

Saskatchewan

Saskatchewan's curriculum offers a generally strong example of how to authentically Indigenize content with cross-curricular connections for teachers. Similar to other provinces, the Western and Northern Canadian Protocol for Collaboration in Education (1993) and Pan-Canadian Science Outcomes (1997) are referred to and similar strands are used in English and Math when compared with other jurisdictions. As discussed below, there is one troubling anomaly with Saskatchewan's high school Social Studies program that we noticed at the time of this review. However, as the province's curriculum documents seem to be evolving, this may have been subsequently addressed.

English

Saskatchewan's English curriculum ranges in publication date from 2008 to 2013 and seems generally flexible and open ended for teachers which would allow teachers to link to themes of this inquiry if so desired, for example, through the introduction of relevant texts. The curriculum employs a social responsibility lens with a scattering of Indigenous content in the indicators with especially strong connections in high school. Within each grade there are also possibilities for cross-curricular connections. The earlier elementary outcomes include responding to grade level texts, expressing identity through writing, communicate their ideas in a variety of formats. In the older elementary grades, students begin to explore bias, stereotypes, and prejudices. The outcomes are spiraled and continue in each grade with an increase in complexity supported by suggested resources.

Saskatchewan's High School English courses build on the general elementary outcomes while incorporating human agency and social responsibility. For example, here is an outcome of note for this inquiry from Grade 10:

- CR B 10.2 View, interpret, and report on ideas and information from more than one source to develop and support positions on various topics related to the course including identity, social responsibility, and personal agency (p. 18)

Grade 11 and 12 courses provided more explicit Indigenous linkages through literature and outcomes. For example, the outcomes below from Grade 12 could be used to connect with Indigenous environmental themes:

- CR A 30.2 View and evaluate critically information and ideas obtained from First Nations, Métis, Saskatchewan, and Canadian visual and multimedia texts including an advertisement, news broadcast, poster, and film (p. 20)
- CR B 30.2 View, comprehend, and evaluate critically a variety of visual and multimedia texts by international, including indigenous, texts that address: identify (e.g., Sense of Self), social responsibility (e.g., Social Criticism), and social action (agency) (e.g., Addressing the issues) (p. 21)

As demonstrated above, English 12 engages critically with media and texts by exploring power, beliefs, and values are portrayed by use of language and presentation.

Math

Saskatchewan's Math curricula range in publication date from 2007-2012 and, like English, present multiple cross-curricular opportunities. Additionally, notwithstanding our earlier ambivalence in this regard, within the front matter, there is a reference to First Nations and Métis learners with detailed and nuanced discussion of pedagogical concepts and approaches such as constructivism, ethnomathematics, and individual learning histories and styles. These concepts are even represented in the higher grades that are commonly ignored in many other curricula. There also appears to have been consultation with Indigenous academics and educators in this regard.

Specific outcomes of note from the elementary years include, for example, in Grade 6:

- N6.9 Research and present how First Nations and Métis peoples, past and present, envision, represent, and use quantity in their lifestyles and worldviews (p. 34)
- P6.1 m. Research a current or past topic of interest relevant to First Nations and Métis peoples and present the data as a table of values or a graph (p. 35)

Grade 9 also has outcomes that have been connected to Indigenous cultures and could be related to this inquiry:

- SP9.1 Demonstrate understanding of the effect of: bias, use of language, ethics, cost, time and timing, privacy, cultural sensitivity and population or sample on data collection (p. 36)
- SP9.1 a. Analyze given case studies of data collection, including data pertaining to First Nations and Métis peoples, and identify potential problems related to bias, use of language, ethics, cost, time and timing, privacy or cultural sensitivity (p. 36)

High school courses are streamed by ability and focus, with the Indigenization of the curriculum in general being a strong example for other provinces to consider. One outcome from Foundations of Mathematics and Pre-Calculus 10 ties well with this inquiry:

- FP10.3 m. Analyze a treaty for its inclusion of measurements, such as in the surveying for land entitlement, and create and solve situational questions that are relevant to self, family, and community (p. 29)

Science

Saskatchewan's Science curriculum also demonstrates significant consideration of Indigenization; it spans a publication range between 2009-2016 with front matter that contains references to sustainability and stewardship as well as traditional and local knowledge. The early years in the elementary curriculum have space for teachers to teach with reference to Indigenous environmental topics throughout the grades, but what is noteworthy with the Science curriculum is the use of Indigenous knowledge throughout with reference to deep connections with the Land. Naming the Earth "Mother Earth", exploring the ceremonial offering tobacco and the cyclic nature of the seasons as expressed in the Medicine Wheel, and the legend of the Thunderbird to explain light are but some examples of Saskatchewan's meaningful

