

Science**K-6**

General Learner Expectation

*Students will*

1,2,3,4,5,6-4 Demonstrate positive attitudes for the study of science and for the application of science in responsible ways

Specific Learner Expectations

Students will show growth in acquiring and applying the following traits:

- Curiosity
- Respect for living things and environments, and commitment for their care

**Grade 1**

**General Learner Expectations**

*Students will*

**1-11 Describe some common living things, and identify needs of those living things**

**Specific Learner Expectations**

*Students will:*

1. Observe, describe and compare living things.
4. Classify some common local plants and animals into groups on the basis of visible characteristics: e.g., adaptations for survival, such as claws, beaks, prickles
6. Identify the requirements of animals to maintain life: ie., air, food, water, shelter, space; and recognize that we must provide these for animals in our care.
10. Give examples of ways in which animals depend on plants and ways in which plants depend on animals; e.g., particular plants may serve as a source of food and shelter, animals may help spread pollen and seeds.

**Grade 2**

**General Learner Expectations**

*Students will*

**2-10 Describe the general structure and life habits of small crawling and flying animals; e.g., insects, spiders, worms, slugs; and apply this knowledge to interpret local species that have been observed.**

Specific Learner Expectations

*Students will:*

6. Identify and give examples of ways that small animals avoid predators, including camouflage, taking cover in burrows, use of keen sense of flight.
7. Describe conditions for care of a small animal, and demonstrate responsible care in maintaining the animal for a few days or weeks.

**Grade 3**

**General Learner Expectations**

*Students will*

**3-10 Describe the appearances and life cycles of some common animals, and identify their adaptations to different environments.**

**3-11 Identify requirements for animal care.**

Specific Learner Expectations

*Students will:*

1. Classify a variety of animals, based on observable characteristics; e.g., limbs, teeth, body covering, overall shape, backbone.
6. Demonstrate awareness that animals require different habitats in order to meet their basic needs of food, water, shelter, and space.

**Grade 4, 5, 6**

General Learner Expectations

*Students will*

**4-1 Investigate the nature of things, demonstrating purposeful action that leads to inferences supported by observations.**

**4-2 Identify patterns and order in objects and events studied; and record observations, using pictures, words and charts, with guidance in the construction of charts; and make predictions and generalizations, based on observations.**

**5-2 Recognize the importance of accuracy in observation and measurements; and, with guidance, apply suitable methods to record, compile, interpret and evaluate observations and measurements.**

**6-2 Recognize the importance of accuracy in observation and measurements; and apply suitable methods to record, compile, interpret and evaluate observations and measurements.**

**Specific Learner Expectations**

*Students will:*

**Focus**

- Ask questions that lead to exploration and investigation
- Identify one of more possible answers to questions by stating a prediction or a hypothesis

**Explore and Investigate**

- Identify, with guidance, ways of finding answers to given questions

**Reflect and Interpret**

- Record observations and measurements accurately
- Identify new questions that arise from what was learned



**Science****English Language Arts****Grade 7**

**Focusing Questions:** How do human activities affect ecosystems? What methods can we use to observe and monitor changes in ecosystems, and assess the impacts of our actions?

Outcomes for Science, Technology and Society (STS) and Knowledge

*Students will:*

1. Investigate and describe relationships between humans and their environments, and identify related issues and scientific questions
  - a. 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)

**Grade 9**

**Focusing Questions:** What is biological diversity, and by what processes do diverse living things pass on their characteristics to future generations? What impact does human activity have on biological diversity?

Skill Outcomes

**Initiating and Planning**

*Students will:*

Ask questions about the relationships between and among observable variables, and plan investigations to address those questions

- Identify science-related issues
- State a prediction and a hypothesis based on background information or an observed pattern of events

**Performing and Recording**

*Students will:*

Conduct investigations into the relationships between and among observations, and gather and record qualitative and quantitative data

- Research information related to a given issue

**Analyzing and Interpreting**

*Students will:*

Analyze qualitative and quantitative data, and develop and assess possible explanation

- Identify new questions and problems that arise from what was learned

**Grade 1****1.1 Discover and Explore****Express ideas and develop understanding**

- Talk with others about something recently learned
- Make observations about activities, experiences with oral, print and other texts

