

Operation Water Drop Curriculum Connections

- ❖ Allows Students to perform hands-on tests on their local water and compare their water to other water samples and the Guidelines for Canadian Drinking Water Quality.
- ❖ OWD Curriculum Connections were last updated in February 2022.
- ❖ Students in grades 4-8 have 8 tests to run in about 40 minutes
- ❖ Students in grades 9-12 have 12 tests to run in about 60 minutes

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Alberta
Grade Six
Science

Curriculum Last Updated: 1996

Topic D: Evidence and Investigation

- 6-8: Apply observation and inference skills to recognize and interpret patterns and to distinguish a specific pattern from a group of similar patterns
- 6-9: Apply knowledge of the properties and interactions of materials to the investigation and identification of a material sample

Grade Seven
Science

Curriculum Last Updated: 2014

Unit A: Interactions and Ecosystems (Social and Environmental Emphasis)

- 1: Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
- 3: Monitor a local environment, and assess the impacts of environmental factors on the growth, health and reproduction of organisms in that environment
- 4: Describe the relationships among knowledge, decisions and actions in maintaining life-supporting environments

Grade Eight
Science

Curriculum Last Updated: 2014

Unit E: Freshwater and Saltwater Systems (Social and Environmental Emphasis)

- 1: Describe the distribution and characteristics of water in local and global environments, and identify the significance of water supply and quality to the needs of humans and other living things
- 3: Analyze factors affecting productivity and species distribution in marine and freshwater environments
- 4: Analyze human impacts on aquatic systems; and identify the roles of science and technology in addressing related questions, problems and issues

Grade Nine

Science

Curriculum Last Updated: 2014

Unit C: Environmental Chemistry (Social and Environmental Emphasis)

- 1: Investigate and describe, in general terms, the role of different substances in the environment in supporting or harming humans and other living things
- 2: Identify processes for measuring the quantity of different substances in the environment and for monitoring air and water quality
- 3: Analyze and evaluate mechanisms affecting the distribution of potentially harmful substances within an environment

Grade Ten

Science

Curriculum Last Updated: 2014

Unit D: Energy Flow in Global Systems (Social and Environmental Contexts Emphasis)

- 1: Describe how the relationships among input solar energy, output terrestrial energy and energy flow within the biosphere affect the lives of humans and other species
- 2: Analyze the relationships among net solar energy, global energy transfer processes—primarily radiation, convection and hydrologic cycle—and climate

Grade Eleven

Biology

Curriculum Last Updated: 2014

Unit A: Energy and Matter Exchange in the Biosphere

- 1: Explain the constant flow of energy through the biosphere and ecosystems
- 2: Explain the cycling of matter through the biosphere
- 3: Explain the balance of energy and matter exchange in the biosphere, as an open system, and explain how this maintains equilibrium

Chemistry

Curriculum Last Updated: 2014

Unit C: Matter as Solutions, Acids and Bases

- 1: Investigate solutions, describing their physical and chemical properties
- 2: Describe acidic and basic solutions qualitatively and quantitatively

Science

Curriculum Last Updated: 2014

Unit A: Chemical Changes

- 1: Students will investigate aqueous solutions to determine conductivity and to calculate concentration

Unit D: Changes in Living Systems

- 1: Analyze ecosystems and ecological succession in the local area and describe the relationships and interactions among subsystems and components
- 2: Analyze and investigate the cycling of matter and the flow of energy through the biosphere and ecosystems as well as the interrelationship of society and the environment

Grade Twelve

Chemistry

Curriculum Last Updated: 2014

Unit D: Chemical Equilibrium Focusing on Acid-Base Systems

- 1: Explain that there is a balance of opposing reactions in chemical equilibrium systems
- 2: Determine quantitative relationships in simple equilibrium systems.

