



Date: \_\_\_\_\_

## Salmon Life Cycles

### ACKNOWLEDGEMENT

*Please read this Acknowledgement before the start of this lesson to respect the knowledge that is being shared and the Land of the People where the knowledge originates.:*

I would like to acknowledge the traditional, ancestral, unceded territory of the Stó:lō people on which we are learning, working and playing. I give thanks to our elders and knowledge keepers for passing down their knowledge and sharing it with our future generations. Ch'í:thóletsel - I thank you (all).

### LEARNING OUTCOMES

*Upon successful completion of this lesson plan, students will be able to:*

1. Explain and classify the non-metamorphic life cycle of a salmon.
2. Describe a salmon's journey from the Fraser River, to the ocean and back again.
3. Identify types of salmon in English and Halq'émeylem.

### LIST OF ACTIVITIES

1. Salmon Life Cycle

### MATERIALS

- Book: From the Mountains to the Sea: We Are a Community
- Supplies: Post-it notes and pencils
- Stó:lō Seasonal Chart
- Salmon Life Cycle
- Types of Salmon - poster1
- Types of Salmon - poster2
- Salmon Life Cycles - Halq'émeylem Vocabulary
- Blank Worksheet-Salmon Life Cycle



Science

#### Origin

Sq'éwqel, Seabird Island,  
located on the traditional  
territory of the Stó:lō peoples.  
Agassiz  
British Columbia

Learning Level / Grade

2



45 mins

Related Subjects

Social Studies

## DESCRIPTION

This lesson plan introduces students to the salmon life cycle and Halq'émeylem vocabulary associated with it as well as the seasonal activities of the Stó:lō people.

## HOLISM AND ALL OUR RELATIONS

*This lesson plan has been developed with an Indigenous lens that is holistic in nature, a way of being and knowing that acknowledges our relationships with 'all our relations', including plants and animals, other human beings, the water, land, wind, sun, moon, stars, and more - everything seen and unseen. With 'all our relations' in mind, this lesson plan has been developed with a focus on:*

- Language and Culture
- Participatory and experiential learning activities
- Intergenerational learning with Elders/Knowledge Holders
- Relationship with family, ancestors
- Different learning styles; attention given to mind, body, and spirit
- Connections are made with everyday life
- Nurturing healthy relationships in school and community
- Ethics in the classroom: care, truthfulness and trust, respect, integrity
- Healthy relationship with self and identity
- Relationship with the land
- Personal reflection time (connecting with thoughts and feelings)

## TEACHERS' GUIDE

### Background/Foundational Information

- The educator needs to have some background knowledge of the Coast Salish people. The Stó:lō people specifically—where they lived, what they ate and what they did throughout the year to prepare for winter. This will help the educator understand how the seasonal chart works. It is also recommended for the educator to research the correct sounds for the Halq'émeylem vocabulary in the text.

## ACTIVITIES

## 1 - Salmon Life Cycle

**Purpose**

This part of the activity is to highlight the non-metamorphic changes a salmon goes through as it grows from egg to adult as well as how a salmon travels from the river to the ocean and back in its lifetime.

Students will also be introduced to the Halq'eméylem language using salmon focused vocabulary.

**Time:** 45 mins

**Activity Instructions**Introduction

Read Aloud: *From the Mountains to the Sea: We Are a Community*

- This book is a Coast Salish First Nations example of life cycles and connections to the land. Keep that in mind when reading the story.
  - Prepare for questions about Coast Salish people, connections to the land, and why it's important to know.
- "What do you think the story was trying to say?" Turn and talk.
- "Why do you think the story focuses on salmon in particular?" Turn and talk.
  - Listen for uses as food, when and how they were caught (ties into the seasonal chart)
  - Encourage discussion if students decide to explore their own thoughts about the story.

Activities

- Post a picture of the salmon life cycle on the board and hand out 'Post-it' notes and pencils
  - "This is the same picture as in the book we just read. Do you notice anything about how a salmon grows?"
  - "Write down a question you have about the salmon cycle on the Post-it. We will review as many as we can today. If we can't get to some, we will do more tomorrow."
  - "Would anyone like to share their question now?" Signal handraising.
  - Prepare for discussions of:
    - The differences and similarities as salmon grow
    - Non-metamorphic life cycles
    - Where salmon go to spawn
    - Where salmon go in the ocean (have BC coast map ready for this)
    - How long salmon leave before returning to the rivers
    - Different types of salmon
    - Introduce Halq'eméylem vocabulary
- Introduce Stó:lō Seasonal Chart
  - Stó:lō means river. The Stó:lō people are the "People of the River"
  - Look at when fishing was done
  - Consider why the Stó:lō year was done according to animal cycles (salmon specifically). Discuss:
    - Which times of year each salmon returned (in relation to the name of the month/season)
    - Connections between humans and salmon in the past and present
- Split students into groups. Ask them to draw their own life cycle of a salmon using what they learned today. Have copies of a fill-in-the-blank life cycle sheet they can colour available as an option, but drawing is encouraged.
  - Prepare for students to inquire about Halq'eméylem words. The list in the attachment can be used to adapt the lesson.

Closing

- Students share their cycles in their small groups.
- Students will bring their cycles home to share with their family.

**Additional Background Information for this Activity**

Depending on where the educator who teaches this lesson is located, an Elder, Knowledge

Holder or knowledgeable and respected community member can use this lesson to compare to their own traditional methods of food gathering. Do they have salmon? If not, what kind of traditional food source is available? What is the local language vocabulary the students can use for this food source?

