Year 6 SyllabusTest

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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 6, students explore how changes can be classified in different ways. They learn about transfer and transformations of electricity, and continue to develop an understanding of energy flows through systems. They link their experiences of electric circuits as a system at one scale to generation of electricity from a variety of sources at another scale and begin to see links between these systems. They develop a view of Earth as a dynamic system, in which changes in one aspect of the system impact on other aspects; similarly, they see that the growth and survival of living things are dependent on matter and energy flows within a larger system. Students begin to see the role of variables in measuring changes and the value of accuracy in these measurements. They learn how to look for patterns and to use these to identify and explain relationships by drawing on evidence.

Science Understanding

BIOLOGICAL SCIENCES

The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)

CHEMICAL SCIENCES

Changes to materials can be reversible or irreversible (ACSSU095)

Science as a Human Endeavour

NATURE AND DEVELOPMENT OF SCIENCE

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE098)

Numeracy

Science Inquiry Skills

QUESTIONING AND PREDICTING

With guidance, pose clarifying questions and make predictions about scientific investigations (ACSIS232)

Literacy

Critical and creative thinking

PLANNING AND CONDUCTING

EARTH AND SPACE SCIENCES

Sudden geological changes and extreme weather events can affect Earth's surface (ACSSU096)

PHYSICAL SCIENCES

Electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources (ACSSU097)

USE AND INFLUENCE OF SCIENCE

Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100)

Personal and social capability

Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using equipment and materials safely and identifying potential risks (ACSIS103)

Literacy

Critical and creative thinking

Decide variables to be changed and measured in fair tests, and observe measure and record data with accuracy using digital technologies as appropriate (ACSIS104)

Literacy

Numeracy

Information and Communication Technology (ICT) capability

Critical and creative thinking

PROCESSING AND ANALYSING DATA AND INFORMATION

Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate (ACSIS107)

Literacy

Numeracy

Information and Communication Technology (ICT) capability

Critical and creative thinking

Compare data with predictions and use as evidence in developing explanations (ACSIS221)

Literacy

Numeracy

Critical and creative thinking

EVALUATING

Reflect on and suggest

improvements to scientific investigations (ACSIS108)

Literacy

Critical and creative thinking

COMMUNICATING

Communicate ideas, explanations and processes using scientific representations in a variety of ways, including multi-modal texts (ACSIS110)

Literacy

Information and Communication Technology (ICT) capability

Year 6 Achievement Standard

Science Understanding

At Standard, students compare and classify reversible and irreversible observable changes to materials. They describe how energy can be transformed from one form to another in electrical circuits and can be generated from a range of sources. Students explain how natural events cause sudden change to Earth's surface. They describe and predict the effect of environmental changes on living things.

Science as a Human Endeavour

Students explain how scientific knowledge helps us to solve problems and inform decisions and identify historical contributions.

Science Inquiry Skills

Students follow procedures to develop investigable questions and design investigations into simple relationships. They identify variables to be changed and measured and describe potential safety risks when planning methods. Students collect, organise and interpret their data, identifying where improvements to their methods or research could improve the data. They describe and analyse relationships in data using appropriate representations to communicate ideas, methods and findings.

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