Science

Curriculum Last Updated: 2014

Unit B: Chemistry and the Environment

- 1: Analyze the sources of acids and bases and their effects on the environment
- 2: Analyze the sources of organic compounds and their effects on the environment
- 3: Analyze, from a variety of perspectives, the risks and benefits of using chemical processes in meeting human needs and assess technologies for reducing the impact of chemical compounds on the environment

British Columbia

Grade Four

Science

Curriculum Last Updated: 2016

Big Ideas

- All living things sense and respond to their environment

Grade Five

Science

Curriculum Last Updated: 2016

Content

- Solutions and solubility
- The nature of sustainable practices around BC's resources

Grade Six

Science

Curriculum Last Updated: 2016

Big Ideas

- Everyday materials are often mixtures

Content

- Heterogeneous mixtures

Grade Seven

Science

Curriculum Last Updated: 2016

Content

- Survival needs
- Elements and compounds are pure substances
- Chemical changes

**Grade Nine
Science**

Curriculum Last Updated: 2016

Big Ideas

- The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them

Content

- Matter cycles within biotic and abiotic components of ecosystems
- Sustainability of systems

**Grade Ten
Science**

Curriculum Last Updated: 2018

Big Ideas

- Energy change is required as atoms rearrange in chemical processes.

Content

- How do chemical processes - personal, local, or global - affect your life?
- What safety considerations need to be taken into account when dealing with chemicals?

**Grade Twelve
Biology**

Curriculum Last Updated: 2006

A2: Design an experiment using the scientific method.

- Formulate and carry out a repeatable, controlled procedure to test the hypothesis
- Observe, measure and record data
- Able to draw conclusions from results

A3: Interpret data from a variety of text and visual sources

- Using the data found throughout the lessons students will be able to make inferences and generalizations
- Draw and present conclusions

B2: Describe the characteristics of water and its role in biological systems

- Describe the role of water and understand the chemicals it is treated with and for

Geology

Curriculum Last Updated: 2018

Big Ideas

- Weathering and erosion processes continually reshape landscapes through the interaction of the geosphere with the hydrosphere and atmosphere.

Content

- What impacts do human activities have on local and global groundwater resources?

Manitoba
Grade Five
Science

Curriculum Last Updated: 2000

Cluster 2: Properties of and Changes in Substances

- 5-2-02: Identify characteristics and properties that allow substances to be distinguished from one another.
- 5-2-10: Recognize that a physical change alters the characteristics of a substance without producing a new substance, and that a chemical change produces a new substance with distinct characteristics and properties.

Grade Seven
Science

Curriculum Last Updated: 2000

Cluster 1: Interactions within Ecosystems

- 7-1-13: Demonstrate proper use and care of the microscope to observe micro-organisms.
- 7-1-14 Identify beneficial and harmful roles played by micro-organisms.

Cluster 2: Particle Theory of Matter

- 7-2-23: Discuss the potential harmful effects of some substances on the environment, and identify methods to ensure their safe use and disposal.

Grade Eight
Science

Curriculum Last Updated: 2000

Cluster 4: Water Systems

- 8-4-03: Compare and contrast characteristics and properties of fresh water and salt water.
- 8-4-07: Describe features of the North American drainage system.
- 8-4-14: Identify sources of drinking water and describe methods for obtaining water in areas where supply is limited.
- 8-4-15: Explain how and why water may need to be treated for use by humans.

- 8-4-16: Compare the waste-water disposal system within their communities to one used elsewhere.
- 8-4-17: Identify substances that may pollute water, related environmental and societal impacts of pollution, and ways to reduce or eliminate effects of pollution.
- 8-4-18: Identify environmental, social, and economic factors that should be considered in the management of water resources.

Grade Ten Science

Curriculum Last Updated: 2001

Cluster 1: Dynamics of Ecosystems

- S2-1-03 Describe bioaccumulation and explain its potential impact on consumers.
- S2-1-10: Investigate how human activities affect an ecosystem and use the decision-making process to propose a course of action to enhance its sustainability.

Grade Eleven Biology

Curriculum Last Updated: 2010

Unit 5: Protection and Control

- B11-5-02: Describe the body's response to allergens, vaccines, and viruses/bacteria.