**3.2 Select and Process****Use a variety of sources**

- Find information on a topic, using a variety of sources, such as books, concept books, people and field trips

**3.4 Share and Review****Share ideas and information**

- Share ideas and information from oral, print, and other media texts with familiar audiences

**Grade 2****1.1 Discover and Explore****Express ideas and develop understanding**

- Contribute relevant ideas and information from personal experiences to group language activities

**3.2 Select and Process****Use a variety of sources**

- Find information on a topic using a variety of sources, such as simple chapter books, multimedia resources, computers and elders in the community

**3.4 Share and Review****Share ideas and information**

- Share, with familiar audiences, ideas and information on topics

**Grade 3****1.1 Discover and Explore****Express ideas and develop understanding**

- Explain understanding of new concepts in own words
- Explore ideas and feelings by asking questions, talking to others and referring to oral, print and other media texts

**3.2 Select and Process****Use a variety of sources**

- Find information to answer research questions, using a variety of sources, such as children's magazines, CDROMs, plays, folk tales, songs, stories and the environment

**3.4 Share and Review****Share ideas and information**

- Organize and share ideas and information on topics to engage familiar audiences



**English Language Arts****Grade 4****1.1 Discover and Explore****Express ideas and develop understanding**

- Ask questions, paraphrase and discuss to explore ideas and understand new concepts

**2.2 Create Original Text****Generate ideas**

- Use a variety of strategies for generating and organizing ideas and experiences in oral, print and other media texts

**3.2 Select and Process****Use a variety of sources**

- Locate information to answer research questions, using a variety of sources, such as maps, atlases, charts, dictionaries, school libraries, video programs, elders in the community and field trips

**3.4 Share and Review****Share ideas and information**

- Communicate ideas and information in a variety of oral, print and other media texts, such as short report, talks and posters

**Grade 5****1.1 Discover and Explore****Express ideas and develop understanding**

- Read, write, represent and talk to explore personal understanding of new ideas and information

**3.2 Select and Process****Use a variety of sources**

- Locate information to answer research questions, using a variety of sources, such as newspapers, encyclopedias, CDROMs, a series by the same writer, scripts, diaries, autobiographies, interviews and oral traditions

**3.4 Share and Review****Share ideas and information**

- Communicate ideas and information in a variety of oral, print and other media texts, such as illustrated reports, charts, graphic displays and travelogues
- Select visuals, print and/or other media to inform and engage the audience

**Grade 6****3.2 Select and Process****Access information**

- Use a variety of tools, such as bibliographies, thesauri, electronic searches and technology to access information
- Skim, scan and read closely to gather information

**3.4 Share and Review****Share ideas and information**

- Communicate ideas and information in a variety of oral, print and other media texts, such as multiparagraph reports, question and answer formats and graphs
- Select appropriate visuals, print and/or other media to inform and engage the audience

**Grade 7****1.1 Discover and Explore****Express ideas and develop understanding**

- Reflect on own observations and experiences to understand and develop oral, print and other media texts

**2.4 Create Original Text****Generate ideas**

- Choose appropriate strategies for generating ideas and focusing topics for oral, print and other media texts

**3.2 Select and Process****Use a variety of sources**

- Obtain information from a variety of sources, such as adults, peers, advertisements, magazines, lyrics, formal interviews, almanacs, broadcasts and videos, to explore research questions

**3.4 Share and Review****Share ideas and information**

- Communicate ideas and information in a variety of oral, print and other media texts, such as reports, autobiographies, brochures and video presentations

**Grade 8****3.2 Select and Process****Use a variety of sources**

- Obtain information from a variety of courses, such as artifacts, debates, forums, biographies, autobiographies, surveys, documentaries, films, CDROMs, charts and tables, when conducting research

**3.4 Share and Review****Share ideas and information**

- Communicate ideas and information in a variety of oral, print and other media texts, such as interviews minilessons and documentaries
- Integrate appropriate visual, print and/or other media to inform and engage the audience.

**Grade 9****3.4 Share and Review****Share ideas and information**

- Communicate ideas and information in a variety of oral, print and other media texts, such as media scripts, multimedia presentations, panel discussions and articles

