

Year 4 Syllabus

Year Level Description

The science inquiry skills and science as a human endeavour strands are described across a two-year band. In their planning, schools and teachers refer to the expectations outlined in the achievement standard and also to the content of the science understanding strand for the relevant year level to ensure that these two strands are addressed over the two-year period. The three strands of the curriculum are interrelated and their content is taught in an integrated way. The order and detail in which the content descriptions are organised into teaching and learning programs are decisions to be made by the teacher.

Incorporating the key ideas of science

Over Years 3 to 6, students develop their understanding of a range of systems operating at different time and geographic scales.

In Year 4, students broaden their understanding of classification and form and function through an exploration of the properties of natural and processed materials. They learn that forces include non-contact forces and begin to appreciate that some interactions result from phenomena that can't be seen with the naked eye. They begin to appreciate that current systems, such as Earth's surface, have characteristics that have resulted from past changes and that living things form part of systems. They understand that some systems change in predictable ways, such as through cycles. They apply their knowledge to make predictions based on interactions within systems, including those involving the actions of humans.

Understanding

BIOLOGICAL SCIENCES

Living things have life cycles ([ACSSU072](#))

Living things depend on each other and the environment to survive ([ACSSU073](#))

CHEMICAL SCIENCES

Natural and processed materials have a range of physical properties that can influence their use ([ACSSU074](#))

EARTH AND SPACE SCIENCES

Earth's surface changes over time as a result of natural processes and human activity ([ACSSU075](#))

PHYSICAL SCIENCES

Forces can be exerted by one object on another through direct contact or from a

Human Endeavour


NATURE AND DEVELOPMENT OF SCIENCE

Science involves making predictions and describing patterns and relationships ([ACSHE061](#))

 Numeracy

USE AND INFLUENCE OF SCIENCE

Science knowledge helps people to understand the effect of their actions ([ACSHE062](#))

 Personal and social capability


 Ethical understanding

Skills

QUESTIONING AND PREDICTING

With guidance, identify questions in familiar contexts that can be investigated scientifically and make predictions based on prior knowledge ([AC SIS064](#))

 Literacy


 Critical and creative thinking

PLANNING AND CONDUCTING

With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment ([AC SIS065](#))


 Literacy


distance ([ACSSU076](#))

 Critical and creative thinking

Consider the elements of fair tests and use formal measurements and digital technologies as appropriate, to make and record observations accurately ([AC SIS066](#))

 Numeracy

 Information and Communication Technology (ICT) capability


 Personal and social capability

PROCESSING AND ANALYSING DATA AND INFORMATION

Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends ([AC SIS068](#))

 Literacy


 Numeracy

 Critical and creative thinking

Compare results with predictions, suggesting possible reasons for findings ([AC SIS216](#))

 Literacy


 Numeracy

 Critical and creative thinking

EVALUATING

Reflect on investigations, including whether a test was fair or not ([AC SIS069](#))

 Numeracy

 Critical and creative thinking

COMMUNICATING

Represent and communicate

observations, ideas and findings using formal and informal representations
[\(AC SIS071\)](#)

 Literacy

 Numeracy

Year 4 Achievement Standard

Science Understanding

At Standard, students describe how materials can be used and relate this to their observable properties. They describe how contact and non-contact forces affect interactions between objects. Students discuss how natural processes and human activity cause changes to Earth's surface. They describe relationships that assist the survival of living things and sequence key stages in the life cycle of a plant or animal.

Science as a Human Endeavour

Students identify that science is used to understand the world around them.

Science Inquiry Skills

Students follow instructions to identify investigable questions about familiar contexts and make predictions based on prior knowledge. They describe ways to conduct investigations and safely use equipment to make and record observations. Students use provided tables and construct column graphs to organise data and identify patterns. They suggest explanations for observations and compare their findings with their predictions. Students suggest reasons why a test was fair or not. They use

formal and informal ways to communicate their observations and findings.

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