

Curriculum Connections Overview:

Ecological Health & Biodiversity



Metro Vancouver's K-12 School and Youth Leadership Programs align strongly with the BC curriculum and provide support and resources for teachers, students, and youth leaders to explore sustainability concepts and topics. Find out more at metrovancover.org/school-programs.

Science

Big Ideas

Content

K	Plants and animals have observable features Daily and seasonal changes affect all living things	<ul style="list-style-type: none"> Basic needs of plants and animals Adaptations of local plants and animals Local First Peoples use of plants and animals Seasonal changes Living things make changes to accommodate daily and seasonal cycles First Peoples knowledge of seasonal changes
GRADE 3	Living things are diverse, can be grouped, and interact in their ecosystems	<ul style="list-style-type: none"> Biodiversity in the local environment The knowledge of local First Peoples of ecosystems Energy is needed for life
GRADE 4	All living things sense and respond to their environment	<ul style="list-style-type: none"> Biomes as large regions with similar environmental features
GRADE 5	Earth materials change as they move through the rock cycle and can be used as natural resources	<ul style="list-style-type: none"> First Peoples concepts of interconnectedness in the environment The nature of sustainable practices around BC's resources First Peoples knowledge of sustainable practices
GRADE 7	Evolution by natural selection provides an explanation for the diversity and survival of living things Earth and its climate have changed over geological time	<ul style="list-style-type: none"> Organisms have evolved over time Survival needs The fossil record provides evidence for changes in biodiversity over time First Peoples knowledge of changes in biodiversity over time Evidence of climate change over geological time and the recent impacts of humans: Physical records, Local First Peoples knowledge of climate change
SCIENCE 9	The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them	<ul style="list-style-type: none"> Matter cycles within biotic and abiotic components of ecosystems Sustainability of systems First Peoples' knowledge of interconnectedness and sustainability
ENVIRONMENTAL SCIENCE 11	Complex roles and relationships contribute to diversity of ecosystems Changing ecosystems are maintained by natural processes Human practices affect the sustainability of ecosystems Humans can play a role in stewardship and restoration of ecosystems	<ul style="list-style-type: none"> Levels of biotic diversity Ecosystem complexity: Roles, Relationships, Population dynamics Energy flow through ecosystems Matter cycles through and between living systems Succession First Peoples knowledge and other traditional ecological knowledge in sustaining biodiversity Benefits of ecosystem services Human actions and their impact on ecosystem integrity First Peoples ways of knowing and doing Resource stewardship Restoration practices
LIFE SCIENCES 11	Evolution occurs at the population level Organisms are grouped based on common characteristics	<ul style="list-style-type: none"> First Peoples understandings of interrelationships between organisms Microevolution: Adaptation to changing environments, Changes in DNA, Natural selection Macroevolution: Speciation, Processes of macroevolution, Evidence for macroevolution Trends in complexity among various life forms

Curriculum Connections Overview:

Ecological Health & Biodiversity



Metro Vancouver's K-12 School and Youth Leadership Programs align strongly with the BC curriculum and provide support and resources for teachers, students, and youth leaders to explore sustainability concepts and topics. Find out more at metrovancover.org/school-programs.

Social Studies

Big Ideas

Content

K	Rights, roles, and responsibilities shape our identity and help us build healthy relationships with others	<ul style="list-style-type: none"> Rights, roles, and responsibilities of individuals and groups People, places, and events in the local community, and in local First Peoples communities
GRADE 1	<p>We shape the local environment, and the local environment shapes who we are and how we live</p> <p>Our rights, roles, and responsibilities are important for building strong communities</p> <p>Healthy communities recognize and respect the diversity of individuals and care for the local environment</p>	<ul style="list-style-type: none"> Characteristics of the local community that provide organization and meet the needs of the community Relationships between a community and its environment Roles, rights, and responsibilities in the local community Natural and human-made features of the local environment
GRADE 2	Local actions have global consequences, and global actions have local consequences	<ul style="list-style-type: none"> How people's needs and wants are met in communities Relationships between people and the environment in different communities Rights and responsibilities of individuals regionally and globally Roles and responsibilities of regional governments
GRADE 3	Indigenous societies throughout the world value the well-being of the self, the land, spirits, and ancestors	<ul style="list-style-type: none"> Relationships between humans and their environment
GRADE 5	Natural resources continue to shape the economy and identity of different regions of Canada	<ul style="list-style-type: none"> Resources and economic development in different regions of Canada First Peoples land ownership and use
SOCIAL STUDIES 8	Human and environmental factors shape changes in population and living standards	<ul style="list-style-type: none"> Changes in population and living standards
SOCIAL STUDIES 10	The development of political institutions is influenced by economic, social, ideological, and geographic factors	<ul style="list-style-type: none"> Government, First Peoples governance, political institutions, and ideologies Environmental, political, and economic policies
HUMAN GEOGRAPHY 12	<p>Demographic patterns and population distribution are influenced by physical features and natural resources</p> <p>Human activities change landscapes in a variety of ways</p> <p>A geographic region can encompass a variety of physical features and human interactions</p>	<ul style="list-style-type: none"> Relationships between cultural traits, use of physical space, and impacts on the environment Relationship between First Peoples and the environment Global agricultural practices Industrialization, trade and natural resource demands Factors behind increased urbanization and its influence on societies and the environment Relationships between natural resources and patterns of population settlement and economic development

Curriculum Connections Overview:

Ecological Health & Biodiversity



Metro Vancouver's K-12 School and Youth Leadership Programs align strongly with the BC curriculum and provide support and resources for teachers, students, and youth leaders to explore sustainability concepts and topics. Find out more at metrovanancouver.org/school-programs.

Social Studies

Big Ideas

Content

<p>PHYSICAL GEOGRAPHY</p> <p>12</p>	<p>Natural processes have an impact on the landscape and human settlement</p> <p>Interactions between human activities and the atmosphere affect local and global weather and climate</p>	<ul style="list-style-type: none"> • Distinguishing features of the atmosphere, hydrosphere, cryosphere, lithosphere, biosphere, and anthroposphere • Connections and interactions between the spheres • Features and processes of gradation and their effects on human and natural systems • 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
<p>URBAN STUDIES</p> <p>12</p>	<p>Decision making in urban and regional planning requires balancing political, economic, social, and environmental factors</p> <p>Urban planning decisions and other government policies can dramatically affect the overall quality of life in cities</p>	<ul style="list-style-type: none"> • Urbanization as a global phenomenon • Historic settlement patterns in urban centres • Local and regional governance in B.C. and relationships with other levels of government • Functions of local and regional government • Urban planning and urban design • Decision making in the planning of cities and regions • Contemporary issues in urban studies