

Bachelor of Education (Elementary) & Bachelor of Education (Secondary) STEM Lesson Plan

Lesson # 5 of 5 Date: Dec 1, 2023

Lesson Title: Land Formations: Secwepemcúlecw

Name: Krystal Devick Subject: Science/socials Grade(s): 7

Rationale:

This lesson is important because students will see how western scientific method and Indigenous knowledge corroborate one another. Students will understand how two seemingly contradictory perceptions can actually be complimentary, despite viewing through different lenses.

Core Competencies:

Communication	Thinking	Personal & Social
<p>Collaborating:</p> <p>I can connect my group with other groups and broader networks for various purposes.</p> <p>I can step outside of my comfort zone to develop working relationships with unfamiliar groups. I develop and coordinate networking partnerships beyond and in service of the group. I demonstrate my commitment to the group’s purpose by taking on different roles as needed. I acknowledge different perspectives and seek out and create space for missing or marginalized voices. I summarize key themes to identify commonalities and focus on deepening or transforming our collective thinking and actions. I recognize when wisdom and strategies from others are needed and access these to address complex goals. I help create connections with other groups or networks to further our common goals and our impact.</p>	<p>Critical Thinking and Reflective Thinking:</p> <p>I can examine evidence from various perspectives to analyze and make well-supported judgments about and interpretations of complex issues.</p> <p>I can determine my own framework and criteria for tasks that involve critical thinking. I can compile evidence and draw reasoned conclusions. I consider perspectives that do not fit with my understandings. I am open-minded and patient, taking the time to explore, discover, and understand. I make choices that will help me create my intended impact on an audience or situation. I can place my work and that of others in a broader context. I can connect the results of my inquiries and analyses with action. I can articulate a keen awareness of my strengths, my aspirations and how my experiences and contexts affect my frameworks and criteria. I can offer detailed analysis, using specific terminology, of my progress, work, and goals.</p>	

Big Ideas (Understand)

Earth and its climate have changed over geological time.

Learning Standards

(DO)	(KNOW)
Learning Standards - Curricular Competencies Experience and interpret the local environment Apply First Peoples perspectives and knowledge, other ways of knowing, and local knowledge as sources of information	Learning Standards - Content Evidence of climate change over geological time and the recent impacts of humans: physical records local First Peoples knowledge of climate change [oral history, change in traditional practice (e.g., the timing of harvest has been impacted by climate change), etc.]

Instructional Objectives & Assessment

Instructional Objectives (students will be able to...)	Assessment
<ul style="list-style-type: none"> Attribute value to multiple sources of knowledge (Indigenous, scientific, local, regional) and how understand how they compliment each other (interconnectedness). Understand an element of local land formation. 	<ul style="list-style-type: none"> <i>Product</i>: reflection journal making observations, sketches, notes, connections <i>Observe</i>: students are active listeners when material is introduced. They behave in respectful manners. They engage during the field trip and pay attention to their surroundings. <i>Discuss</i>: group discussion where students have the opportunity to share any of their reflections and connections they made throughout the unit.

Prerequisite Concepts and Skills:

Listening with respect to oral presentations. Writing in sentence format or note taking or sketching. Being able to orally share reflections/thoughts.

Indigenous Connections/ First Peoples Principles of Learning:

Learning is embedded in memory, history, and story.

“In First Peoples’ cultures, knowledge was traditionally kept in oral tradition. The oral tradition, still highly valued today, includes oral narratives (or stories) that are used to teach skills, transmit cultural values, convey news, record family and **community histories, and explain the natural world**. In addition to expressing spiritual and emotional truths (through symbol and metaphor), **specific stories also provides a record of literal truths (regarding events and/or situations) as narratives were passed unchanged from generation to generation.**” – (© Jo-Anne L. Chrona, 2016 Wordpress).

Universal Design for Learning (UDL):

Every student will be able to listen to and watch the hook slideshow; retention of content will vary student to student.
 The variety of journalling options available to students is to ensure each student can showcase their learning and connections.
 Wheelchair access will be considered prior to the field trip to ensure every student can participate.

Differentiate Instruction (DI):

DI will be student specific when possible.

ASD – students may be easily flustered and have difficulty following instructions. Journal prompts will be provided in writing to student for repeated reference. Oral exit ticket option is available instead of written journal.

ELL – students can work with their iPad translator.

ADHD – students who may have difficulty staying focused will be redirected to apply their attention to the task, helping them to remain focused/motivated. Oral exit ticket option is available instead of written journal.

Wheelchair accessibility for transportation and on-site observation time must be arranged if there is a student requiring a wheelchair in the class.

