

The Australian Curriculum Science



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Year 6

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/learning programs are decisions to be made by the teacher.

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 learn how look for patterns and relationships between variables. They develop explanations for the patterns they observe, drawing on evidence.

Science Understanding	Science as a Human Endeavour	Science Inquiry Skills
<p>Biological sciences</p> <p>The growth and survival of living things are affected by the physical conditions of their environment (ACSSU094)</p> 	<p>Nature and development of science</p> <p>Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena (ACSHE098)</p> 	<p>Questioning and predicting</p> <p>With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be (AC SIS232)</p> 
<p>Chemical sciences</p> <p>Changes to materials can be reversible, such as melting, freezing, evaporating; or irreversible, such as burning and rusting (ACSSU095)</p> 	<p>Important contributions to the advancement of science have been made by people from a range of cultures (ACSHE099)</p> 	<p>Planning and conducting</p> <p>With guidance, plan appropriate investigation methods to answer questions or solve problems (AC SIS103)</p> 
<p>Earth and space sciences</p> <p>Sudden geological changes or extreme weather conditions can affect Earth's surface (ACSSU096)</p> 	<p>Use and influence of science</p> <p>Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives (ACSHE100)</p> 	<p>Decide which variable should be changed and measured in fair tests and accurately observe, measure and record data, using digital technologies as appropriate (AC SIS104)</p> 

Physical sciences

Electrical circuits provide a means of transferring and transforming electricity (ACSSU097)



Energy from a variety of sources can be used to generate electricity (ACSSU219)



Scientific knowledge is used to inform personal and community decisions (ACSHE220)



Use equipment and materials safely, identifying potential risks (ACSIS105)



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)



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



Evaluating

Suggest improvements to the methods used to investigate a question or solve a problem (ACSIS108)



Communicating

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

