to introduce the unit, ask questions, and show the supplemental resources. An additional sixty minutes (one hour) to watch Tidal Seas on Disc 4. Time will depend on your teaching style and teaching strategies that you use.

Prerequisite Skills: Access student prior knowledge on ocean and marine life by:

- Asking the students the focus questions before, during, and after the video presentation.
- Ask the students to share their experiences with the river and marine ecosystem in their local area.

Materials and Resources Required for Lesson:

- The Blue Planet: Seas of Life DVD (Disc 4 - Tidal Seas)
- DVD Player and TV player
- Journal Booklets made from a file folder and blank papers that are stapled together
- pencils, erasers, pencil crayons, and felt markers
- Supplemental Resources (see below).

Adopted and other Audio/Visual: none

Supplemental Resources (including Internet resources):

[C:\Documents and Settings\Tracey\My Documents\NF\\_Project.2009\NFAbalone2009\extra resources\Ocean Link Lesson # 1\Lesson Hyperlink DVD The Blue Planet Tidal Seas 011Jan10\\_tb.doc](C:\Documents and Settings\Tracey\My Documents\NF_Project.2009\NFAbalone2009\extra resources\Ocean Link Lesson # 1\Lesson Hyperlink DVD The Blue Planet Tidal Seas 011Jan10_tb.doc)

Supplies: See Materials Above

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Technology – Hardware (Click boxes of all equipment needed.)		
<input type="checkbox"/> Computer(s)	<input checked="" type="checkbox"/> VCR / TV	<input type="checkbox"/> Projection System
<input type="checkbox"/> Printer	<input type="checkbox"/> Video Camera	<input type="checkbox"/> Camera
<input type="checkbox"/> Digital Camera	<input type="checkbox"/> Scanner (optional)	<input type="checkbox"/> Video Conferencing
Technology – Software (Click boxes of all software needed.)		
<ul style="list-style-type: none"> <li>▪ See above.</li> </ul>		
Optional Technology Extensions:	<ul style="list-style-type: none"> <li>▪ On the internet, visit aquariums to view live aquatic displays from the aquarium's webcam.</li> </ul>	