Materials and Resources

Hook – Slideshow

Students and teachers have appropriate outdoor clothes/footwear.

Student journal and pen or pencil.

Snacks, lunch and water.

First aid kit, whistle, cell phone, emergency preparedness plan including muster point.

Bus and driver.

Secwépemc People, Land, and Laws Yeri7 re Stsq'ey's-kucw, By Marianne Ignace and Ronald E Ignace Foreword by Bonnie Leonard – Chapter 2 Le Q'7es te Tellqel'mu'cw | The Time of the Ancient Transformers from the bottom of pg. 34 to pg. 38 two thirds down.

Teacher references: https://docs2.cer-rec.gc.ca/ll-eng/llisapi.dll/fetch/2000/90464/90552/548311/956726/2392873/3614457/3615225/3635142/3718931/A96444-7_Appendix_3_-_Late_Glacial_Lakes_of_the_Thompson_Basin_-_A6

<https://www.semanticscholar.org/paper/Late-glacial-lakes-in-the-Thompson-Basin%2C-British-Johnsen-Brennand/3a81a70f117b4449158ceac63d15b9d47bac4484>

Lesson Activities:

Teacher Activities	Student Activities	Time
Introduction (anticipatory set – “HOOK”): Slideshow of glacial lake, local geography images (examples below). Provide a brief recap of previous lessons on regional land formations, local land formations, glacial lakes, river flow reversal, salmon significance.	Observe and listen to slideshow and accompanying dialogue.	5

<p>CFU – thumbs up - does everyone understand what a glacial lake and a land formation are? Who can define what a salmon run is? Can anyone think of a good source of information about local history?</p>	<p>Thumbs up or down response. Participate in CFU discussion (listening or speaking bot acceptable forms of participation)</p>	<p>3</p>
<p>Body:</p> <p>Read pg. 34-38 about scientific evidence and oral histories describing the great flood.</p> <p>Bus to Deadman’s Creek Mouth (near Savona).</p> <p>Teacher will point out geological features identified earlier in the class. Teacher will then provide the prompts below, ask students to pull out their journals and reflect on:</p> <ul style="list-style-type: none"> • geological evidence visible • the significance of story of Coyote releasing the Salmon • how students today are connected to the land and how others may be connected to the same place differently and why <p>Teacher will state journals can include observations, sketches, point form notes, descriptions, feelings, or other formats justifiable by student as relevant to their learning. CFU – does anyone have any questions about what they should be doing?</p> <p>Teacher moves around observing student behavior and focus on the intended task.</p> <p>Bus to school.</p>	<p>Listen.</p> <p>Sing the Wheels on the Bus.</p> <p>Listen to instructions.</p> <p>Students answer if they need clarification.</p> <p>See. Understand. Journal reflections and connections. Explore. Connect.</p> <p>Ride back.</p>	<p>20</p> <p>40</p> <p>5</p> <p>2</p> <p>30</p> <p>40</p>
<p>Closure:</p> <p>Teacher-led discussion to check for learning: Have the rivers flowing through Tkemlups always flowed the same direction? How do you know this? Can anyone tell me what was in this area 10,000 years ago? What drastic event forever altered this environment and the ecosystems? How has this affected local culture? Shift into more spontaneous student-led discussion.</p>	<p>Participate in discussion. Students will bring their journals and circle their chairs and each have a turn discussing something they learned. Learning connections multiple perspectives are valuable to our knowledge and learning.</p>	<p>20</p>

Organizational Strategies:

Have a whistle handy for outside as a recall.

Heavy frontloading on rules around approaching the river (don't go within 5-10 feet so as no one gets wet/muddy depending on flow and season).

Reminder of what respect looks like of other people's perspectives. Reminder of good listening skills.

Proactive, Positive Classroom Learning Environment Strategies:

Expectations are clearly stated at the start of the lesson regarding student behavior around respectful learning, especially regarding other cultural groups. If behaviour is not meeting expectations, attention will be brought back with clap pattern (or whistle if outside) if necessary for a reminder of what they are expected to be doing and not doing.

Extensions:

Lesson 1: Regional land formations including glacial lakes and major events (science).

Lesson 2: Local land formations (science).

Lesson 3: Salmon lifecycle, ecosystem impact/keystone species (science).

Lesson 4: Secwepemc history in the area, highlight salmon importance in community, preferably with a guest speaker from Tk'emlúps te Secwépemc or AEW to lead/assist lesson (socials).

Lesson 5: Field trip and journalling lesson described above (cross-curricular convergence).

Reflections (if necessary, continue on separate sheet):

DNC