



### **Salmon Inquiry Based Unit:**

#### **Teacher Information:**

-Fun Inquiry Based Learning video (theory)

<https://www.youtube.com/watch?v=QlwkerwaV2E>

-This unit was organized around inquiry and valuing the various ways of learning about Salmon. The letters listed in the Lessons Overview (instead of the numbers) are just suggestions. Depending on your grade level and students' interests, your focus during the letters will be highlighted differently. You may be encouraging your students to have inquiries more closely aligned with their grade level curriculum.

#### **Science Curriculum:**

Curricular Competencies K - 8: Questioning section, Observing, Recognizing First Peoples' stories, songs and art as ways to share knowledge; Communicating Ideas and Experiences.

#### **Content:**

K- Local First Peoples' uses of animals (Salmon)

1- Behavioural adaptations (of Salmon)

2- Salmon Life Cycle and similarities and differences of offspring and parents

3- Knowledge of local First Peoples of ecosystems - highlight stewardship

4- Biomes - aquatic and marine

5- Salmon Systems - digestive, musculoskeletal, respiratory

6- Salmon Systems - excretory, reproductive

7- Evolution changes - Survival needs, Natural selection

8- Characteristics of life for Salmon. Parasites of Salmon (Farm vs. Fresh)

Language Arts Curriculum:

-Stories, connections, communicating learning, discussions... will depend on grade level and your intentions.

	Lesson	Materials	Objective
1	<p><u>“Science” and Questions</u></p> <ol style="list-style-type: none"> <li>1. Talk to students about making good questions for inquiry. Watch the video about Inquiry Questions: <a href="https://www.youtube.com/watch?v=7j6BM002ksk">https://www.youtube.com/watch?v=7j6BM002ksk</a></li> <li>2. Show a video that you enjoy that follows someone’s inquiry question. My favourite is Why Birds Nests Aren’t Covered in Poop: <a href="https://www.youtube.com/watch?v=lG7OmThrq5g">https://www.youtube.com/watch?v=lG7OmThrq5g</a></li> <li>3. Tell students that they will be learning about Salmon. Show a photo of salmon. Maybe scroll through this website with the various Pacific Salmon Types <a href="https://pacificwild.org/pacific-salmon-species-spotlight/">https://pacificwild.org/pacific-salmon-species-spotlight/</a> Give students time to write their inquiry questions. If you would like them to stick to the curricular content areas, encourage them in that direction.</li> <li>4. After 10 minutes of recording questions in their Inquiry Journals. Inquiry Journals are a way they can record their questions and their learnings. Encourage drawings, webbing, journaling, diagrams, cut-outs of printed material... Have students talk in small groups. Not to answer one another’s question, but instead to maybe encourage more/deeper questions.</li> </ol>	<p>-Way to show the video -Inquiry Journals (could be an exercise book, could be paper in a duotang)</p>	<p>I can make deep questions about Salmon.</p>
A	<p><u>Learning through observation</u></p> <ol style="list-style-type: none"> <li>1. Ideally find a local stream to go to during times that salmon travel along the stream, but you could do it any time of year.</li> <li>2. Print out page 10 from this resource: <a href="https://blscs.org/salmon/Downloads/SalmonWILD_LowRes.pdf">https://blscs.org/salmon/Downloads/SalmonWILD_LowRes.pdf</a> when you go to the stream. Have the students be Science Investigators by assessing the health of the stream.</li> <li>3. When students return to the classroom, have them put their stream assessment in their</li> </ol>	<p>-Page 10 printed from website copied per student -Inquiry Journals -Camera to take a photo for them (they may like to use it on their Salmon</p>	<p>I can make observations in my local environment.</p>