Indigenization of the curriculum. Through such uses of Indigenous knowledge, connections to the Land and environment are infused throughout Saskatchewan's Science curriculum documents. The interrelationships between people and the environment are also explored throughout elementary curricular outcomes and in Grade 5 students inquire specifically into the effects of changes in weather on people. Grade 7 has a few key outcomes that connect with this inquiry:

- IE7.1 a. Gather information about traditional Indigenous practices with respect to the relationships and connections between people and their ecological environment (p. 30)
- IE7.1 d. Describe the ways that traditional Indigenous knowledge about respect and responsibility for the land, self, and others has been transmitted over many years, including the oral tradition (p. 30)
- IE7.4 b. Propose ecological questions to investigate arising from practical problems and issues (p. 32)
- IE7.4 c. Predict what a specific ecosystem (e.g., clear-cut forest, abandoned sports field, abandoned farm yard, abandoned rail line, ditch, driveway, or sidewalk) will look like in the future (e.g., 5, 10, and 25 years) based on characteristics of the area and long-term changes observed in similar ecosystems (p. 32)

Grade 8 and 9 also have flexibility to link outcomes with the themes of this inquiry, but nothing particularly explicit that we discovered.

Similar to most jurisdictions, Saskatchewan's high school Science courses are divided into specialty areas with less explicitly relevant connections, however Science 10 does have one outcome of note:

- SCI10-CD1 Assess the implications of human actions on the local and global climate and the sustainability of ecosystems [CP, DM] (p. 30)

Environmental Science 20 (Grade 11) also has several outcomes that connect well with critical Indigenous environmental topics:

- ES20-ES1 Examine the methods, mindsets, and purposes of environmental science [CP, DM] (p. 29)
- ES20-AH2 Analyze the production, reliability and uses of geoscience data to investigate the effects of a changing climate on society and the environment [CP, DM, SI] (p. 29)
- ES20-AH2 e. Identify the contributions of Indigenous knowledge in policy decisions related to climate change [K, STSE] (p. 35)
- ES20-HP1 c. Research First Nations and Métis beliefs and practices that demonstrate a sustainable perspective on using resources wisely and minimizing waste [K, STSE, S] (p. 35)

Within the context of Environmental Science 20, the curriculum also encourages teachers to engage with place-based learning to better appreciate the local environment. There is also a

recommended research project in this course, as well as within Physical Science 20, Earth Science 30, and Biology 30 that could be used to connect with Indigenous environmental topics.

Social Studies

Saskatchewan's Social Studies documents range in date of publication from 2009-2010 up to Grade 9 with high school ranging from 1992-1997. The difference between these two eras of curriculum development is striking as the newer curriculum is, like the other subject areas, reflective of Indigenized and decolonized perspectives with further consideration for the diversity of learners in the classroom. However, the more dated high school Social Studies curriculum available for review at the time of this inquiry reflects quite biased views of Indigenous people with particular outcomes that are of concern with respect to perpetuating harmful stereotypes.

The elementary grades offer teachers flexibility to engage with topics related to this inquiry through critically informed Indigenous perspectives, a consideration of connections to the Land, and environment that are spread throughout. One outcome in Grade 1 that ties well to this inquiry is:

- DR1.3 Demonstrate awareness of humans' reliance on the natural environment to meet needs, and how location affects families in meeting needs and wants (p. 21)

A guiding theme in Grade 2 is My Community and there are multiple entry points a teacher could use to link to this inquiry through age appropriate approaches including outcomes such as:

- RW2.2 e. Describe current worldviews in the community of the relationship between humanity and the environment (p. 24)

Much of Grade 2 focuses on worldviews as well as dealing with conflicting interests in communities. Grade 3 considers community connections and has some key outcomes that connect with this inquiry such as:

- DR3.3 Compare the beliefs of various communities around the world regarding living on and with the land (p. 21)
- DR3.3 c. Identify local environmental issues that affect life in communities studied (p. 21)
- PA3.2 Demonstrate awareness that divergent viewpoints may lead to conflict as part of group interactions, and assess various means of conflict resolution (p. 22)

Grade 4's guiding theme is Saskatchewan and it contains an outcome that teachers could use to explore Indigenous social and environmental movements such as Idle No More.

