

Cross-Curricular Communicating Student Learning

- Identify a Big Idea(s) from a learning area (subject) in the development of a thematic theme of study.
- Select the Learning Standards (curricular competencies & content) from all learning areas that are applicable.
- Select, plan, and prepare assessment tools including the Learning Standards in each learning area (subject).
- Plan learning experiences that will help students, acquire the knowledge, skills, or competencies outlined in the criteria.
- Gather and review evidence of learning in various ways based on students' learning experiences.

Example:

Cross Curricular Unit of Study on Simple Machines

Grade 5

Learning Areas intentionally include:

Science, Social Studies, Mathematics, English Language Arts

General overview of the project

Historical exploration of machines and connections to identity:

- Exploration of “simple machines” used locally since time immemorial (by Lekwungen and W̱SÁNEĆ peoples) - how did the machines support the local economy, the people using them, and in what ways were they sustainable environmentally? How are the “machines” (tools) connected to the identities of those using them?
- Exploration of simple machines as defined in the Renaissance - how did the machines support the local economy, the people using them, and in what ways were they sustainable environmentally? How are the simple machines connected to the identities of those using them?
- Explorations of how simple machines evolved into complex machines used now - how do complex machines support the local economy, the people using them, and in what ways are they sustainable

environmentally? How are the machines connected to the identities of those using them?

Understanding machines:

- Design and build a machine for the purpose of _____ (different purposes can be brainstormed by the class and students may have a choice in what they choose)
- Test your machine at least 10 times, measuring the outcomes and recording the data (ex: if you are building a launcher, you may measure the distances that the object was launched during the 10 trials)
- Describe what you learned about how your machine works in terms of force/direction from your experiment.

Sharing your learning:

- Create a bar chart showing the results of your trials (you may allow students to do at least 1 revision and include this new data in their presentation).
- Present the visual data (bar chart) to the class along with your conclusions about how well your machine accomplished the desired goal and what changes you would make if you were to revise your machine
- Be prepared to answer at least 3 questions from the audience about your presentation

Science:

Big Idea: Machines are devices that transfer force and energy.

Learning Standards:

Curricular Competencies:

- Identify questions to answer or problems to solve through scientific inquiry.
- Make predictions about findings of their inquiry.

Content:

- Properties of simple machines and their effects.

Social Studies:

Big Idea: Natural resources continue to shape the economy and identity of different regions in Canada.

Learning Standards:*Curricular Competencies:*

- Using Social Studies inquiry processes and skills - ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions.

Content:

- The development and evolution of Canadian identity over time.

Mathematics:Learning Standards:*Curricular Competencies:*

- Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving.
- Engage in problem solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures.

Content:

- Measurement of time
- One-to-one correspondence using bar graphs

English Language Arts:

Big Idea: Questioning what we hear, read, and view contributes to our ability to be educated and engaged citizens.

Learning Standards:***Curricular Competencies:***

- Access information and ideas from a variety of sources and from prior knowledge to build understanding.

Content:

- Strategies and processes

CSL & Cross-Curricular Learning Experiences

- The B.C. Curriculum provides many opportunities for cross-curricular learning which includes Learning Standards from multiple learning areas (subjects).
- Within a cross curricular unit, Learning Standards need to be assessed in every learning area (subject) that is relevant.
- Communication of student learning is required in all areas of learning (subjects) in relation to the learning standards or the individualized learning goals outlined in their IEP using the Provincial Proficiency Scale.

Learning Update
Cross-Curricular Example

Student name: Alex Cho
Grade: 5

Date: March, 2023

Teacher Descriptive Feedback		
Areas of Learning	Proficiency Scale Indicator	Descriptive Feedback
English Language Arts	Developing	<p>Alex is developing his ability to present orally with expression, to present his knowledge, and to express his opinions about the history of machines and his scientific experiment with simple machines.</p> <p>Moving forward, a goal for Alex is to focus on the speaker when his peers are presenting and asking questions of them. Alex may benefit from using a graphic organizer to maintain focus and capture his questions when others are presenting.</p>
Mathematics	Proficient	<p>Alex demonstrated his understanding of data collection and representation, and measurement of time, throughout his simple machine experiments. He was able to keep accurate time measurements of how long his machine stayed in motion created a bar chart to represent his results.</p> <p>In the future, Alex can extend his mathematical thinking by Alex drawing conclusions from the data as a way to improve his machine for future experiments. We will support Alex by asking "what does the bar graph tell us?"</p>
Science	Proficient	<p>Alex demonstrated a good understanding of most simple machines, posed a problem that he could explore through scientific inquiry and made predictions about the outcomes.</p> <p>A goal for Alex moving forward is to better understand the pulley and the wheel and axel simple machines as well as communicating his scientific knowledge and thinking more clearly. Alex would benefit from using sentence stems when he communicates.</p>
Social Studies	Developing	<p>With support, Alex can make connections between the machines people use and their identities, especially contemporary</p>

		<p>machines like chainsaws and drills.</p> <p>Moving forward, Alex can learn more about the Lekwungen machines and how they connect to their world views, including how to sustain the natural resources in the area. Alex would benefit from reading more stories about how the Lekwungen people lived before colonization.</p>
Physical and Health Education		
Arts Education		