

# GRADE 5

See the Preface for important information on the organization of the following material.

## The Arts (2009)

### B. DRAMA

#### B1. Creating and Presenting

- B1.1** engage actively in drama exploration and role play, with a focus on examining issues and themes in fiction and non-fiction sources from diverse communities, times, and places (*e.g., ... use role play to explore social issues related to topics such as the environment, immigration, bullying, treaties, the rights and responsibilities of the child*)

**Teacher prompts:** ... “What drama strategy or convention can your group use to present solutions to the audience for your environmental issue?”

### C. MUSIC

#### C1. Creating and Performing

- C1.3** create musical compositions for specific purposes and audiences (*e.g., compose an accompaniment for a story, poem, or drama presentation to address an environmental issue such as water conservation, recycling, or planting trees; ... use body percussion, found sounds, voice, and non-pitched percussion instruments to vary the timbres in their work*)

#### C2. Reflecting, Responding, and Analysing

- C2.1** express detailed personal responses to musical performances in a variety of ways (*e.g., ... analyse a movement from Vivaldi’s Four Seasons in a think-pair-share listening activity, and describe their feelings and personal impressions; ...*)

**Teacher prompts:** ... “What in the ‘Spring’ movement of Vivaldi’s *Four Seasons* makes you think of spring?”

### D. VISUAL ARTS

#### D1. Creating and Presenting

- D1.1** create two- and three-dimensional art works that express feelings and ideas inspired by their own and others’ points of view (*e.g., ... a coloured line drawing of an underwater setting or the view from an airplane that addresses environmental awareness by showing the interconnectedness of ecosystems; ...*)

**Teacher prompts:** ... “How does our impression of the world change when we look at it from a bird’s-eye view rather than a worm’s-eye view? How can you use a particular point of view in your painting (not necessarily these) to create a particular impression?”

## **D2. Reflecting, Responding, and Analysing**

**D2.3** demonstrate an understanding of how to read and interpret signs, symbols, and style in art works (e.g., *Carl Ray's paintings use symbols in the Woodland style of Aboriginal art to tell a story; ... a tiger is used in Asian art to signify bravery*)

**Teacher prompts:** “Why are creatures such as the thunderbird or eagle associated with the idea of power and privilege in some art works?” ...

## **French As a Second Language – Extended French, French Immersion (2001); Core French (1998)**

Although no overall or specific expectations explicitly address environmental education, in each of the strands the learning context (e.g., a topic or thematic unit related to the environment) and/or learning materials (e.g., books, websites, media) could be used to foster in students the development of environmental understanding.

## **Health and Physical Education (1998)**

### **HEALTHY LIVING**

The first overall expectation, with its focus on healthy eating practices, may lend itself to environmental education as students analyse information about foods (including information from package labels) and consider the relationship between healthy foods and the environment.

### **ACTIVE PARTICIPATION**

As students apply living skills to physical activities (third overall expectation), they can develop an appreciation of the natural environment, gain an experiential knowledge of the environment, and develop the problem-solving skills necessary for an environmentally literate citizen.

## **Language (2006)**

Although no specific or overall expectations explicitly address environmental education, in each of the strands the learning context (e.g., a topic or thematic unit related to the environment) and/or learning materials (e.g., books, websites, media) could be used to foster in students the development of environmental understanding. Also, in each of the strands, there are some expectations that can provide opportunities for exploring environmental education – for example, expectations on making inferences, making connections, analysing and evaluating texts, developing a point of view, and doing research. Some examples in the expectations in the Writing and Media Literacy strands support environmental literacy skill development.

## **Mathematics (2005)**

Although no overall or specific expectations explicitly address environmental education, in each of the strands the learning context could be used to foster in students the development of environmental understanding (e.g., problems relating to climate or waste management could be the focus of student learning). In addition, the mathematical processes (e.g., problem solving, connecting) address skills that can be used to support the development of environmental literacy.

### **DATA MANAGEMENT AND PROBABILITY**

In this strand, the collecting of data could be extended to include environmental issues.

## **Native Languages (2001)**

Although no overall or specific expectations explicitly address environmental education, in each of the strands the learning context (e.g., a topic or thematic unit related to the environment) and/or learning materials (e.g., books, websites, media) could be used to foster in students the development of environmental understanding. Learning about aspects of Native culture and communities may provide for students opportunities to make connections with local places.