- IN4.3 Determine the influence Saskatchewan people and programs have had on a national scale (p. 19)

Other notable outcomes include:

- DR4.2 Explain the relationship of First Nations and Métis peoples with the land (p. 21)
- DR4.3 Analyze the implications of the Treaty relationship in Saskatchewan (p.21)

Grade 5's guiding theme is Canada and it also has a few key outcomes of note:

- DR5.1 Analyze the historic and contemporary relationship of people to land in Canada (p. 20)
- DR5.2 Assess the impact of the environment on the lives of people living in Canada (p. 20)
- DR5.2 b. Explain how different traditional worldviews of Earth affect the use of resources in Canada (e.g., Aboriginal and European attitudes toward ownership, Treaties, Crown land, homesteads, and the seigniorial system) (p. 21)

Grade 6 considers Canada and its Atlantic neighbours; it contains one specific outcome that could tie to youth activism:

- IN6.4 Explore aspects of cultural change over time, including: reasons for cultural change, examples of cultural change affects youth, how youth respond to cultural change (p. 20)

Grade 6 explores power and privilege and this outcome also connects well with this inquiry:

- RW6.2 Contribute to initiating and guiding change in local and global communities regarding environmental, social, and economic sustainability (p. 26)

A guiding theme in Grade 7 is Canada and its Pacific and northern neighbours with an examination of the effects of globalization and the ecological stewardship of economies in Canada and the countries within this theme. Grade 8 has space for teachers to teach within the context of this inquiry through looking at the Indian Act and injustices in Canadian history as well as key outcomes including:

- DR8.1 b. Analyze the relationship between the traditional Aboriginal concept of land (an animate being; the source of life) and the contemporary Western European notions of land (a resource to be owned and exploited through the centuries (p. 20)
- DR8.2 Describe the influence of the treaty relationship on Canadian identity (p. 21)
- RW8.3 Critique the approaches of Canada and Canadians to environmental stewardship and sustainability (p. 25)

Grade 9 looks at how worldviews are formed as well as how worldviews are expressed in society leaving room for teachers to teach within the context of the project.

As mentioned above, Saskatchewan's high school Social Studies curriculum stands in stark contrast to the critical and nuanced social and environmental perspectives provided in the recently released curricula for the earlier years. The high school Social Studies curriculum portrays Indigenous people and other marginalized groups such as women in both an explicitly

and implicitly biased, patronizing, and overly general manner. Some examples of this are demonstrated in outcomes such as the following:

- Grade 10: For 40 years (from the late 1880's to the 1930's) Indian farming progressed. Agriculture, supplemented by a little hunting, hauling wood and casual labour, allowed Indians to make a living with no need for welfare (p. 228)
- Grade 10: Is it possible for Aboriginal people to remain economically dependent on the Canadian government and still retain their culture? (p. 229)
- Grade 10: Know that cultural change requires time and patience while people learn to adapt to new patterns of knowledge, skills, and values (p. 228)
- Grade 10: The Treaty Rights of Indian People, the term Treaty Rights, refers to the rights and benefits granted to Indian Peoples (p. 338)
- Grade 10 They have found that the only way they can get a hearing from Canadian society has been to organize themselves as interests groups and systematically become involved in politics (p. 340)

Social Studies 20 and 30 continue in a similarly biased tone with regards to Indigenous peoples as well as through outdated, overly general, and condescending references to people living in poverty around the world, who are generally referred to as “the poor” within the document, with a particular focus on women and children (e.g. See p. 418 from Social Studies 20). Potentially controversial and anthropocentric statements regarding the environment and natural resource development can also be found in passages such as the following from an introduction to a Social Studies 20 unit on economic development:

The environment has been both difficult and rewarding for Canadians. Much of Canadian history has been about the struggle to create a high standard of living out of a threatening and difficult geography. Technology has changed the situation. Now it is the economy that is strong and threatening and the environment that is relatively weak. But, despite that, the environment is still significant. Paradoxically, the environment, in its weakness, still exerts a strong influence over Canadians. (p. 203)

History 10, 20, and 30 do not display as much overt bias Social Studies 10, 20, and 30 and there are some spaces for teachers to engage within the context of this inquiry, but it is somewhat limited and restricted due to the prescribed timeline of the history content.

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