Chemistry

Curriculum Last Updated: 2006

Topic Four: Solutions

- C11-4-13: Differentiate among, and give examples of, the use of various representations of concentration.
- C11-4-14: Solve problems involving calculation for concentration, moles, mass, and volume.
- C11-4-15: Prepare a solution, given the amount of solute (in grams) and the volume of solution (in milliliters), and determine the concentration in moles/litre.
- C11-4-16: Solve problems involving the dilution of solutions.
- C11-4-17: Perform a dilution from a solution of known concentration.
- C11-4-18: Describe examples of situations where solutions of known concentration are important.

- C11-4-19: Describe the process of treating a water supply, identifying the allowable concentrations of metallic and organic species in water suitable for consumption.

New Brunswick

Grade Seven

Science

Curriculum Last Updated: 2002

Unit 1: Interactions within Ecosystems

- 306-3: Describe interactions between biotic and abiotic factors in an ecosystem
- 306-4: Identify signs of ecological succession in a local ecosystem

Grade Nine

Science

Curriculum Last Updated: 2002

Unit 2: Physical Science: Atoms and Elements

- 307-12: Investigate materials and describe them in terms of their properties
- 307-13: Describe changes in the properties of materials that result from some common chemical reactions

Grade Ten

Science

Curriculum Last Updated: 2002

Unit 1: Life Science: Sustainability of Ecosystems

- 318-1: Illustrate the cycling of matter through biotic and abiotic components of an ecosystem by tracking carbon, nitrogen, and oxygen
- 318-6: Explain how biodiversity of an ecosystem contributes to its sustainability
- 331-6: Analyze the impact of external factors on an ecosystem

Grade Eleven

Biology 111/112

Curriculum Last Updated: 2008

Unit 2: Biodiversity

- 331-6: Analyze the impact of external factors on an ecosystem

Unit 3: Maintaining Dynamic Equilibrium

- 314-1: Identify chemical elements that are commonly found in living systems.
- 314-2: Identify the role of compounds, such as water, found in living systems.
- 314-3: Identify and describe the structure and function of important biochemical compounds, including carbohydrates, proteins and lipids.

Environmental Science 120

Curriculum Last Updated: 2012

Unit 1: An Overview of Environmental Science

- Explore and communicate current understanding of local, regional and global environmental issues
- Explore one or a few local or regional issues with respect to the impact on the environment, and on history, economics and social systems
- Practice research and presentation skills including experimenting to test environmental impact, identifying and accessing various organizations for information and expertise, and considering the legislation which impacts on environmental issues.
- Explore how technology is used to gather and communicate information, and to address the issues

Unit 2: Sustainable Development

- Demonstrate an awareness and understanding of the concepts of energy flow, and chemical cycling (carbon, nitrogen, phosphorus, water, oxygen) that support ecological systems

Unit 3: Optional topics for Study (Fresh Water Use)

- Describe water use, locally, nationally, and globally
- Develop an understanding of the natural fresh water ecology and the impact of people
- Contact relevant local, regional and/or national organizations and government agencies, and identify their mandate and perspective on water issues
- Demonstrate the effective and critical use of a variety of investigation and research methods
- Develop a working knowledge of current environmental legislation and policy and how it applies to water issues

Newfoundland and Labrador

Grade Seven

Science

Curriculum Last Updated: 2013

Unit 1: Interactions within Ecosystem

- 306-3: Describe interactions between biotic and abiotic factors in an ecosystem

Unit 3: Mixtures and Solutions

- 307-2: Identify and separate the components of mixtures

Grade Eight

Science

Unit 2: Fluids

Curriculum Last Updated: 2010

- 307-6: Compare the viscosity of various liquids
- 307-7: Describe factors that can modify the viscosity of a liquid
- 307-8: Describe the relationship between the mass, volume, and density of solids, liquids, and gases using the particle theory of matter

Secondary Grades

Biology 2201

Curriculum Last Updated: 2020

GCO 1 Students will develop an understanding of the nature of science and technology, of the relationships between science and technology, and of the social and environmental contexts of science and technology.