## **Science and Technology (2007)**

### **UNDERSTANDING LIFE SYSTEMS: HUMAN ORGAN SYSTEMS**

- 1 analyse the impact of human activities and technological innovations on human health
- 1.1 assess the effects of social and environmental factors on human health, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial

### **UNDERSTANDING STRUCTURES AND MECHANISMS: FORCES ACTING ON STRUCTURES AND MECHANISMS**

- 1 analyse social and environmental impacts of forces acting on structures and mechanisms
- 1.1 analyse the effects of forces from natural phenomena (e.g., *tornadoes, hurricanes, earthquakes, tsunamis*) on the natural and built environment
- 1.2 evaluate the impact of society and the environment on structures and mechanisms, taking different perspectives into account (e.g., *the perspectives of golfers, local bird-watching groups, families, a school board*), and suggest ways in which structures and mechanisms can be modified to best achieve social and environmental objectives
- 3 identify forces that act on and within structures and mechanisms, and describe the effects of these forces on structures and mechanisms
- 3.4 describe forces resulting from natural phenomena that can have severe consequences for structures in the environment (e.g., *a house loses its roof in a wind storm*), and identify structural features that help overcome some of these forces (e.g., *cross supports for roofs, steel beams in bridges*)

## **UNDERSTANDING MATTER AND ENERGY: PROPERTIES OF AND CHANGES IN MATTER**

- 1 evaluate the social and environmental impacts of processes used to make everyday products
- 1.1 evaluate the environmental impacts of processes that change one product into another product through physical or chemical changes
- 1.2 assess the social and environmental impact of using processes that rely on chemical changes to produce consumer products, taking different perspectives into account (*e.g., the perspectives of food manufacturers, consumers, landfill operators, people concerned about the environment*), and make a case for maintaining the current level of use of the product or for reducing it

## **UNDERSTANDING EARTH AND SPACE SYSTEMS: CONSERVATION OF ENERGY AND RESOURCES**

- 1 analyse the immediate and long-term effects of energy and resource use on society and the environment, and evaluate options for conserving energy and resources
- 1.1 analyse the long-term impacts on society and the environment of human uses of energy and natural resources, and suggest ways to reduce these impacts (*e.g., turning off the faucet while brushing teeth or washing and rinsing dishes conserves water; reusing or recycling products, or using fewer products, conserves natural resources and energy*)
- 1.2 evaluate the effects of various technologies on energy consumption (*e.g., improving our home's insulation allows us to conserve heat and reduce energy consumption; aerodynamic design can improve the energy efficiency of cars and buses; household appliances designed to make our lives easier use large amounts of energy; some cars and recreational vehicles use energy less efficiently than others*), and propose ways in which individuals can improve energy conservation
- 3 demonstrate an understanding of the various forms and sources of energy and the ways in which energy can be transformed and conserved
- 3.2 identify renewable and non-renewable sources of energy (*e.g., renewable: sun, wind, ocean waves and tides, wood; non-renewable: fossil fuels such as coal and natural gas*)

## **Social Studies (2004)**

### **HERITAGE AND CITIZENSHIP: EARLY CIVILIZATIONS**

The following overall expectations, and their related specific expectations, provide students with opportunities to develop an understanding of interactions between humans and the environment in early civilizations (including the role of technology) and an understanding of the relevance to the modern world of elements and discoveries from these civilizations.

- identify and compare the ways in which people in various early civilizations met their physical and social needs, including how they interacted with and used the natural environment
- use a variety of resources and tools to investigate characteristics of a number of early civilizations, including their significant innovations and technological advances
- show how innovations made by various early civilizations have influenced the modern world

## **CANADA AND WORLD CONNECTIONS: ASPECTS OF CITIZENSHIP AND GOVERNMENT IN CANADA**

The following overall expectations, and their related specific expectations, provide students with opportunities to develop the knowledge and skills required for the informed, responsible, and active citizenship that is an essential part of being environmentally literate.

- use a variety of resources and tools to gather and analyse information about government processes, the rights of groups and individuals, and the responsibilities of citizenship in Canada, including participation in the electoral process
- identify concrete examples of how government plays a role in contemporary society and of how the rights of groups and individuals and the responsibilities of citizenship apply to their own lives