# Let's Get Wild! Online Learning Module Alberta Curriculum Connections



## Grade Three

#### Science

## General Learner Expectations

- 3-10- Describe the appearance and life cycles of some common animals, and identify their adaptations to different environment.
- 3-11- Identify requirements for animal care

## Specific Learner Expectations

- Classify a variety of animals, based on observable characteristics; e.g. Limbs, teeth, body coverings, overall shape, backbone.
- Demonstrate awareness that animals require different habitats in order to meet their basic needs of food, water shelter and space.
- Identify examples of environmental conditions that may threaten animal survival, and identify examples of extinct animals.
- Recognize that habitat preservation can help maintain animal populations, and identify ways that student actions can assist habitat preservation.
- Demonstrate knowledge of the needs of animals studied, and demonstrate skills for their care.

- W-3.9 describe and apply and analyze appropriate safety behaviours in the local community; e.g. street, railway crossings, dugouts, farm equipment etc.
- L-3.6 examine the responsibilities associated with a variety of age appropriate roles; e.g. family member, friend
- L- 3.8 assess how individual contributions can have a positive influence upon the family, school, and community
- L-3.8 select and perform volunteer tasks as a class or as a group.



## Grade Four

## Social Studies

#### General Learner Expectations

• Students will demonstrate an understanding and appreciation of how elements of physical geography, climate, geology and paleontology are integral to the landscapes and environment of Alberta.

#### Specific Learner Expectations

- 4.1.1 value Alberta's physical geography and natural environment:
  - o appreciate the environmental significance of national and provincial parks and protected areas in Alberta
  - o demonstrate care and concern for the environment through their choices and actions
- 4.1.4 analyze how Albertans interact with their environment by exploring and reflecting upon the following questions and issues:
  - o Whose responsibility should it be to ensure the preservation of national parks, provincial parks and protected areas in Alberta?
- 4.3.1 appreciate the factors contributing to quality of life in Alberta:
  - o value and respect their relationships with the environment
- 4.3.4 examine recreation and tourism in Alberta by exploring and reflecting upon the following questions and issues:
  - o In what ways do interests concerning tourism and the natural environment conflict?

#### Science

## General Learner Expectations

• 4–5 Recognize that human activity can lead to the production of wastes, and identify alternatives for the responsible use and disposal of materials.

## Specific Learner Expectations

• Identify and classify wastes that result from human activity.

- R-4.9 assess how to act as important role models for others
- L-4.5 relate personal interests to various occupations



# <u>Grade Five</u>

#### Science

## General Learner Expectations

• 5-10 describe the living and nonliving components of a wetland ecosystem and the interactions within and among them

## Specific Learner Expectations

- Identify human actions that can threaten the abundance or survival or living things in wetland ecosystems; e.g. adding pollutants, changing the flow of water, trapping or hunting pond wildlife
- Identify individual and group actions that can be taken to preserve and enhance wetland habitats.
- Recognize that changes in a part of an environment have effects on the whole environment



## Grade Six

#### Social Studies

#### General Learner Expectations

• Students will demonstrate an understanding and appreciation of the dynamic relationship between governments and citizens as they engage in the democratic process.

## Specific Learner Expectations

- 6.1.6 analyze how individuals, groups and associations within a community impact decision making of local and provincial governments by exploring and reflecting upon the following questions and issues:
  - o How can individuals, groups and associations within a community participate in the decision-making process regarding current events or issues (i.e., lobbying, petitioning, organizing and attending local meetings and rallies, contacting elected representatives)?

#### Science

#### General Learner Expectations

• 6-10 Describe characteristics of trees and the interaction of trees with other living things in the local environment.

## Specific Learner Expectations

- Identify reasons why trees and forests are valued. Students meeting this expectation should be aware that forests serve as habitat for a variety of living things and are important to human needs for recreation, for raw materials and for a life-supporting environment.
- Identify human actions that enhance or threaten the existence of forests.
- Identify an issue regarding forest use, identify different perspectives on that issue, and identify actions that might be taken.

- W-6.8 analyze how laws, regulations and rules contribute to health and safety practices
- W-6.9 evaluate the impact of personal behaviour on the safety of self and others
- L-6.8 analyze and assess the impact of volunteerism in the school and community



## Grade Seven

#### Science

#### Knowledge Outcomes

- 1. Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
  - Describe examples of interaction and interdependency within an ecosystem (e.g., identify examples of dependency between species, and describe adaptations involved; identify changing relationships between humans and their environments, over time and in different cultures—as, for example, in aboriginal cultures)
  - o Identify examples of human impacts on ecosystems, and investigate and analyze the link between these impacts and the human wants and needs that give rise to them (e.g., identify impacts of the use of plants and animals as sources of food, fibre and other materials; identify potential impacts of waste products on environments)
  - Analyze personal and public decisions that involve consideration of environmental impacts, and identify needs for scientific knowledge that can inform those decisions
- 4. Describe the relationships among knowledge, decisions and actions in maintaining lifesupporting environments
  - a. Identify intended and unintended consequences of human activities within local and global environments (e.g., changes resulting from habitat loss, pest control or from introduction of new species; changes leading to species extinction)
  - b. Describe and interpret examples of scientific investigations that serve to inform environmental decision making
  - c. Analyze a local environmental issue or problem based on evidence from a variety of sources, and identify possible actions and consequences (e.g., analyze a local issue on the control of the beaver population in a nearby wetland, and identify possible consequences)

