Watercare
An Auckland Council Organisation

Learning intentions:

- To appreciate how humans can affect the quality of water in streams
- To understand that animals are suited to specific habitats
- To identify the bugs according to their features
- To carry out observations of bugs in a local waterway
- To record bugs found against a bug identification sheet

Achievement objectives

Nature of Science

LEVELS 1 AND 2

Understanding about science

- Appreciate that scientists ask questions about our world that lead to investigations and that open-mindedness is important because there may be more than one explanation.

Investigating in science

- Extend their experiences and personal explanations of the natural world through exploration, play and asking questions.

Communicating in science

- Build their language and develop their understandings of the many ways the natural world can be represented.

Participating and contributing

- Explore and act on issues and questions that link their science learning to their daily living.

LEVELS 3 AND 4

Understanding about science

- Appreciate that science is a way of explaining the world and that science knowledge changes over time.
- Identify ways in which scientists work together and provide evidence to support their ideas.

Investigating in science

- Build on prior experiences, working together to share and examine their own and others' knowledge.
- Ask questions, find evidence and carry out appropriate investigations to develop simple explanations.

Communicating in science

- Begin to use a range of scientific symbols, conventions and vocabulary.

Participating and contributing

- Use their growing science knowledge when considering issues of concern to them.
- Explore various aspects of an issue and make decisions about possible actions.

Living World

LEVELS 1 AND 2

Life processes

- Recognise that all living things have certain requirements so they can stay alive.

Ecology

- Recognise that living things are suited to their particular habitat.

EVOLUTION

- Recognise that there are lots of different living things in the world and that they can be grouped in different ways.
- Explain how we know that some living things from the past are now extinct.

WATER FOR LIFE

LEVELS 3 AND 4

Life processes

- Recognise that there are life processes common to all living things and that these occur in different ways.

Ecology

- Explain how living things are suited to their particular habitat and how they respond to environmental changes, both natural and human-induced.

Evolution

- Begin to group plants, animals and other living things into science-based classifications.
- Explore how the groups of living things we have in the world have changed over long periods of time and appreciate that some living things in New Zealand are quite different from living things in other areas of the world.

Planet Earth and beyond

LEVELS 1 AND 2

Earth systems

- Explore and describe natural features and resources.

Interacting systems

- Describe how natural features are changed and resources affected by natural events and human actions.

LEVELS 3 AND 4

Earth systems

- Appreciate that water, air, rocks, soil, and life forms make up our planet and recognise that these are also Earth's resources.
- Develop an understanding that water, air rocks, soil and life forms, make up our planet and recognise that these are also Earth's resources.

Interacting systems

- Investigate the water cycle and its effect on climate, landforms, and life.

Physical World

LEVELS 1 AND 2

Physical inquiry and physical concepts

- Explore everyday examples of physical phenomena, such as movement, forces, electricity and magnetism, light, sound, waves, and heat.
- Seek and describe simple patterns in physical phenomena.

LEVELS 3 AND 4

Physical inquiry and physics concepts

- Explore, describe, and represent patterns and trends for everyday examples of physical phenomena such as movement, forces, electricity and magnetism, light, sound, waves, and heat. For example, identify and describe the effects of forces (contact and non-contact) on the motion of objects; identify and describe everyday examples of sources of energy, forms of energy, and energy transformations.