**This activity is designed to connect with learners with these learning styles...**

- Spiritual (e.g., Relational) Learners
- Physical (e.g., Tactile, Experiential, Visual) Learners
- Intellectual (e.g., Rational, Logical) Learners
- Emotional (e.g., Feeling, Intuitive) Learners

**... in the following ways:**

#### Spiritual

- Salmon has always played a vital role in Stó:lō culture, sustenance and livelihoods. It has been used ceremonially and continues to provide for a number of families in the Fraser valley. Recently, there has been a major decline in numbers of salmon and the farmed salmon industry has led to the transfer of many diseases to our wild salmon. Many of our students learn about salmon harvesting through traditional teaching relationships.

#### Emotional

- Students will become increasingly aware of the ways in which their thoughts and actions impact the well-being of salmon. This consideration requires students to be self-aware and, in turn, have to focus on the alignment of their behaviours and values. Local agriculture and forestry is undoubtedly having a negative impact on the salmon life cycle and students will become increasingly aware of this.

#### Physical

- As an extension of this activity, students will be able to go to the Weaver Creek Spawning Channel which is located between Mission and Agassiz on Stó:lō territory. Though the creek is manmade it provides an awesome opportunity for youth to see the spawning habitat of various salmon species that naturally deposit their eggs.






#### Intellectual

- There are many facts that students will have to retain in regards to the salmon life cycle. This includes average weight of different salmon species, where they are located geographically, health benefits, as well as salmon spawning routes and distances.

#### Materials

*Click the 'Link' to open and view videos.*

*To open and print files, please go to the 'files' folder accompanying this downloaded lesson plan.*

Resource Title	Type
<b>Book: From the Mountains to the Sea: We Are a Community</b>	Supplies 
Check your library for this book by Brenda Boreham and Terri Mack	
<b>Supplies: Post-it notes and pencils</b>	Supplies 
<b>Stó:lō Seasonal Chart</b>	File (Stolo seasonal chart.pdf) 
<b>Salmon Life Cycle</b>	File (Salmon Life Cycle.pdf) 
<b>Types of Salmon - poster1</b>	File (Types of Salmon Poster1.pdf) 

Resource Title	Type
<b>Types of Salmon - poster2</b>	File (Types of Salmon Poster2.pdf) 📄
<b>Salmon Life Cycles - Halq'eméylem Vocabulary</b>	File (Salmon Life Cycles Halqemeylem Terms.docx) 📄
<b>Blank Worksheet-Salmon Life Cycle</b>	File (blank worksheet-salmon life cycle.docx) 📄

**TEACHING NOTES** 

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## ASSESSMENT



*This section contains information for assessing progress in students' learning. While Indigenous approaches to assessment may be highlighted, conventional assessment methods may also be discussed.*

Assessing student knowledge can be verbal for this lesson. The students can talk about their salmon lifecycle sheet, the language they have been introduced to and/or the effects of humans on salmon. The educator can ask the students questions as they work or after to determine their understanding of the concept.

## ADDITIONAL RESOURCES

*Click the 'Link' to open and view videos.*

*To open and print files, please go to the 'files' folder accompanying this downloaded lesson plan.*

Resource Title	Type
<b>First Voices Website</b>	<a href="#">Link</a> 
The website offers help with the pronunciation of sounds for the Halq'eméylem vocabulary.	
<b>Pacific Salmon Foundation</b>	<a href="#">Link</a> 
This website can be accessed for extra information about salmon.	

## HOLISM AND ALL OUR RELATIONS

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<b>Relationship with the land</b>
The educator could take the students on a short trip to the Fraser River or Maria Slough for the discussion of where the salmon start and where they travel to as they age. This can be done at a local creek or show the students on Google Earth.
<b>Participatory and experiential learning activities</b>
<b>Language and Culture</b>
The students will be introduced to salmon specific vocabulary of the Halq'eméylem language.
<b>Relationship with family, ancestors</b>
Students are encouraged to take their learning home to share with their family. This can be an extended activity for some students as some students may come from a family who fishes.
<b>Connections are made with everyday life</b>
Engage students in discussion about how their traditional food source could be affected from not taking care of the land.
<b>Intergenerational learning with Elders/Knowledge Holders</b>
Were Elders or Knowledge Holders involved in the development of this Lesson Plan? Yes Can Elders or Knowledge Holders be invited to help teach part of this lesson plan? Yes
<b>Intergenerational learning with Elders/Knowledge Holders</b>
<b>Ethics in the classroom: care, truthfulness and trust, respect, integrity</b>

The educator can talk about the importance of why we need to take care of and respect our water sources. Living things need water to live and if we poison our water, we lose our food sources.

**Different learning styles; attention given to mind, body, and spirit**

**Healthy relationship with self and identity**

Through this discussion, the students can relate the topic to their local food sources and how their lifestyle could be affected if they lost this food source. If their main traditional food source is not salmon like the Stó:lō people, then the educator would use a food source the students are familiar with.

**Personal reflection time (connecting with thoughts and feelings)**

It is important to engage the students in an open discussion about the topic. How would it feel if we lose one of our food sources? The educator can encourage inquiry during this reflection. The students can write about it or provide the educator with a verbal answer. This can also be done in groups as an extension. The educator can provide the students with a specific problem and, in groups, the students can come up with a solution and why they need to have a solution.

## OTHER DETAILS

## CONTRIBUTORS

Name	Role/Job Title	Place
Jason Bruce	Research Lead	Chilliwack
Karla Kay	Research Assistant	Seabird Island

## QUESTIONS/MORE DETAILS

For Questions contact: [Jason Bruce \(jasonbruce@trentu.ca\)](mailto:jasonbruce@trentu.ca) for more information.