

Specific Curriculum Outcomes

Grade 6 Science: Introduction

As with science curriculum at other grades, this consists of four units: one Life science, one Earth and Space science, and two Physical science units. Grade six is an important transition year for students. They need extended practice in the processes of science inquiry. Teachers should prepare students for more sophisticated resources in grades seven and eight.

It is suggested that each unit be allocated approximately one quarter of the time available for the course.

Life Science: Diversity of Life

This unit introduces students to the variety of life forms available for observation. By making comparisons it is important to notice features that are common and those which distinguish an organism. Formal classification is more important in later grades, but developing a system to organize the variety of organisms studied is an important feature of this unit.

Physical Science: Electricity

This unit builds on previous experiences that involved electrostatic and magnetic forces. Activities are designed to show students what we recognise as electricity, how it can be controlled, and how it can be used. Description should be qualitative and encourage students to appreciate this generation, transmission and use of electrical energy.

Physical Science: Flight

Flight provides opportunities to discover the link between scientific principles and technology. In studying the effects of gravity, lift, drag and propulsion, students are drawn into questions of design and materials. A variety of factors that affect motion through a fluid are open for investigation.

Earth and Space Science: Space

This unit offers an opportunity to explain why we experience daily and seasonal change on Earth. Studying components of the solar system and beyond will generate interest in seeking better information. This necessitates travel from Earth into space. The challenges presented by space travel are an integral part of this unit.

Assessment scheme

Classwork 50%

Projects 25%

Process 25%

Term One Unit- DIVERSITY OF LIFE

Student Version of Outcomes

204-1 Propose questions that can be investigated.

204-6 Choose appropriate methods for finding answers to questions.

204-8 Choose useful tools, instruments and materials for investigations.

205-7 Record observations using notes in point form, sentences, diagrams and charts.

205-8 Find and use a variety of sources to gather useful information.

207-2 Explain procedures and results (using lists, notes in point form, sentences, charts, graphs, drawings and/or oral language).

300-19 Examine and describe some living things that cannot be seen with the naked eye.

302-12 Describe how microorganisms meet their basic needs, including obtaining food, water, and air, and moving around.

Electricity unit

Student Version of Outcomes

- 204-3** Observe a pattern of events and make a prediction.
- 204-7** Plan a set of steps to solve a practical problem and carry out a fair test.
- 204-8** Choose useful tools, instruments and materials for investigations.
- 205-1** Follow instructions to do an experiment and make sure the tests are fair (variables are controlled).
- 205-9** Use tools, instruments and materials in a safe manner.
- 207-2** Explain procedures and results (using lists, notes in point form, sentences, charts, graphs, drawings, and/or oral language).
- 303-22** Compare the characteristics of static and current electricity.
- 303-23** Compare a variety of electrical pathways by constructing simple circuits.
- 303-24** Describe the role of switches in electrical circuits.
- 303-25** Compare characteristics of series and parallel circuits.

FLIGHT UNIT

Student Version of Outcomes

- 104-5** Explain how you might get different results for the same experiment and why that might happen.
- 106-4** Describe examples of scientific ideas and discoveries that have led to new inventions and uses.
- 204-7** Plan a set of steps to solve a practical problem and carry out a fair test.
- 205-1** Follow instructions to do an experiment and make sure the tests are fair (variables are controlled).
- 205-5** Make observations and collect information that is important to the question.
- 207-2** Explain procedures and results (using lists, notes in point form, sentences, charts, graphs, drawings, and/or oral language)
- 303-33** Give examples of situations where you would see Bernoulli's principle in action.
- 303-32** Explain how lift helps overcome gravity and allows flight to happen.

SPACE UNIT

Student Version of Outcomes

205-7 Record observations using notes in point form, sentences, diagrams and charts.

206-4 Tell how useful different sources are for getting information about the solar system.

207-2 Explain procedures and results (using lists, notes in point form, sentences, charts, graphs, drawings and/or oral language)

301-19 Explain how the Earth's rotation causes day and night and how the Earth's revolution causes the seasons.

301-20 Explain how the positions of the Earth, moon and sun result in the moon phases, eclipses, and tides.

