

Framework for Designing Indigenous Science Resources

<i>Criteria</i>	<i>Gradations of Quality</i>			
	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>
<i>Indigenous Voice</i>	Cultural experts are a significant and critical part of unit implementation. Elders and community members are involved at all stages of the curriculum development process and an Indigenous person is directly involved in the writing of the curriculum.	Cultural experts are involved. Elders and community members have been involved in many stages of the curriculum development process.	Cultural experts have been involved, but their role is not clear.	Involvement of cultural experts not mentioned.
<i>Indigenous Languages</i>	Indigenous languages are recognized as being an integral part of Indigenous ways of knowing and worldview. The language plays a large part in the lessons and activities.	Indigenous languages are recognized as being an integral part of Indigenous ways of knowing and worldview. While the language does not play a large part in the lessons, the importance of learning the language from Elders and other fluent speakers is stressed.	No mention of the importance of Indigenous languages to Indigenous ways of knowing and worldview but there are Indigenous words used here and there throughout the curriculum.	Indigenous languages are not part of the curriculum and there is no mention of their importance to Indigenous ways of knowing and worldview.
<i>Diversity amongst Indigenous Peoples</i>	Focus of curriculum is on one particular Indigenous group. The curriculum is flexible enough so that it can be adapted to other Indigenous groups.	Focus of curriculum is on one particular Indigenous group. There is not much flexibility in the lessons so that they cannot be adapted to other Indigenous groups.	Curriculum is very general and is not focused on any particular Indigenous group. However, it does make reference to the diversity amongst Indigenous groups.	Curriculum is very general and is not focused on any particular Indigenous group. Does not make reference to the diversity amongst Indigenous groups.

Adapted from: Appendix F, pp. 136-140. Thompson, J.C. (Edōsdi), (2004). Gitgaʼat Plant Project: The Intergenerational Transmission of Traditional Plant Knowledge Using School Science Curricula. (Unpublished Master's Thesis). University of Victoria, Victoria, BC.

<i>Protocol</i>	It is recognized that when working with specific Indigenous communities and cultural experts that there are protocols to be followed. These are explicitly stated.	It is recognized that when working with specific Indigenous communities and cultural experts that there are protocols to be followed. These are not stated, but are directed to individuals and/or organizations (e.g. hereditary chiefs, band council members, educators, etc.) in order to find out the proper protocol to be followed.	The importance of following protocol is not highlighted, but individuals and/or organizations within the community are listed as contacts for general information.	There is no mention of the importance of following protocol.
<i>Relationship with the Land</i>	States the importance of the land, plants and animals to Indigenous peoples. Lessons either take place out of the classroom on the land (e.g. at fish camps, seaweed camps, etc.) or in the classroom. Cultural experts are integral to the lessons.	States the importance of the land, plants and animals to Indigenous peoples. While some lessons take place out of the classroom on the land, many of the lessons take place in the classroom. Cultural experts are often involved.	Does not state the importance of the land, plants and animals to Indigenous peoples. Most of the lessons take place in the classroom but cultural experts are brought in once in a while.	Does not state the importance of the land, plants and animals to Indigenous peoples. Lessons take place inside a classroom without the involvement of cultural experts.
<i>Ways of learning, ways of teaching</i>	Traditional ways of learning and teaching are outlined. Activities are numerous and varied and are student-centred. They often take place on the land with Elders (observation, practice, participation, active involvement, etc.). Learning and evaluation ideally take place at the same time; is formative.	Traditional ways of learning and teaching are mentioned. Several activities take place, such as videos, guest speakers, field trips, guided labs, non-directed labs. Lectures are limited and teacher acts as a facilitator. Evaluation is a balance of formative and summative.	Traditional ways of learning and teaching are not mentioned. Some activities, such as videos or guided labs. Evaluation is a balance of formative and summative.	Traditional ways of learning and teaching are not mentioned. Activities are teacher-centred (lecture oriented). Evaluation is summative.