#### Skills Outcomes

#### Initiating and Planning

- Identify science-related issues (e.g., identify a specific issue regarding human impacts on environments)
- Identify questions to investigate arising from practical problems and issues (e.g., identify questions, such as: "What effects would an urban or industrial development have on a nearby forest or farming community?")



#### Attitude Outcomes

• Show interest in science-related questions and issues, and pursue personal interests and career possibilities within science-related fields (e.g., take an interest in media reports on environmental issues, and seek out further information; express an interest in conducting scientific investigations of their own design; develop an interest in careers related to environmental sciences)

- L-7.6 examine factors that may influence future life role/ education/career plans; e.g., technology, role models
- R-7.8 analyze the potential effects of belonging to a group, team, gang



# <u>Grade Eight</u>

- W-8.8 identify potentially unsafe situations in the community, and begin to develop strategies to reduce risk; e.g., dark parking lots, lack of railway crossing lights
- R-8.6 describe and provide examples of ethical behaviour in relationships; e.g., integrity
- L-8.3 identify components of ethical decision making, and apply these concepts to personal decision making
- L-8.4 begin to develop goals and priorities related to learning and future career paths, based on personal interests, aptitudes and skills
- L-8.7 relate personal knowledge and skills to potential opportunities for volunteering and providing service to others in the community



## Grade Nine

#### Science

#### Knowledge Outcomes

- 4. Identify impacts of human action on species survival and variation within species, and analyze related issues for personal and public decision making
  - describe ongoing changes in biological diversity through extinction and extirpation of native species, and investigate the role of environmental factors in causing these changes (e.g., investigate the effect of changing river characteristics on the variety of species living in the river; investigate the effect of changing land use on the survival of wolf or grizzly bear populations)
  - evaluate the success and limitations of various local and global strategies for minimizing loss of species diversity (e.g., breeding of endangered populations in zoos, development of seed banks, designating protected areas, development of international treaties regulating trade of protected species and animal parts)

#### Skills Outcomes

## Initiating and Planning

- Identify science-related issues (e.g., identify issues related to loss of species diversity)
- Identify questions to investigate arising from practical problems and issues

#### Communication and Teamwork

• defend a given position on an issue, based on their findings (e.g., defend a position on a proposed measure to protect a particular plant or animal population)

## Attitude Outcomes

- Interest in Science: Show interest in science-related questions and issues, and pursue personal interests and career possibilities within science-related fields (e.g., select and explore media on topics related to species diversity; express interest in hobbies and careers that involve the care, culture and study of living things)
- Stewardship: Demonstrate sensitivity and responsibility in pursuing a balance between the needs of humans and a sustainable environment (e.g., consider implications of changing land use on the welfare and survival of living things; identify potential conflicts between attempting to meet the wants and needs of humans and, at the same time, providing life-supporting environments for all living things; minimize environmental impact during studies by avoiding sampling that will affect an animal or plant population)



- W-9.9 analyze and evaluate laws and policies that promote personal, community and workplace safety; e.g., driving, boating, employment standards
- R-9.6 model integrity and honesty in accordance with ethical principles; e.g., develop strategies to behave in an ethical manner
- L-9.4 refine personal goals and priorities relevant to learning and career paths; e.g., investigate education programs including senior high school programs and those related to potential careers
- L-9.7 analyze the potential impact of volunteerism on career opportunities



# Senior High

## Biology 30

## Specific Learning Outcomes

- 30-D2.1k describe the basis of species interactions and symbiotic relationships and describe the influence of these interactions on population changes; i.e.,
  - o predator-prey and producer-consumer relationships
  - o symbiotic relationships: commensalism, mutualism and parasitism
  - o interspecific and intraspecific competition
- 30-D2.3k explain how mixtures of populations that define communities may change over time or remain as a climax community; i.e., primary succession, secondary succession
- 30-D2.1sts explain why Canadian society supports scientific research and technological development to facilitate a sustainable society, economy and environment (SEC4a) [ICT F2-4.2, F2-4.8]
  - o discuss public support for scientific work done on predator-prey relationships as part of wildlife management in national and provincial parks, such as the introduction of wolves
  - o identify examples of wildlife management techniques used by Aboriginal peoples
- 30-D2.1s formulate questions about observed relationships and plan investigations of questions, ideas, problems and issues
  - o plan an investigation of species interaction in a national park or wilderness area (IP-NS2, IP-NS3).

