

Grade 9 Science Core Competencies

Curricular Competencies

Students (should) be able to do the following:

Questioning and predicting

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest
- Make observations aimed at identifying their own questions, including increasingly complex ones, about the natural world
- Formulate multiple hypotheses and predict multiple outcomes

Planning and conducting

- Collaboratively and individually plan, select, and use appropriate investigation methods, including field work and lab experiments, to collect reliable data (qualitative and quantitative)
- Assess risks and address ethical, cultural and/or environmental issues associated with their proposed methods and those of others
- Ensure that safety and ethical guidelines are followed in their investigations

Processing and analyzing data and information

- Experience and interpret the local environment
- Apply First Peoples perspectives and knowledge, other **ways of knowing**, and local knowledge as sources of information
- Use knowledge of scientific concepts to draw conclusions that are consistent with evidence
- Analyze cause-and-effect relationships

Evaluating

- Evaluate their methods and experimental conditions, including identifying sources of error or uncertainty, confounding variables, and possible alternative explanations and conclusions
- Demonstrate an awareness of assumptions, question information given, and identify bias in their own work and secondary sources
- Consider the changes in knowledge over time as tools and technologies have developed
- Exercise a healthy, informed skepticism, and use scientific knowledge and findings to form their own investigations and to evaluate claims in secondary sources
- Consider social, ethical, and environmental implications of the findings from their own and others' investigations

Applying and innovating

- Contribute to care for self, others, community, and world through individual or collaborative approaches
- Transfer and apply learning to new situations
- Generate and introduce new or refined ideas when problem solving
- Contribute to finding solutions to problems at a local and/or global level through inquiry

Communicating

- Express and reflect on a variety of experiences, perspectives, and worldviews through **place**

Content grade 9 science

Students (should) know the following:

- matter cycles within biotic and abiotic components of ecosystems
- sustainability of systems
- First Peoples knowledge of interconnectedness and sustainability

Grade 9 Physical and Health Education Core Competencies

Curricular Competencies

Students (should) be able to do the following:

Physical literacy

- Develop, refine, and apply fundamental movement skills in a variety of physical activities and environments
- Develop and apply a variety of movement concepts and strategies in different physical activities
- Apply methods of monitoring and adjusting exertion levels in physical activity
- Develop and demonstrate safety, fair play, and leadership in physical activities
- Identify and describe preferred types of physical activity

Healthy and active living

- Participate daily in physical activity designed to enhance and maintain health components of fitness
- Describe how students' participation in physical activities at school, at home, and in the community can influence their health and fitness
- Propose healthy choices that support lifelong health and well-being
- Identify and apply strategies to pursue personal healthy-living goals
- Reflect on outcomes of personal healthy-living goals and assess strategies used

Social and community health

- Propose strategies for avoiding and/or responding to potentially unsafe, abusive, or exploitive situations
- Create strategies for promoting the health and well-being of the school and community

Mental well-being

- Analyze strategies for promoting mental well-being, for self and others
- Assess and evaluate strategies for managing problems related to mental well-being and substance use, for others

Content

Students (should) know the following:

- proper technique for fundamental movement skills including non-locomotor, locomotor, and manipulative skills
- movement concepts and strategies
- ways to monitor and adjust physical exertion levels
- how to participate in different types of physical activities, including individual and dual activities, rhythmic activities, and games
- training principles to enhance personal fitness levels, including the FITT principle, SAID principle, and specificity
- effects of different types of physical activity on the body
- basic principles for responding to emergencies
- signs and symptoms of stress, anxiety, and depression

Grade 9 Social Core Competencies

Curricular Competencies

Students (should) be able to do the following:

- Use Social Studies inquiry processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions
- Assess the significance of people, places, events, or developments, and compare varying perspectives on their historical significance at particular times and places, and from group to group (significance)
- Assess the justification for competing historical accounts after investigating points of contention, reliability of sources, and adequacy of evidence (evidence)
- Compare and contrast continuities and changes for different groups at the same time period (continuity and change)
- Assess how prevailing conditions and the actions of individuals or groups affect events, decisions, or developments (cause and consequence)
- Explain and infer different perspectives on past or present people, places, issues, or events by considering prevailing norms, values, worldviews, and beliefs (perspective)
- Recognize implicit and explicit ethical judgments in a variety of sources (ethical judgment)
- Make reasoned ethical judgments about actions in the past and present, and determine appropriate ways to remember and respond (ethical judgment)

Content

Students (should) know the following:

- imperialism and colonialism, and their continuing effects on indigenous peoples in Canada and around the world
- global demographic shifts, including patterns of migration and population growth
- local, regional, and global conflicts
- physiographic features and natural resources in Canada