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| **Achievement Standards - Science** | **NOTES** |
| [**By the end of Year 4 students identify the roles of organisms in a habitat and construct food chains.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They identify key processes in the water cycle and describe how water cycles through the environment.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They identify forces acting on objects and describe their effect.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They relate the uses of materials to their properties.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They explain the role of data in science inquiry.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They identify solutions based on scientific explanations and describe the needs these meet.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**Students pose questions to identify patterns and relationships and make predictions based on observations.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They plan investigations using planning scaffolds, identify key elements of fair tests and describe how they conduct investigations safely.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They use simple procedures to make accurate formal measurements.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They construct representations to organise data and information and identify patterns and relationships.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They compare their findings with those of others, assess the fairness of their investigation, identify further questions for investigation and draw conclusions.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They communicate ideas and findings for an identified audience and purpose, including using scientific vocabulary when appropriate.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0) |  |
| **Content Descriptions - Science** |
| **Science Understanding** | Physical Sciences | **Identify how forces can be exerted by one object on another and investigate the effect of frictional, gravitational and magnetic forces on the motion of objects** [**AC9S4U03**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4/content-description?subject-identifier=SCISCIY4&content-description-code=AC9S4U03&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0&view=quick)* ***investigating the effect of forces on the movement of objects in traditional First Nations Australians’ children’s instructive toys and games.***
 |
| Chemical Sciences | Examine the properties of natural and made materials including fibres, metals, glass and plastics and consider how these properties influence their use AC9S4U04 * *identifying and naming materials in the classroom, and grouping objects made of similar materials or combinations of materials.*
* *exploring vocabulary for describing properties; observing different fibres, metals, glass and plastics; and using appropriate terms to describe, compare and contrast their properties.*
* *considering how First Nations Australians use materials for different purposes, such as tools, clothing and shelter, based on their properties.*
* *designing, building and testing an object or structure for a specific purpose, such as a tent, lunchbox or bird feeder.*
 |
| **Science as a human endeavour** | Use and influence of science  | Consider how people use scientific explanations to meet a need or solve a problem (AC9S4H02) * *investigating how First Nations Australians of arid regions of Australia use scientific knowledge to manage precious water resources.*
* *considering how knowledges of plant biology enable First Nations Australians to sustainably harvest and use plants to make tools and weapons, musical instruments, clothing, cosmetics and artworks.*
 |
| **Science Inquiry** | Planning and conducting | Use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment (AC9S4I02) * *following safety rules when conducting investigations, such as wearing personal safety gear correctly, using equipment according to guidelines and demonstrating safe behaviours in field sites or when interacting with biological specimens.*
 |
| Communicating | Write and create texts to communicate findings and ideas for identified purposes and audiences, using scientific vocabulary and digital tools as appropriate (AC9S4I06) * *acknowledging and learning about First Nations Australians’ ways of representing and sharing information about water sources.*
* *creating posters, a song, slideshow or performance to encourage the school community to save water.*
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| **Achievement Standards - HASS** |
| [**By the end of Year 4, students describe the diversity of experiences of people in Australia prior to and following 1788.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They describe the events and causes of the establishment of the first British colony in Australia.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They describe the effects of colonisation on people and environments.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**Students describe the importance of environments, and sustainable allocation and management of resources.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They describe the importance and role of local government, community members and laws, and the cultural and social factors that shape identity.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**Students develop questions and locate, collect and record information and data from a range of sources and formats.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**They interpret and analyse information and data to identify perspectives, and draw conclusions.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**Students propose considered actions or responses.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0)[**Students use ideas from sources and relevant subject-specific terms to present descriptions and explanations.**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/hass-f-6/year-4?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0) |
| **Content Descriptions - HASS** |
| **Knowledge and understanding** | History | The diversity of First Nations Australians, their social organisation and their continuous connection to Country/Place (AC9HS4K01) * *exploring the connection of First Nations Australians to the land and water and how they manage these resources.*

 The effects of contact with other people on First Nations Australians and their Countries/Places following the arrival of the First Fleet and how this was viewed by First Nations Australians as an invasion (AC9HS4K04) * *investigating contact between First Nations Australians and people from different continents (Asia and Europe) before 1788; for example, the repulsion of the Dutch at Cape Keerweer in 1606, trade, sharing of ideas and technologies.*
 |
| **Skills** | Communicating | Present descriptions and explanations, using ideas from sources and relevant subject-specific terms (AC9HS4S07) * *using accurate and subject-appropriate terms when speaking, writing and illustrating; for example, using historical terms such as “exploration”, “navigation”, “trade”, “penal”, “transportation”, “contact” and “colonisation”; using geographical terms such as “continents”, “countries”, “natural resources”, “vegetation”, “environments”, “ecosystems”, “sustainability”, “consumption”, “waste” and “management”; and using civic terms such as “local government”, “decision-making”, “services”, “roles”, “responsibilities”, “rules”, “laws” and “belonging”.*
 |
| **General Capabilities** |  | **Cross-Curriculum Priorities** |
| **Critical and Creative Thinking** | **Inquiring:*** Identify, process and evaluate information.

**Generating:*** Create possibilities
* Consider alternatives
* Put ideas into action

**Analysing:*** Interpret concepts and problems
* Draw conclusions and provide reasons
* Evaluate actions and outcomes.

**Reflecting:*** Think about thinking (metacognition)
* Transfer knowledge
 | **Aboriginal and Torres Strait Islander Histories and Cultures** | **Country/Place*** ***First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.***
* ***The occupation and colonisation of Australia by the British, under the now overturned doctrine of terra nullius, were experienced by First Nations Australians as an invasion that denied their occupation of, and connection to, Country/Place.***

**Culture** * ***First Nations Australians’ ways of life reflect unique ways of being, knowing, thinking and doing.***
* ***The First Peoples of Australia (Aboriginal Peoples) belong to the world’s oldest continuous cultures. First Nations Australians demonstrate resilience in the maintenance, practice and revitalisation of culture despite the many historic and enduring impacts of colonisation, and continue to celebrate and share the past, present and future manifestations of their cultures.***

**People*** ***Australia has 2 distinct First Nations Peoples; each encompasses a diversity of nations across Australia. Aboriginal Peoples are the first peoples of Australia and have occupied the Australian continent for more than 60,000 years. Torres Strait Islander Peoples are the First Nations Peoples of the Torres Strait and have occupied the region for over 4,000 years.***
* ***The significant and ongoing contributions of First Nations Australians and their histories and cultures are acknowledged locally, nationally and globally.***
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| **Intercultural Understanding** | **Reflecting on culture and cultural diversity*** Reflect on the relationship between cultures and identities
* Examine cultural perspectives and worldviews
* Explore the influence of cultures on interactions
 | **Sustainability** | **Systems*** *All life forms, including human life, are connected through Earth’s systems (geosphere, biosphere, hydrosphere and atmosphere) on which they depend for their wellbeing and survival.*

**Design*** *Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.*
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| **Personal and Social Capability** | **Self-management*** Goal setting
* Perseverance and adaptability
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