BC's SOCIAL STUDIES CURRICULUM

Social Studies 12. Physical Geography

To assist secondary school teachers, we evaluated where materials from this textbook align with British Columbia's Curriculum for teaching Social Studies courses. We followed BC's Curriculum Model, focussing on each of the three elements:

- Big Ideas.
  What students are expected to understand

- Curricular Competencies.
  What students are expected to do

- Content.
  What students are expected to know

Our aim is to help teachers understand where and how the materials in this textbook can be incorporated in their courses to meet provincial learning standards. For reference, the contents of the textbook are included as an Appendix.

Using the materials available on the Ministry's website, we identified Social Studies courses that we believe can incorporate parts of the textbook. We used a rating scale (shown in the table below) to indicate where and how well the textbook's Cases, Applications, and Learning Modules align with the Big Ideas, Competencies, Content, and corresponding elaborations for each course.

The detailed assessment below shows where and how well the textbook materials align with the BC Curriculum for **Social Studies 12. Physical Geography**. We used the following three-point scale:

	Strong alignment with competencies
	Moderate alignment with competencies
	Minor alignment with competencies

BIG IDEAS

Incorporating data from a variety of sources allows us to better understand our globally connected world.	Natural processes have an impact on the landscape and human settlement.	Interactions between human activities and the atmosphere affect local and global weather and climate.

Learning Standards

Curricular Competencies	Content
Students are expected to be able to do the following:	*Students are expected to know the following:*
Use geographic inquiry processes and geographic literacy skills to ask questions; gather, interpret, and analyze data and ideas from a variety of sources and spatial/temporal scales; and communicate findings and decisions (evidence and interpretation)	structure of, feedback within, and equilibrium of natural systems
Assess the significance of places by identifying the physical and/or human features that characterize them (sense of place)	distinguishing features of the atmosphere, hydrosphere, cryosphere, lithosphere, biosphere, and anthroposphere
Assess the interpretations of geographic evidence after investigating points of contention, reliability of sources, and adequacy of evidence (evidence and interpretation)	connections and interactions between the spheres
Draw conclusions about the variation and distribution of geographic phenomena over time and space (patterns and trends)	features and processes of plate tectonics and their effects on human and natural systems
Evaluate how particular geographic actions or events affect human practices or outcomes (geographical value judgments)	features and processes of gradation and their effects on human and natural systems
Evaluate features or aspects of geographic phenomena or locations to explain what makes them worthy of attention or recognition (geographical importance)	natural disasters and their effects on human and natural systems
Identify and assess how human and environmental factors and events influence each other (interactions and associations)	features and processes of Sun–Earth interactions and resulting patterns of climate, landscapes, and ecosystems
Make reasoned ethical judgments about controversial actions in the past and/or present, and determine whether we have a responsibility to respond (geographical value judgments)	climate, weather, and interactions between humans and the atmosphere
	characteristics of global biomes, including climate, soil, and vegetation
	features and processes of the anthroposphere and their effects on natural systems.
	natural resources and sustainability

Curricular Competencies – Elaborations

Use geographic inquiry processes and geographic literacy skills to ask questions; gather, interpret, and analyze data and ideas from a variety of sources and spatial/temporal scales; and communicate findings and decisions (evidence and interpretation):

- **All Case Studies incorporate some geographic literacy skills, primarily to understand planning areas (e.g., watersheds), traditional territories, geographic features, and geopolitical boundaries.**
- **The applications for all case studies place the student in a position of an 'expert' in which they must analyse the situation and decide how to address the issues.**
- **The exercises can include both written and oral communication. The case and relevant learning modules provide context that students must interpret and analyse.**

Sample activities:

Undertake a field site visit to compare and contrast different plant communities.

Use topographic maps to understand modern terrain patterns associated with historical events (e.g., glaciation).

Use satellite imagery of cloud cover to look at atmospheric circulation patterns.

Use GIS to map flood potential.

Use air photos to view mountainous environments in order to examine life zones and hydrological patterns and processes.

Use regional weather charts to explain current and near future local weather conditions.

Develop an understanding of the concept of spatial scale by examining an issue at three scales (e.g., how is a changing climate impacting local water use, regional precipitation patterns, and global distribution of moisture?).

Assess the significance of places by identifying the physical and/or human features that characterize them (sense of place):

Sample activities:

Identify unique characteristics that help to make a place stand out, and determine how they were formed (e.g., river valleys and flood plains, volcanic activity).

Develop boundaries on a map to delineate areas of regional differentiation (e.g., climate regions).

Assess the interpretations of geographic evidence after investigating points of contention, reliability of sources, and adequacy of evidence (evidence and interpretation):

- **All Case Studies incorporate some environmental issue, including urban sprawl and resource development.**

Sample topics:

environmental issues around:

- resource development
- urban sprawl
- infrastructure development in the form of dams or pipelines

Draw conclusions about the variation and distribution of geographic phenomena over time and space (patterns and trends):

- **Given the focus on land, all Case Studies incorporate elements of variation and distribution of geographic phenomena over time and space.**

Key topics:

Recognize patterns – geographic or environmental phenomena that repeat over time and space.
Recognize trends – variations in the consistency of a natural phenomenon in a particular setting over a period of time.

Sample activities:

Research the Ring of Fire, which encircles the Pacific, and how it has affected life in coastal British Columbia.
Examine the impact of urban growth on soil erosion, the water cycle, agricultural land.
Study the location of the world's jungles or deserts: why are they there, how long have they been there, and how are they currently changing?
Research how mountains are formed and where they are found.

Evaluate how particular geographic actions or events affect human practices or outcomes (geographical value judgments):

Sample topic:

climate change and rising sea levels, and how they affect the planet and people in different regions

Evaluate features or aspects of geographic phenomena or locations to explain what makes them worthy of attention or recognition (geographical importance):

Sample topics:

landforms and how they occurred (e.g., glaciated landscapes, volcanic features, stream drainage patterns, deserts)
weather patterns, and possible changes to them
extreme weather (hurricanes, tornadoes, hail, ice storms) and distribution of these events

Identify and assess how human and environmental factors and events influence each other (interactions and associations):

- **All Case Studies incorporate how human and environmental factors influence land uses.**

Sample topics:

human modification of the lithosphere for resource extraction, settlement, agriculture
human modification of the atmosphere by changing the rate of exchange of gases (e.g., release of CO2 through burning of fossil fuels)
human modification of the biosphere by hunting, domesticating, bio-altering, and geographically relocating other species
storm protection of coastal cities by wetlands
settlement patterns associated with access to natural resources (e.g., risk of farming on a flood plain in rich soils developed by river flooding)
global climate change and ocean acidification
deforestation
coral reef bleaching
depletion of ozone layer
global atmospheric circulation patterns
acid precipitation
wild species at risk
drainage patterns, agriculture, and coastal dead zones

Curricular Competencies – Elaborations

weather modification

Make reasoned ethical judgments about controversial actions in the past and/or present, and determine whether we have a responsibility to respond (geographical value judgments):

Key questions:

How much responsibility do we have for the environment?
Should people sacrifice some of their standard of living to halt global climate change?
Can the oceans survive human impacts?
What are the reasons for and against limiting natural resource extraction? Do you think we should limit extraction?