|  |  |
| --- | --- |
| **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** | Biological Sciences | **Explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships** [**AC9S4U01**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4/content-description?subject-identifier=SCISCIY4&content-description-code=AC9S4U01&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0&view=quick)* ***describing how animals, including humans, obtain their food from plants and other animals.***
* ***observing living things in a local habitat and categorising them as producers, consumers or decomposers.***
* ***representing feeding relationships of producers and consumers as a food chain and comparing food chains across different habitats.***
* ***recognising how First Nations Australians perceive themselves as being an integral part of the environment.***
* ***investigating the impact of introduced predators such as foxes on small mammal species in Australia.***
* ***researching how the removal of a food source from within a habitat, such as through an insect or rodent infestation, affected other living things within that habitat.***
 |
| **Science Inquiry** | Processing, modelling and analysing | **Construct and use representations, including tables, simple column graphs and visual or physical models, to organise data and information, show simple relationships and identify patterns. AC9S4I04*** ***using virtual or role-play food chain simulations to explore effects of changing numbers of producers or consumers in a habitat.***
 |
| Communicating | **Write and create texts to communicate findings and ideas for identified purposes and audiences, using scientific vocabulary and digital tools as appropriate** [**AC9S4I06**](https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/science/year-4/content-description?subject-identifier=SCISCIY4&content-description-code=AC9S4I06&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0&view=quick)* ***sharing ideas about ways to represent feeding relationships including using drawings, labels, images or models.***
 |
| **General Capabilities** |  | **Cross-Curriculum Priorities** |
| **Critical and Creative Thinking** | Inquiring:* Identify, process and evaluate information.

Generating:* Consider alternatives.
* Put ideas into action.

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

Reflecting;* 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 First Peoples of Australia are the Traditional Owners of Country/Place, protected in Australian Law by the Native Title Act 1993 which recognises pre-existing sovereignty, continuing systems of law and customs, and connection to Country/Place. This recognised legal right provides for economic sustainability and a voice into the development and management of 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.** |
| **Intercultural Understanding** | Reflecting on culture and cultural diversity:* Examine cultural perspectives and worldviews.
 |
| **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.***
* ***Sustainable patterns of living require the responsible use of resources, maintenance of clean air, water and soils, and preservation or restoration of healthy environments.***
 |