

The Learning Standards listed below are addressed in the **Nature Detective—Living Science Series** through the five textbooks and teacher’s guides.

## GRADE 2

### BIG IDEAS

- Living things have life cycles adapted to their environment.
- Water is essential to all living things, and it cycles through the environment.

### LEARNING STANDARDS

*Students are expected to be able to do the following:*

#### Questioning and predicting

- Demonstrate curiosity and a sense of wonder about the world
- Observe objects and events in familiar contexts
- Ask questions about familiar objects and events
- Make simple predictions about familiar objects and events

#### Planning and conducting

- Make and record observations
- Safely manipulate materials to test ideas and predictions
- Make and record simple measurements using informal or non-standard methods

#### Processing and analyzing data and information

- Experience and interpret the local environment
- Recognize First Peoples stories (including oral and written narratives), songs, and art, as ways to share knowledge
- Sort and classify data and information using drawings, pictographs and provided tables
- Compare observations with predictions through discussion
- Identify simple patterns and connections

#### Evaluating

- Compare observations with those of others
- Consider some environmental consequences of their actions

#### Students are expected to know the following:

- metamorphic and non-metamorphic life cycles of different organisms
- similarities and differences between offspring and parent
- First Peoples use of their knowledge of life cycles
- water sources including local watersheds
- water conservation
- the water cycle
- local First People’s knowledge of water:
  - water cycles
  - conservation
  - connection to other systems

## GRADE 3

### BIG IDEAS

- Living things are diverse, can be grouped, and interact in their ecosystems.
- Wind, water, and ice change the shape of the land.

### LEARNING STANDARDS

*Students are expected to be able to do the following:*

#### Questioning and predicting

- Demonstrate curiosity and a sense of wonder about the world
- Observe objects and events in familiar contexts
- Identify questions about familiar objects and events that can be investigated scientifically
- Make predictions based on prior knowledge

#### Planning and conducting

- Suggest ways to plan and conduct an inquiry to find answers to their questions
- Consider ethical responsibilities when deciding how to conduct an experiment
- Safely use appropriate tools to make observations and measurements, using formal measurements and digital technology as appropriate
- Make observations about living and non-living things in the local environment
- Collect simple data

#### Processing and analyzing data and information

- Experience and interpret the local environment
- Identify First Peoples perspectives and knowledge as sources of information
- Sort and classify data and information using drawings or provided tables
- Use tables, simple bar graphs, or other formats to represent data and show simple patterns and trends
- Compare results with predictions, suggesting possible reasons for findings

#### Students are expected to know the following:

- biodiversity in the local environment
- the knowledge of local First Peoples of ecosystems
- energy is needed for life
- major local landforms
- local First Peoples knowledge of local landforms
- observable changes in the local environment caused by erosion and deposition by wind, water, and ice

## GRADE 4

### BIG IDEAS

- All living things sense and respond to their environment.
- The motions of Earth and the moon cause observable patterns that affect living and non-living systems.

### LEARNING STANDARDS

*Students are expected to be able to do the following:*

#### Questioning and predicting

- Demonstrate curiosity about the natural world
- Observe objects and events in familiar contexts
- Identify questions about familiar objects and events that can be investigated scientifically
- Make predictions based on prior knowledge

#### Planning and conducting

- Suggest ways to plan and conduct an inquiry to find answers to their questions
- Consider ethical responsibilities when deciding how to conduct an experiment
- Safely use appropriate tools to make observations and measurements, using formal measurements and digital technology as appropriate
- Make observations about living and non-living things in the local environment
- Collect simple data

#### Processing and analyzing data and information

- Experience and interpret the local environment
- Identify First Peoples perspectives and knowledge as sources of information
- Sort and classify data and information using drawings or provided tables
- Use tables, simple bar graphs, or other formats to represent data and show simple patterns and trends
- Compare results with predictions, suggesting possible reasons for findings

#### Students are expected to know the following:

- sensing and responding:
  - humans
  - other animals
  - plants
- biomes as large regions with similar environmental features
- local changes caused by Earth’s axis, rotation, and orbit
- the effects of the relative positions of the sun, moon, and Earth including local First Peoples perspectives