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| **Achievement Standards - Science** | **NOTES** |
| By the end of Year 6, students compare and classify different types of observable changes to materials. They analyse requirements for the transfer of electricity and describe how energy can be transformed from one form to another when generating electricity. They explain how natural events cause rapid change to Earth’s surface. They describe and predict the effect of environmental changes on individual living things. Students explain how scientific knowledge helps us to solve problems and inform decisions and identify historical and cultural contributions.Students follow procedures to develop investigable questions and design investigations into simple cause-and-effect relationships. They identify variables to be changed and measured and describe potential safety risks when planning methods. They 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 and construct multimodal texts to communicate ideas, methods and findings. |  |
| **Content Descriptions - Science** |
| **Science Understanding** | Biological Sciences | **The growth and survival of living things are affected by physical conditions of their environment**[**ACSSU094**](http://www.scootle.edu.au/ec/search?accContentId=ACSSU094)* ***investigating Aboriginal and Torres Strait Islander Peoples’ knowledge and understanding of the physical conditions necessary for the survival of certain plants and animals in the environment.***
* ***investigating how changing the physical conditions for plants impacts on their growth and survival such as salt water, use of fertilizers and soil types.***
* ***researching organisms that live in extreme environments such as Antarctica or a desert.***
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| **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**](http://www.scootle.edu.au/ec/search?accContentId=ACSHE098)* ***learning how Aboriginal and Torres Strait Islander Peoples’ knowledge, such as the medicinal and nutritional properties of Australian plants, is being used as part of the evidence base for scientific advances.***
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| **Science Inquiry** | Communicating | **Communicate ideas, explanations and processes using scientific representations in a variety of ways, including multi-modal texts**[**ACSIS110**](http://www.scootle.edu.au/ec/search?accContentId=ACSIS110)* ***using a variety of communication modes, such as reports, explanations, arguments, debates and procedural accounts, to communicate science ideas.***
* ***using labelled diagrams, including cross-sectional representations, to communicate ideas and processes within multi-modal texts.***
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| Questioning and predicting | **With guidance, pose clarifying questions and make predictions about scientific investigations - ACSIS232** |
| 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** |
| **General Capabilities** |  | **Cross-Curriculum Priorities** |
| **Critical and Creative Thinking** | *Inquiring – identifying, exploring and organising information and ideas*: Pose questions:* pose questions to clarify and interpret information and probe for causes and consequences

***Analysing, synthesising and evaluating reasoning and procedures:*****Apply logic and reasoning:*** **assess whether there is adequate reasoning and evidence to justify a claim, conclusion or outcome**
 | **Aboriginal and Torres Strait Islander Histories and Cultures** | **Country/Place*** Aboriginal and Torres Strait Islander communities maintain a special connection to and responsibility for Country/Place (OI.1)

**Culture*** Aboriginal and Torres Strait Islander Peoples’ ways of life are uniquely expressed through ways of being, knowing, thinking and doing. (OI.5)
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| **Intercultural Understanding** | *Recognising culture and developing respect:* Explore and compare cultural knowledge beliefs and practices:* describe and compare the knowledge, beliefs and practices of various cultural groups in relation to a specific time, event or custom
 | **Sustainability** | **Systems*** All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival. (OI.2)

**Future*** Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments. (OI.7)
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| **Literacy (level 4 to end of year 6)** | *Grammar Knowledge:* Use knowledge of sentence structures:* use simple, compound and complex sentence structures to record, explain, question, describe and elaborate ideas and events

*Word Knowledge:* Understand learning area vocabulary:* use vocabulary, including subject-specific vocabulary from a range of learning areas and vocabulary that expresses shades of meaning
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| **Numeracy** | *Interpreting statistical information:* Interpret data displays:* collect, compare, describe and interpret data as 2-way tables, double column graphs and sector graphs, including from digital media
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