Year 6 Science

ACiQ v9.0

Australian Curriculum Version 9.0: Achievement standard aligned to content descriptions

This resource shows alignment between aspects of the achievement standard and relevant content descriptions for Year 6. A similar resource is available for other year levels.

The Australian Curriculum (AC) v9.0 code for each content description includes an element indicating the strand it is organised by, e.g. AC9S6U01 indicates Science understanding strand.

Key to content description codes: Science	
e.g. **AC9SFU01** Australian Curriculum (**AC**) Version 9 (**9**) Science (**S**) Year (**6**) Strand (**U**, **H**, **I**) Content description number (**##**)	Strands: • SU — Science understanding • SHE — Science as a human endeavour • SI — Science inquiry

Year 6 Australian Curriculum: Science achievement standard

By the end of Year 6 students explain how changes in physical conditions affect living things. They model the relationship between the sun and planets of the solar system and explain how the relative positions of Earth and the sun relate to observed phenomena on Earth. They identify the role of circuit components in the transfer and transformation of electrical energy. They classify and compare reversible and irreversible changes to substances. They explain why science is often collaborative and describe different individuals' contributions to scientific knowledge. They describe how individuals and communities use scientific knowledge.

Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions. They describe risks associated with investigations and key intercultural considerations when planning field work. They identify variables to be changed, measured and controlled. They use equipment to generate and record data with appropriate precision. They construct representations to organise and process data and information and describe patterns, trends and relationships. They identify possible sources of error in their own and others' methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions. They select and use language features effectively for their purpose and audience when communicating their ideas and findings.

Achievement standard aspect	Relevant content description/s	AC v9.0 code
By the end of Year 6	**Students learn to:**	
Students explain how changes in physical conditions affect living things.	• investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions	AC9S6U01
They model the relationship between the sun and planets of the solar system and explain how the relative positions of Earth and the sun relate to observed phenomena on Earth.	• describe the movement of Earth and other planets relative to the sun and model how Earth's tilt, rotation on its axis and revolution around the sun relate to cyclic observable phenomena, including variable day and night length	AC9S6U02
They identify the role of circuit components in the transfer and transformation of electrical energy.	• investigate the transfer and transformation of energy in electrical circuits, including the role of circuit components, insulators and conductors	AC9S6U03
They classify and compare reversible and irreversible changes to substances.	• compare reversible changes, including dissolving and changes of state, and irreversible changes, including cooking and rusting that produce new substances	AC9S6U04
They explain why science is often collaborative and describe different individuals' contributions to scientific knowledge.	• examine why advances in science are often the result of collaboration or build on the work of others	AC9S6H01
They describe how individuals and communities use scientific knowledge.	• investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions	AC9S6H02
Students plan safe, repeatable investigations to identify patterns and test relationships and make reasoned predictions.	• pose investigable questions to identify patterns and test relationships and make reasoned predictions	AC9S6I01
	• plan and conduct repeatable investigations to answer questions including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place	AC9S6I02
They describe risks associated with investigations and key intercultural considerations when planning field work.	• plan and conduct repeatable investigations to answer questions including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place	AC9S6I02
They identify variables to be changed, measured and controlled.	• plan and conduct repeatable investigations to answer questions including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place	AC9S6I02
They use equipment to generate and record data with appropriate precision.	• use equipment to observe, measure and record data with reasonable precision, using digital tools as appropriate	AC9S6I03
They construct representations to organise and process data and information and describe patterns, trends and relationships.	• construct and use appropriate representations, including tables, graphs and visual or physical models, to organise and process data and information and describe patterns, trends and relationships	AC9S6I04

Achievement standard aspect	Relevant content description/s	AC v9.0 code
They identify possible sources of error in their own and others' methods and findings, pose questions for further investigation and select evidence to support reasoned conclusions.	• compare methods and findings with those of others, recognise possible sources of error, pose questions for further investigation and select evidence to draw reasoned conclusions	AC9S6I05
They select and use language features effectively for their purpose and audience when communicating their ideas and findings.	• write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate.	AC9S6I06

More information

If you would like more information, please visit the QCAA website www.qcaa.qld.edu.au. Alternatively, email the K–10 Curriculum and Assessment branch at australiancurriculum@qcaa.qld.edu.au.