- 27.0 analyze natural systems to interpret and explain their structure and dynamics
- 32.0 analyze from a variety of perspectives the risks and benefits to society and the environment of applying scientific knowledge or introducing a particular technology
- 34.0 provide examples of how science and technology are an integral part of their lives and their community
- 36.0 propose courses of action on social issues related to science and technology, taking into account an array of perspectives, including that of sustainability

GCO 3 Students will construct knowledge and understandings of concepts in life science, physical science, and Earth and space science, and apply these understandings to interpret, integrate, and extend their knowledge.

- 28.0 analyze interactions within and between populations
- 33.0 evaluate Earth's carrying capacity, considering human population growth and its demands on natural resources

Chemistry 3202

Curriculum Last Updated: 2019

Unit 2: Acids and Bases

- 51.0: Predict products of acid-base reactions
- 52.0: Calculate the pH of an acid or a base given its concentration, and vice versa
- 54.0: Explain how acid-base indicators function

Environmental Science 3205

Unit 1: Introduction to Environmental Science

Curriculum Last Updated: 2010

- 1.03: Describe the Newfoundland and Labrador transition, from aboriginals, European settlers, to present day, in terms of how they impacted the land
- 1.08: Identify the relationship between human population growth, demand for resources, and increased consumerism
- 1.11: Define environmental conservation
- 1.16: Recognize that environmental monitoring is an essential component of sustainability
- 1.19: Describe your community's impact on the environment
- 1.20: Describe environmental responsibility. Include the role of: individuals, community, industry, and government
- 1.21: Define eco-citizenship. Include knowledge, attitude, and practice
- 1.40: Identify career opportunities related to the study of environmental issues.

Unit 4: Water Use and the Environment

Curriculum Last Updated: 2010

- 4.02: Recognize that water is a finite resource
- 4.12: Identify physical, biological, and chemical impacts on water quality

- 4.13: Evaluate the impacts of human activities on the water resources. Include: personal use, community use, and global use
- 4.18: List the main sources of drinking water in Newfoundland and Labrador. Include surface water, well water (dug and drilled), and "spring" water
- 4.19: Outline the risks involved in drinking untreated water. Include E-coli, giardia, hepatitis, and parasitic worms
- 4.20: Identify the main components of the multi-barrier approach to ensure safe drinking water
- 4.21: Identify the phases of treating municipal water. Include pre-treatment (screening, flocculation and sedimentation), treatment (chlorination, ozonation, ultraviolet light), and post treatment (fluoridation, water softening)
- 4.22: Describe alternate methods of water treatment. Include boiling, carbon filtering, distillation, and reverse osmosis
- 4.23: List sources of wastewater. Include municipal and industrial
- 4.24: Indicate the impacts of untreated wastewater on freshwater and marine ecosystems.
- 4.25: Describe the disposal and treatment methods for municipal and industrial effluent. Include treatment plants, lagoons (containment system), constructed wetlands, septic systems, and out houses

Science 1206

Curriculum Last Updated: 2018

Unit 4: Sustainability of Ecosystems

- 68.0: Illustrate and explain the cycling of matter through biotic and abiotic components of an ecosystem by tracking carbon, nitrogen, and oxygen
- 71.0: Analyze the impact of external factors on an ecosystem

Northwest Territories

See Alberta's and Saskatchewan's Curriculum

The Northwest Territories makes use of Alberta's curriculum for K-12 math, as well as grade 7 to grade 12 sciences and social studies, physical education, and career and technology studies. It also makes use of Saskatchewan's curriculum for grade 1 to grade 9 arts education and Alberta's curriculum for high school arts education.

