

# Curriculum Connections Overview: Waste



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](http://metrovancover.org/school-programs).

## Science

### Big Ideas

### Content

	Big Ideas	Content
GRADE <b>2</b>	Materials can be changed through physical and chemical processes	<ul style="list-style-type: none"> <li>Physical ways of changing materials</li> <li>Chemical ways of changing materials</li> </ul>
GRADE <b>3</b>	All matter is made up of particles	<ul style="list-style-type: none"> <li>Matter is anything that has mass and takes up space</li> <li>Atoms are building blocks of matter</li> <li>Sources of thermal energy</li> </ul>
GRADE <b>4</b>	Matter has mass, takes up space, and can change phase Energy can be transformed	<ul style="list-style-type: none"> <li>Phases of matter</li> <li>Energy: has various, is conserved</li> <li>Devices that transform energy</li> </ul>
GRADE <b>5</b>	Earth materials change as they move through the rock cycle and can be used as natural resources	<ul style="list-style-type: none"> <li>First Peoples concepts of interconnectedness in the environment</li> <li>The nature of sustainable practices around BC’s resources</li> <li>First Peoples knowledge of sustainable practices</li> </ul>
GRADE <b>6</b>	Everyday materials are often mixtures	<ul style="list-style-type: none"> <li>Heterogenous mixtures</li> <li>Mixtures: separated using a difference in component properties, local First Peoples knowledge of separation and extraction techniques</li> </ul>
SCIENCE <b>9</b>	The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them	<ul style="list-style-type: none"> <li>Matter cycles within biotic and abiotic components of ecosystems</li> <li>Sustainability of systems</li> <li>First Peoples’ knowledge of interconnectedness and sustainability</li> </ul>
SCIENCE <b>10</b>	Energy is conserved, and its transformation can affect living things and the environment	<ul style="list-style-type: none"> <li>Local and global impacts of energy transformations from technologies</li> </ul>
CHEMISTRY <b>11</b>	Organic chemistry and its applications have significant implications for human health, society, and the environment Matter and energy are conserved in chemical reactions	<ul style="list-style-type: none"> <li>Applications of organic chemistry</li> <li>Local and other chemical processes</li> <li>Green chemistry</li> </ul>
ENVIRONMENTAL SCIENCE <b>12</b>	Sustainable land use is essential to meet the needs of a growing population Living sustainably supports the well-being of self, community, and Earth	<ul style="list-style-type: none"> <li>Changes to climate systems</li> <li>Impacts of global warming</li> <li>Mitigations and adaptations</li> <li>Soil characteristics and ecosystem services</li> <li>Land use and degradation</li> <li>Land management</li> <li>Personal choices and sustainable living</li> <li>Global environmental ethics, policy, and law</li> </ul>

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## Social Studies

### Big Ideas

### Content

<p>GRADE <b>1</b></p>	<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"> <li>• Characteristics of the local community that provide organization and meet the needs of the community</li> <li>• Relationships between a community and its environment</li> <li>• Roles, rights, and responsibilities in the local community</li> <li>• Natural and human-made features of the local environment</li> </ul>
<p>GRADE <b>2</b></p>	<p>Local actions have global consequences, and global actions have local consequences</p>	<ul style="list-style-type: none"> <li>• How people’s needs and wants are met in communities</li> <li>• Relationships between people and the environment in different communities</li> <li>• Rights and responsibilities of individuals regionally and globally</li> <li>• Roles and responsibilities of regional governments</li> </ul>
<p>GRADE <b>6</b></p>	<p>Complex global problems require international cooperation to make difficult choices for the future</p>	<ul style="list-style-type: none"> <li>• The urbanization and migration of people</li> </ul>
<p>SOCIAL STUDIES <b>8</b></p>	<p>Human and environmental factors shape changes in population and living standards</p>	<ul style="list-style-type: none"> <li>• Changes in population and living standards</li> </ul>
<p>SOCIAL STUDIES <b>10</b></p>	<p>The development of political institutions is influenced by economic, social, ideological, and geographic factors</p>	<ul style="list-style-type: none"> <li>• Government, First Peoples governance, political institutions, and ideologies</li> <li>• Environmental, political, and economic policies</li> </ul>
<p>HUMAN GEOGRAPHY <b>12</b></p>	<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"> <li>• Relationships between cultural traits, use of physical space, and impacts on the environment</li> <li>• Relationship between First Peoples and the environment</li> <li>• Global agricultural practices</li> <li>• Industrialization, trade and natural resource demands</li> <li>• Factors behind increased urbanization and its influence on societies and the environment</li> <li>• Relationships between natural resources and patterns of population settlement and economic development</li> </ul>
<p>URBAN STUDIES <b>12</b></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"> <li>• Functions of local and regional government</li> <li>• Urban planning and urban design</li> <li>• Decision making in the planning of cities and regions</li> <li>• Contemporary issues in urban studies</li> </ul>