	Inquiry Journal and write a reflection on the health of the stream. What might be impacting salmon habitats? Do they have any questions to add to their question sheet? Do they feel there is a way to help the salmon environment?	Board)	
B	<p><u>Learning through video</u></p> <ol style="list-style-type: none"> <li>Encourage students to write notes or draw images in their Inquiry journals during the videos.</li> <li>Show the following short videos <ol style="list-style-type: none"> <li>Salmon soaring upstream: <a href="https://www.youtube.com/watch?v=j5pTnejk4s4">https://www.youtube.com/watch?v=j5pTnejk4s4</a></li> <li>Salmon ladders: <a href="https://www.youtube.com/watch?v=sabk7Khhq0kQ">https://www.youtube.com/watch?v=sabk7Khhq0kQ</a></li> <li>Salmon Life Cycle fun song: <a href="https://www.youtube.com/watch?v=qV30UZ9aF04">https://www.youtube.com/watch?v=qV30UZ9aF04</a></li> </ol> </li> <li>Go around the room asking what the significant learning was</li> </ol>	-Ways to show the videos -Salmon Inquiry Journals	I can make questions and connections to what I observe.
C	<p><u>Learning through demonstration</u></p> <ol style="list-style-type: none"> <li>Invite someone into your class with Salmon. Could this be an elder or community member that smokes salmon? Could this be a local fisherman about how they fish for salmon? Could this be a local cook who enjoys cooking salmon? Could this be an environmentalist who counts salmon? Could you have a salmon in your class that you cut up and show the parts of the salmon (like a dissection) but please remember to bring the unused salmon pieces back to the stream. Here's a training video if you would like to learn how: <a href="https://www.youtube.com/watch?v=4u864TQJ92w">https://www.youtube.com/watch?v=4u864TQJ92w</a></li> <li>You could also just show this video with salmon dissection: <a href="https://www.youtube.com/watch?v=yokbGE9A5oY">https://www.youtube.com/watch?v=yokbGE9A5oY</a></li> <li>Have students record their sequential understanding and questions in their Inquiry Journals. Maybe they could sketch steps as a comic.</li> </ol>	-A demonstration -A gift or honorarium for the presenter if you have one (a nice card signed by your students?) -Inquiry Journals	I can communicate my understanding after observing a demonstration.

<p>D</p>	<p><u>Learning through story</u></p> <ol style="list-style-type: none"> <li>1. Have students sitting around in a circle. Tell the students that today we are learning through story. Learning through story is a respectful traditional way to learn. Introduce Teresa Michell. Introduce where the story is from (HERE!!). Tell the students about the first time you heard the story.</li> <li>2. Read (or better yet, tell by heart) the story about <u>How the Coho Got His Hooked Nose</u>.</li> <li>3. Go around the circle with a talking piece and ask the students what they got out of the story.</li> <li>4. Focus students on their grade level content. How does this story explain and show our curricular content. Orally discuss this and then invite students to record in their Inquiry Journals.</li> </ol> <ol style="list-style-type: none"> <li>1. An additional beautiful Learning Through Story opportunity that is also good <a href="https://www.youtube.com/watch?v=g2FTrPUpXNQ&amp;t=15s">https://www.youtube.com/watch?v=g2FTrPUpXNQ&amp;t=15s</a></li> <li>2. Follow the same protocol above</li> </ol>	<p>-<u>How the Coho Got His Hooked Nose</u>- Teresa Michell -Classroom set up - Talking piece -Inquiry Journals</p> <p>-A way to show the video -Inquiry Journals -Talking Piece</p>	<p>I can learn about Salmon through story.</p>
<p>E</p>	<p><u>Learning through traditions and ceremony</u></p> <ol style="list-style-type: none"> <li>1. Show Sto:lo Moons Slide Show from Abby Schools at <a href="https://indigenous.abbyschools.ca/Halg%27emeylem/Seasons-of-the-moon">https://indigenous.abbyschools.ca/Halg%27emeylem/Seasons-of-the-moon</a> (slideshow is a link at the bottom of the page).</li> <li>2. Ask students what comes up is highlighted or focused on at various times of the year (Salmon).</li> <li>3. Discuss the importance of Salmon with Sto:lo People. <ol style="list-style-type: none"> <li>a. First Salmon Ceremony (Honouring the first salmon that has come home through traditional ceremony) <a href="https://www.youtube.com/watch?v=D2wfyhi3p8g&amp;t=38s">https://www.youtube.com/watch?v=D2wfyhi3p8g&amp;t=38s</a></li> <li>b. Sto:lo Salmon Song <a href="https://www.youtube.com/watch?v=zTt0gtwOzKE">https://www.youtube.com/watch?v=zTt0gtwOzKE</a></li> <li>c. Traditional Fishing Practices from <u>Upper Sto:lo Fraser Valley Fishing book</u></li> </ol> </li> </ol>	<p>-Way to show slideshow and videos -Personal understanding of the importance of Salmon with the Sto:lo People (please reach out if you need deeper understanding here) -Upper Sto:lo Fraser Valley Fishing book order from Sto:lo gift shop here - <a href="https://www.stologiftshop.com/upper-stolo-">https://www.stologiftshop.com/upper-stolo-</a></p>	<p>I can learn with an open mind and inquire deeply.</p>