Nova Scotia

Grade Seven

Science

Curriculum Last Updated: 2014

Physical Science: Mixtures and Solutions

Mixtures

- Examine and separate the components of a variety of mixtures, safely using materials in a laboratory (209-6, 307-2)

Concentration of Solutions

- Perform and solve testable questions about solutions' concentrations (208-1, 210-9)

Mixtures, Solutions, and the Environment

- Identify and explain examples of mixtures and solutions that have an impact on development in science, technology, and environment (112-7, 113-1)
- Describe the science underlying particular technologies designed to explore natural phenomena, extend human capabilities, or solve practical problems (111-5)

Life Science: Interactions within Ecosystems

Components of an Ecosystem

- Identify questions, investigate, and record collected data on the ecosystem's components using materials effectively (208-2, 208-3, 210-1)
- Describe interactions between biotic and abiotic factors in an ecosystem (306-3)
- Distinguish and explain how biological classification reflects the diversity of life on Earth, using specific terms and characteristics (304-1, 109-1, 109-12)

Action

- Defend a proposal to protect a habitat and provide examples of various issues that can be addressed in multiple ways (113-11, 211-5, 113-10)
- Research individuals/groups in Canada that focus on the environment, using various print and electronic sources (112-4, 112-8, 209-5)

Grade Eight Science

Curriculum Last Updated: 2014

Physical Science: Fluids

Forces in Fluids

- Provide examples and a course of action of how science and technology affect personal and community needs (111-1, 113-2)

Grade Nine Science

Curriculum Last Updated: 2014

Atoms and Elements

Physical and Chemical Changes

- Perform experiments, collect evidence, report findings, and demonstrate a knowledge of WHMIS standards in the laboratory (209-7, 111-6, 210-11)
- Investigate materials and describe them in terms of their physical properties (307-12)
- Describe changes in the properties of materials that result from some common chemical reactions (307-13)

Periodic Table

- Use the periodic table as a classification system and compile data about its structure (210-1, 210-2)
- Explain and provide examples of how society's needs for chemistry incorporate science, technology, and environment (112-3, 112-8)

Grade Ten Science

Curriculum Last Updated: 2012

Life Science: Sustainability of Ecosystems

- Question and analyze how a paradigm shift in sustainability can change society's views (114-1)
- Distinguish between biotic and abiotic factors, determining the impact on the consumers at all trophic levels due to bioaccumulation, variability, and diversity (318-2, 318-5)
- Describe how the classification involved in the biodiversity of an ecosystem is responsible for its sustainability (214-1, 318-6)
- Predict and analyze the impact of external factors on the sustainability of an ecosystem, using a variety of formats (212-4, 214-3, 331-6)
- Diagnose and report the ecosystem's response to short-term stress and long-term change (213-7, 215-1, 318-4)

Grade Eleven

Chemistry

Curriculum Last Updated: 2015

Calculations and Chemical Equations

- 214-13: Identify practical problems that involve technology where equations were used
- 213-3: Use instruments effectively and accurately for collecting data
- 215-1: Communicate questions, ideas, and intentions, and receive, interpret, understand, support, and respond to the ideas of others

Applications of Stoichiometry

- 214-12: Explain how data support or refute the hypotheses or prediction of chemical reactions
- 117-2: Analyze society's influence on science and technology

Grade Twelve

Chemistry

Curriculum Last Updated: 2015

Oxidation and Reduction

- 115-1: Distinguish between scientific questions and technological problems

Concentration, Properties, and Solubility

- 213-5: Compile and organize solution data, using appropriate formats and data treatments to facilitate interpretation of solubility
- 323-6: Determine the molar solubility of a pure substance in water

Nunavut

See Alberta's Curriculum

Nunavut uses Alberta's math, science, English language arts and health curriculum.

Ontario
Grade Seven
Science

Curriculum Last Updated: 2007

Understanding Life Systems: Interactions in the Environment

- 3: Demonstrate an understanding of interactions between and among biotic and abiotic elements in the environment.

Understanding Matter and Energy: Pure Substances and Mixtures

- 2: Investigate the properties and applications of pure substances and mixtures;
- 3: Demonstrate an understanding of the properties of pure substances and mixtures, and describe these characteristics using the particle theory.

Grade Eight
Science

Curriculum Last Updated: 2007

Understanding Matter and Energy: Fluids

- 2: Investigate the properties of fluids;
- 3: Demonstrate an understanding of the properties and uses of fluids.

Understanding Earth and Space Systems: Water Systems

- 1: Assess the impact of human activities and technologies on the sustainability of water resources;
- 2: Investigate factors that affect local water quality;
- 3: Demonstrate an understanding of the characteristics of the earth's water systems and the influence of water systems on a specific region.

Grade Nine
Science

Curriculum Last Updated: 2008

B. Biology: Sustainable Ecosystems

- B1: Assess the impact of human activities on the sustainability of terrestrial and/or aquatic ecosystems, and evaluate the effectiveness of courses of action intended to remedy or mitigate negative impacts;
- B2: Investigate factors related to human activity that affect terrestrial and aquatic ecosystems, and explain how they affect the sustainability of these ecosystems;
- B3: Demonstrate an understanding of the dynamic nature of ecosystems, particularly in terms of ecological balance and the impact of human activity on the sustainability of terrestrial and aquatic ecosystems.

Grade Ten

Science

Curriculum Last Updated: 2008

B. Biology: Tissues, Organs, and Systems of Living Things

- B1: Evaluate the importance of medical and other technological developments related to systems biology, and analyze their societal and ethical implications;
- B2: Investigate cell division, cell specialization, organs, and systems in animals and plants, using research and inquiry skills, including various laboratory techniques;
- B3: Demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals and plants.

Grade Eleven

Biology

Curriculum Last Updated: 2008

B. Diversity of Living Things

- B2: Investigate, through laboratory and/or field activities or through simulations, the principles of scientific classification, using appropriate sampling and classification techniques;

Chemistry

Curriculum Last Updated: 2008

E. Solutions and Solubility

- E1: Analyze the origins and effects of water pollution, and a variety of economic, social, and environmental issues related to drinking water;

- E2: Investigate qualitative and quantitative properties of solutions, and solve related problems;
- E3: Demonstrate an understanding of qualitative and quantitative properties of solutions.

Grade Twelve

Chemistry

Curriculum Last Updated: 2008

B. Organic Chemistry

- B1: Assess the social and environmental impact of organic compounds used in everyday life, and propose a course of action to reduce the use of compounds that are harmful to human health and the environment;
- B2: Investigate organic compounds and organic chemical reactions, and use various methods to represent the compounds;
- B3: Demonstrate an understanding of the structure, properties, and chemical behaviour of compounds within each class of organic compounds.

Prince Edward Island

Grade Seven

Science

Curriculum Last Updated: 2016

Life Science: Interactions within Ecosystems

- LS1: Explain how different parts of an ecosystem interact and affect each other

Physical Science: Mixtures and Solutions

- PS3: Design and conduct experiments to explore methods of separating mixtures and solutions, and extend the impact of those methods on society and the environment

Grade Ten

Science SCI431A

Curriculum Last Updated: 2019

Unit 1. Ecosystems: Sustainability of Ecosystems

- 318-1: Illustrate the cycling of matter through biotic and abiotic components of an ecosystem by tracking carbon, nitrogen, and oxygen
- 331-6: Analyze the impact of external factors on an ecosystem
- 318-6: Explain how biodiversity of an ecosystem contributes to its sustainability

Grade Twelve

Environmental Science 621A

Curriculum Last Updated: 2011

Ecological Principles

- 3.5: Illustrate the cycling of matter through biotic and abiotic components of an ecosystem
- 3.6: Conduct an experiment to measure abiotic factors of an ecosystem

Natural Resources

- 5.8: Demonstrate an understanding of sustainable water use at local, national, and global levels

- 5.9: Evaluate the significance of water resources for international relations

Environmental Challenges and Successes

- 6.10: Summarize the main types, sources and effects of water pollution
- 6.11: Explain strategies that reduce air and water pollution
- 6.12: Conduct an experiment to determine water pollutants
- 6.13: Identify the types of solid domestic waste
- 6.14: Evaluate pollution management strategies from solid domestic waste on Prince Edward Island
- 6.15: Propose a course of action on a social issue related to waste management, taking into account human, economic, and environmental needs

Quebec
Elementary Cycle One
Science and Technology

Curriculum Last Updated: 2011

Earth and Space

A. Matter

- 3. Transformation of matter

Elementary Cycle Two and Three
Science and Technology

Curriculum Last Updated: 2011

Living Things

D. Systems and interaction

- 3. Interaction between humans and their environment

Secondary Cycle One
Science and Technology

Curriculum Last Updated: 2011

The Earth and Space

A. Characteristics of the Earth

- 3. Hydrosphere

Secondary Cycle Two
Applied Science and Technology

Curriculum Last Updated: 2011

The Earth and Space

A. Characteristics of the Earth

- 3. Hydrosphere

Science and Technology

Curriculum Last Updated: 2011

The Earth and Space

- Hydrosphere

Science and the Environment

Curriculum Last Updated: 2011

The Material World

A. Properties

- 3. Properties of solutions

The Earth and Space

A. Characteristics of the Earth

- 3. Hydrosphere

Second Year of Secondary Cycle Two Environmental Science and Technology

Curriculum Last Updated: 2011

The Material World

A. Properties

- 3. Properties of solutions

The Earth and Space

A. Characteristics of the Earth

- 3. Hydrosphere

Saskatchewan

Grade Seven

Science

Curriculum Last Updated: 2009

Life Science: Interactions within Ecosystems (IE)

- IE7.3: Evaluate biogeochemical cycles (water, carbon, and nitrogen) as representations of energy flow and the cycling of matter through ecosystems.
- IE7.4: Analyze how ecosystems change in response to natural and human influences, and propose actions to reduce the impact of human behaviour on a specific ecosystem.

Physical Science: Mixtures and Solutions (MS)

- MS7.3: Investigate the properties and applications of solutions, including solubility and concentration.

Grade Eight

Science

Curriculum Last Updated: 2009

Physical Science: Forces, Fluids, and Density (FD)

- FD8.3: Investigate and describe physical properties of fluids (liquids and gases), including viscosity and compressibility. [SI]
- FD8.4: Identify and interpret the scientific principles underlying the functioning of natural and constructed fluid systems.

Earth and Space Science: Water Systems on Earth (WS)

- WS8.1: Analyze the impact of natural and human-induced changes to the characteristics and distribution of water in local, regional, and national ecosystems.

Grade Nine

Science

Curriculum Last Updated: 2009

Physical Science: Atoms and Elements (AE)

- AE9.1: Distinguish between physical and chemical properties of common substances, including those found in household, commercial, industrial, and agricultural applications.

Grade Ten Science

Curriculum Last Updated: 2016

Career Investigation

- SCI10-CI1 Investigate career paths related to various branches and sub-branches of science.

Climate and Ecosystem Dynamics

- SCI10-CD1 Assess the implications of human actions on the local and global climate and the sustainability of ecosystems.

Chemical Reactions

- SCI10-CR1 Explore the properties of chemical reactions, including the role of energy changes, and applications of acids and bases.

Grade Eleven Environmental Science

Curriculum Last Updated: 2017

Career Exploration

- ES20-CE1 Analyze and explore environmental science related career paths in Saskatchewan, Canada and the world.

Human Population and Pollution

- ES20-HP1 Investigate technologies and processes used for mitigating and managing resource use, waste generation and pollution associated with a growing human population.

Aquatic Systems

- ES20-AS1 Analyze the function and condition of freshwater aquatic systems such as rivers, streams, lakes, wetlands and watersheds.
- ES20-AS2 Assess the importance of maintaining healthy water for humans and the environment.

Grade Twelve

Chemistry

Curriculum Last Updated: 2017

Chemical Equilibria

- CH30-EQ3 Observe and analyze phenomena related to acid-base reactions and equilibrium.

Earth Science

Curriculum Last Updated: 2018

Earth Science 30: Atmosphere and Hydrosphere

- ES30-AH2 Investigate how the hydrosphere interacts with and impacts the biosphere and other components of the geosphere.

Yukon

See British Columbia's Curriculum

The British Columbia program of studies forms the basis of the Yukon curriculum.