

FEEDING CANADA

Exploring Our Food System

– A VIDEO SERIES –



CURRICULUM CONNECTIONS

LESSON 1: SUSTAINABLE FARMING**Grade 7****Science**

Unit A 1 Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions.

Unit A 2 Trace and interpret the flow of energy and materials within an ecosystem.

Unit A 3 Monitor a local environment, and assess the impacts of environmental factors on the growth, health and reproduction of organisms in that environment.

Unit B 1 Investigate plant uses; and identify links among needs, technologies, products and impacts.

Unit B 3 Analyze plant environments, and identify impacts of specific factors and controls.

Unit B 4 Identify and interpret relationships among human needs, technologies, environments, and the culture and use of living things as sources of food and fibre.

Grade 9**Science**

Unit A 4 Identify impacts of human action on species survival and variation within species, and analyze related issues for personal and public decision making.

Unit C 2 Identify processes for measuring the quantity of different substances in the environment and for monitoring air and water quality.

Grade 10**Science**

SCI14 Unit D 1 Describe how the flow of matter in the biosphere is cyclical along characteristic pathways and can be disrupted by human activity.

SCI14 Unit D 2 Analyze a local ecosystem in terms of its biotic and abiotic components, and describe factors of the equilibrium.

Grade 11**Science**

SCI20-A2.2 sts Describe applications of science and technology that have developed in response to human and environmental needs.

SCI20-A3.2 sts Discuss the appropriateness, risks and benefits of technologies, assessing each potential application from a variety of perspectives, including sustainability.

SCI20-D1.1 k Investigate and analyze an aquatic or terrestrial local ecosystem, distinguish between biotic and abiotic factors, describe how these factors affect population size and

- infer the abiotic effects on life;
- infer biotic interactions;
- infer the influence of biota on the local environment.

SCI20-D3.5 k Describe how factors including space, accumulation of wastes, competition, technological innovations, irrigation practices and the availability of food impact the size of populations.

BIO20-A2.1 sts Explain that science and technology have both intended and unintended consequences for humans and the environment.

CHEM20-D2.2 sts Explain how the appropriateness, risks and benefits of technologies need to be assessed for each potential application from a variety of perspectives, including sustainability.

Grade 12

Science

SCI30-B2.5 k Identify and explain how human activities and natural events contribute to the production of photochemical smog, the depletion of the ozone layer and increased concentrations of organic compounds in the environment.

SCI30-D1.5 k Describe the environmental impact of developing and using various energy sources; i.e., conventional oil, oil sands, solar power, wind power, biomass, hydroelectricity, coal-burning power, nuclear power, geothermal.

LESSON 2: FARM ANIMAL CARE

Grade 7

Science

Unit B 4 Identify and interpret relationships among human needs, technologies, environments, and the culture and use of living things as sources of food and fibre.

LESSON 3: FOOD SAFETY

Grades 10-12

Health

CALM P6 Determine practices and behaviours that contribute to optimal physical well-being.

CALM R6 Develop strategies to be informed consumers.

Grades 7-9

CTF

All Foods Courses I follow safety requirements associated with occupational areas and related technologies.

Grades 10-12

CTS

All Foods Courses Identify and demonstrate safe and sanitary practices.

FOD 1010

- 1.1 Identify the need for personal hygiene.
- 1.2 Demonstrate appropriate hand-washing techniques.
- 1.3 Demonstrate proper sanitization of equipment and workspace.

FOD 2150

- 1.1 Relate the composition of foods to their potential for food-borne illnesses.
- 1.5 Identify significant micro-organisms responsible for food borne illnesses.
- 2.1 Demonstrate control of food contamination and growth of micro-organisms in food.
- 2.2 Identify procedures for receiving, handling and storage of food and equipment.
- 3.2 Discuss the Public Health Act related to Food Regulation.
- 3.3 Identify potentially high-risk food preparation areas.

FOD 3900

- 1.1 Describe the principles and components of food safety Quality Assurance/Quality Control (QAQC) programs.
- 1.2 Describe the role of the federal government in ensuring food safety.
- 3.1 Identify safe food-handling practices that should be applied during the production and service of food.
- 4.1 Explain the importance of personal hygiene and the guidelines food handlers must follow to prevent foodborne illness.
- 5.1 Identify and describe factors that affect the growth of each of the five main types of micro-organisms.

LESSON 4: ANTIBIOTICS AND GROWTH HORMONES**Grade 8****Science**

Unit B 4 Describe areas of scientific investigation leading to new knowledge about body systems and to new medical applications.

Grade 9**Science**

Unit C 1 Investigate and describe, in general terms, the role of different substances in the environment in supporting or harming humans and other living things.

Grade 10**Science**

SCI14 Unit C 4 Identify and compare, in general terms, the life functions common to living systems, from cells to organ systems.

Grade 11

Science

SCI24 Unit C 5 Analyze how longevity in humans has increased over time as a result of a better understanding of pathogens and genetics, and improved sanitary conditions and personal hygiene.

Grade 12

Science

BIO30-A2.1 sts Explain that science and technology have both intended and unintended consequences for humans and the environment.

BIO30-B2.1 sts Explain how science and technology have influenced, and been influenced by, historical development and societal needs.

LESSON 5: BIOTECHNOLOGY

Grade 7

Science

Unit B 4 Identify and interpret relationships among human needs, technologies, environments, and the culture and use of living things as sources of food and fibre.

Grade 9

Science

Unit A 3 Describe, in general terms, the role of genetic materials in the continuity and variation of species characteristics; and investigate and interpret related technologies.

Unit A 4 Identify impacts of human action on species survival and variation within species, and analyze related issues for personal and public decision making.

Grade 10

Science

SCI14 Unit D 2 Analyze a local ecosystem in terms of its biotic and abiotic components, and describe factors of the equilibrium.

Grade 11

Science

SCI24 Unit C 5 Analyze how longevity in humans has increased over time as a result of a better understanding of pathogens and genetics, and improved sanitary conditions and personal hygiene.

Grade 12

Science

SCI30-A3.9 k Describe, in general terms, genetic engineering and its application to gene therapy and the development of genetically modified organisms.

SCI30-A3.1 sts Explain that science and technology are developed to meet societal needs and expand human capability.

SCI30-A3.2 sts Explain that decisions regarding the application of scientific and technological development involve a variety of perspectives, including social, cultural, environmental, ethical and economic considerations.

LESSON 6: WASTED FOOD AND FOOD RECOVERY

Grade 9

Social Studies

9.2.5 Assess, critically, the relationship between consumerism and quality of life in Canada and the United States.

Grade 10

Social Studies

SS10-1.3.7 Explore multiple perspectives regarding the relationship among people, the land and globalization (spirituality, stewardship, sustainability, resource development).

Grade 11

Social Studies

SS20-1.3.3 Demonstrate a global consciousness with respect to human condition and global affairs.

Grades 10-12

Health

CALM R6 Develop strategies to be informed consumers.

Grades 7-9

CTF

All Foods Courses I demonstrate environmental stewardship associated with occupational areas.

Grades 10-12

CTS

All Foods Courses Identify and demonstrate safe and sanitary practices.

- Dispose of waste materials in an environmentally safe manner.