

Grade 7

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*)
 - 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 life-supporting 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*)

Health and Life Skills

- 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

Grade 8

Health and Life Skills

- 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 9

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*)

Health and Life Skills

- 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

Urbanization & Wildlife – Curriculum Connections

- 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