	<p>4. Have students record in the Inquiry Journals about their understandings and connections.</p>	<p><a href="http://fraser-valley-fishing.html">fraser-valley-fishing.html</a> -Inquiry Journals</p>	
F	<p><u>Learning through articles</u></p> <ol style="list-style-type: none"> <li>1. Print off or have students access the wonderful online resource at <a href="https://blscs.org/salmon/Downloads/Salmon_WILD_LowRes.pdf">https://blscs.org/salmon/Downloads/Salmon_WILD_LowRes.pdf</a></li> <li>2. Break students into 7 groups. Assign each group one of the following sections: <ol style="list-style-type: none"> <li>a. Adam's River Map</li> <li>b. The Big Question</li> <li>c. Salmon Watching</li> <li>d. The Circle of Life</li> <li>e. Salmon are Sacred</li> <li>f. Home Stream Home</li> <li>g. Questions</li> </ol> </li> <li>3. Groups read their assigned section and collectively agree what they feel is important other students should know.</li> <li>4. Re-create groups so that each group has people from 1-7 in their group. Each student shares the important part that they have highlighted to their new group (jigsaw).</li> <li>5. Reflect about their learning in their Inquiry Journals (maybe they would like to glue some information from the worksheet that they had).</li> </ol> <p>***Alternately (or in addition to) you could break up the book: Traditional Fishing Practices from <u>Upper Sto:lo Fraser Valley Fishing</u> with specific fishing tools or methods***</p>	<p>-Printed out articles for students -Inquiry Journals -<u>Upper Sto:lo Fraser Valley Fishing</u> book order from Sto:lo gift shop here - <a href="https://www.stologiftshop.com/upper-stolo-fraser-valley-fishing.html">https://www.stologiftshop.com/upper-stolo-fraser-valley-fishing.html</a></p>	<p>I can extract information and share it with others</p>
G	<p><u>Learning through experience</u></p> <ol style="list-style-type: none"> <li>1. Are there ways that students can experience an aspect of salmon? Learning how to smoke salmon? Learning how to fish salmon? Going to the river when salmon are active? Raising salmon eggs in your classroom? Going to a local Salmon hatchery?</li> <li>2. Have students continue recording questions and observations in their Inquiry Journals.</li> </ol>	<p>-Inquiry Journals</p>	<p>I can make observations about the world around me.</p>
H	<p><u>Learning through Art</u></p> <ol style="list-style-type: none"> <li>1. Following page 8 from the online resource: <a href="https://blscs.org/salmon/Downloads/Salmon_WILD_LowRes.pdf">https://blscs.org/salmon/Downloads/Salmon_WILD_LowRes.pdf</a></li> <li>2. Have 2 art areas set up in the classroom for</li> </ol>	<p>-Art materials listed in the online resource -2</p>	

	<p>students to make a choice in what type of art they would like to create. Introduce the two styles to students so they can make the choice.</p> <ol style="list-style-type: none"> <li>3. Give time for students to create.</li> <li>4. Store this art somewhere for students. They will likely want to include this art piece on their Salmon Board. Have students record what they learned and wonder about in their Inquiry Journals.</li> </ol>	<p>workstations -Inquiry Journals</p>	
2	<p><u>Introducing Salmon Fair</u></p> <ol style="list-style-type: none"> <li>1. Students create a “Salmon Board” like a Science Fair Project. Their board should follow their personal inquiries about Salmon. Create criteria as a class. What sections need to be included? To make it easier I printed the pages below to make it easier to add to their board. Our sections were: <ol style="list-style-type: none"> <li>a. Questions (at least 3... where did they take you?)</li> <li>b. Labelled diagram</li> <li>c. Grade level curriculum connection</li> <li>d. Ways I learned (I think this is very important in valuing that learning about Science comes in many different ways)</li> <li>e. 3D component/model</li> <li>f. Ways I can become involved with Salmon (What can I do?)</li> </ol> </li> <li>2. Students will need several lessons to work on their boards. Having plasticine, popsicle sticks, construction paper, pipecleaner, etc. available will be helpful.</li> </ol>	<p>-Science Boards -Inquiry Journals -A way to record criteria the class comes up with</p>	<p>I can communicate my learning through visuals and writing.</p>
3	<p><u>Exploring Salmon Fair</u></p> <ol style="list-style-type: none"> <li>1. Students set up their Salmon Boards and displays. Send half the class around to walk around and listen to students that remain at their boards and share information from their learning. Then switch the groups.</li> <li>2. Invite others to come through your fair. Admin? A younger class? Families?</li> <li>3. Serve smoked salmon or find a way to celebrate the learning together.</li> </ol>	<p>-Classroom set-up to have displayed boards around.</p>	<p>I can share my learning proudly with others.</p>

Sad!

moon



# Questions:

My first question:

Led me to...

I learned...

My second question:

Led me to...

I learned...

My third question:

Led me to...

I learned...

Labelled

Diagram:

My goals for

action:

Ways I

learned:

A video that was important...

A demonstration...

A story...

An article...

An experience...

A discussion...

Grade level  
curriculum: