

Ontario Curriculum Connections

Every activity and presentation has many aspects of language and mathematics. The following list does not include those curriculum connections.

The expectations listed below examine each grade in the area of science, health & physical education and social studies. Teachers will be looking for connections in several areas. You will need to choose which expectations work best with your topic and the grade level attending. **It's better to change your focus to fit the curriculum and the appropriate grade level, then to try and stretch the curriculum to fit your existing program!**

Grade One

Science: Characteristics and Needs of Living Things

- ❖ compare the basic needs of humans with the needs of other living things
- ❖ describe basic changes in humans as they grow and compare with other living things
- ❖ identify ways in which individuals can maintain a healthy environment for themselves and for other living things
- ❖ ask questions about and identify some needs of living things, and explore possible answers to these questions and ways of meeting those needs

Health & Physical Education

- ❖ recognize that rest, food and exercise affect growth
- ❖ identify healthy eating habits

Social Studies: The Local Community

- ❖ identify how farmers' and animals' basic needs are met
- ❖ identify the occupations of some people in a farming community
- ❖ show an understanding of how these people are important to meeting their needs and ensuring their safety

Grade Two

Science: Growth and Changes in Animals

- ❖ identify constant traits and changing traits in animals as they grow, and compare the appearance of young and mature animals of the same species
- ❖ identify and describe the major physical characteristics of different types of animals
- ❖ describe changes in the appearance and activity of an animal as it goes through a complete lifecycle
- ❖ ask questions about and identify some needs of different animals with which they are familiar, and explore possible answers to these questions and ways of meeting those needs
- ❖ demonstrate awareness of ways of caring for animals properly

Health & Physical Education

- ❖ describe the importance of food to the body

Social Studies: Traditions and Celebrations

- ❖ demonstrate an understanding that traditions are passed down from parents and grandparents (e.g. name of your farm, family history)
- ❖ identify ways in which heritage and traditions are passed on (through community celebrations, special days like your yearly presentation, farm tours, harvest festivals)
- ❖ describe the contributions each family makes to the community (chores)

Grade Three

Science: Energy and Control-Forces and Movement

- ❖ identify objects, devices, and systems in every day life that are affected by forces and movement and explain in what ways they are useful to us (e.g. mystery tools, farm machinery)

Science: Structures and Mechanisms-Stability

- ❖ demonstrate an understanding of the factors that affect the stability of objects (e.g. a structure collapses when a load is too heavy; a latch on a gate opens when pressed.)

- ❖ describe, using their observations, the changes in the amount of effort needed to lift a specific load with a lever when the position of the fulcrum is changed

Social Studies: Urban and Rural Communities

- ❖ demonstrate an understanding of the characteristics of rural communities
- ❖ describe an interaction between people and the environment (environmental stewardship fits well here)
- ❖ identify some products that Ontario sells to other provinces or territories and buys from them (from grower to market idea; export numbers work well here)

Grade Four

Science: Habitats and Communities

- ❖ describe a way in which humans are dependent on plants and animals
- ❖ describe ways in which humans can effect the natural world
- ❖ identify, through observation, various factors that affect animals in a specific habitat
- ❖ formulate questions about and identify the needs of animals in a particular habitat, and explore possible answers to these questions and ways of meeting these needs

Science: Pulleys and Gears

- ❖ demonstrate an awareness of the concept of mechanical advantage by using a variety of pulleys and gears
- ❖ demonstrate an understanding of the characteristics of pulleys and gears

Health & Physical Education

- ❖ use life skills to address personal injury prevention
- ❖ identify critical content information on food labels

Grade Five

Science: Properties of Change in Matter

- ❖ identify the properties that make different materials useful in everyday products and discuss the environmental impact of their use

Science: Structures and Mechanisms

- ❖ compare the force needed to lift a load manually with the force required to lift the load with a simple machine
- ❖ recognize the advantages and disadvantages of using various mechanisms with respect to the amount of energy they require to move or lift a given load

Science: Weather

- ❖ describe ways in which weather conditions affect the activities of humans and other animals
- ❖ understand and explain the importance of weather forecasts for people in certain occupations

Health & Physical Education

- ❖ analyze information that has an impact on healthy eating practices (e.g. food labels, food guides, care of teeth brochures)

Grade Six

Science: Life Systems- Diversity of Living Things

- ❖ demonstrate an understanding of ways in which classification systems are used to understand the diversity of living things and the interrelationships among them
- ❖ investigate classification systems and some of the processes of life common to all animals (e.g. growth, reproduction, movement, response and adaptation)
- ❖ describe ways in which classification systems can be used in everyday life

Science: Structures and Mechanisms-Motion

- ❖ demonstrate an understanding of different kinds of motion (linear, rotational, reciprocating, oscillating)
- ❖ describe, using their observations, ways in which mechanical devices and systems produce a linear output from a rotary input (e.g. screw, crank and slider, rack and pinion, can and cam follower)
- ❖ describe, using their observations, the purposes or uses of three simple levers (wheelbarrow, tongs, seesaw)

Health & Physical Education

- ❖ describe the benefits of healthy eating for active living

Social Studies: Canada and Its Trading Partners

- ❖ identify products that Canada imports and exports

- ❖ identify the countries to which Canada exports goods
- ❖ describe how sharing of goods and culture between Canada and other countries can influence the lifestyles of Canadians

Grade Seven

Science: Interactions Within Ecosystems

- ❖ identify and explain economic, environmental and social factors that should be considered in the management and preservation of habitats
- ❖ demonstrate an understanding of the interactions of plants, animals, fungi, and micro-organisms in an ecosystem

Science: Pure Substances and Mixtures

- ❖ identify a variety of manufactured products from mixtures or solutions and explain their functions(e.g. medicine, cosmetics, cleaning solutions..)
- ❖ identify the sources and characteristics of pollutants from manufacturing and agricultural systems
- ❖ investigate properties of different kinds of mechanical mixtures and solutions that make them useful in manufacturing products for particular purposes

Science: Structural Strength and Stability

- ❖ classify structures as solid structures, frame structures or shell structures
- ❖ describe, using their observations, ways in which different forces can affect the stability of a structure (e.g. certain forces may cause a structure to shear, twist or buckle.)
- ❖ measure the performance of a structure by comparing its mass with the mass of the load it supports

Geography-Patterns in Physical Geography

- ❖ describe the correlation between physical patterns and types of crops
- ❖ demonstrate an understanding of three types of agriculture (subsistence, commercial, specialized) and their relation to climate, topography and soil
- ❖ identify the six major factors which influence commercial agriculture: location, climate, raw materials, market labour and transportation
- ❖ investigate and describe how specialized forms of agriculture (e.g. beef, pigs, dairy farming) relate to world patterns of land-forms, climate and vegetation

Grade Eight

Science: Cells , Tissues, Organs and Systems

- ❖ demonstrate an understanding of the basic structure and function of animal cells and describe the hierarchical organization of cells in animals

Science: Mechanical Efficiency

- ❖ investigate and measure forces that affect the movement of an object
- ❖ identify the kinds of information that assists consumers in making a decision about buying a product (e.g. information on performance, durability, safety, benefits to health)
- ❖ recognize the importance of unbiased testing of control samples and independent evaluation of the test results before a product is manufactured

Health & Physical Education

- ❖ identify local support groups and community organizations that provide information or services related to health and well-being

History: Canada: A Changing Society

- ❖ demonstrate an understanding of factors contributing to change in a society
- ❖ identify and describe the achievements of Canadians who have contributed significantly to the development of Canada and the world (e.g. contributions of inventors, innovators, entrepreneurs. See OAFE resource -*Outstanding Ontarians*)

Geography:

- ❖ demonstrate an understanding of how site and situation influence settlement
- ❖ identify and describe the types of land use.(e.g. residential, recreational, institutional, agricultural)
- ❖ demonstrate an understanding of employment patterns and trends

Secondary/Adult Expectations

Here are some general areas to highlight when dealing with an older group of people. Remember that no one is ever too old to enjoy a multi-sensory experience so all of the general principles for good presentation techniques still apply. This group, however, will need less information and more 'on the spot challenges' to their pre-conceived notions around agriculture and farming. However, don't be fooled or fear that you need to avoid 'older kids'. You are still the expert and have more life experience and skills than they could possibly have! Be confident, yet basic, when dealing with this group. Very few of them will have a farming background, and if they do, bring them on board as the expert. Give them their moment in the limelight if they will accept it. If not, then you are the expert. Remember, they pretend to know more than they really do and that they think they are much 'cooler' than they really are. Some areas for consideration are:

Guidance and Career Education. You can highlight the many possibilities and career choices in agriculture and food. The University of Guelph (Ontario Agricultural College) has information and even a computer disc free of charge that outlines a direction and focus for anyone considering aspects of agriculture as a career. Contact the OAC Dean's Office: (519) 824-4120

Health and Physical Education. Active living and physical activity are the components of this curriculum featuring the importance of being outside and staying fit by making healthy lifestyle choices. (e.g. healthy eating decisions, peer pressure, healthy growth and sexuality, engaged physical activity)

Business Studies. The strands in this curriculum consist of :

- The Role and Impact of Business
- Conducting Business in a Competitive Marketplace and in the Changing Workplace
- Entrepreneurship
- International Business
- Electronic Research and Ethical Issues

Science. Four disciplines including biology, chemistry, earth and space science and physics. Some of the topics are:

- Reproduction
- The Sustainability of Ecosystems

- Chemical Reactions and their Practical Applications
- Weather Systems

Canadian and World Studies. This work involves many ways to improve the balance between human needs and natural systems.(e.g. recycling, reducing pollution, urbanization, agricultural lands and wilderness) Some topics are directly related to agriculture issues.

- Global Connections (diversity and interdependence)
- Understanding and Managing Change
- Human Environment Interactions
- Communities: Local, National, and Global
- Citizenship and Heritage (environmental stewards)
- Personal and Social Responsibilities