Australian Curriculum V9.0 Alignment • Year 4 • Sustain the chain

**Year 4**

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| **Science understanding core concept:** Biological systems are interdependent and interact with each other and their environment. |
| **Sub-strand** | **Content descriptor** | **AC code** | **Achievement Standard** | **How the sequence addresses this content** |
| SHE: Nature and development of science | Examine how people use data to develop scientific explanations. | AC9S4H01 | Explain the role of data in science inquiry. | Model the impact of factors in kangaroo populations. (Lesson 5) |
| SHE: Use and influence of science  | Consider how people use scientific explanations to meet a need or solve a problem. | AC9S4H02 | Identify solutions based on scientific explanations and describe the needs these meet. | Describe how students used their understanding of a food chain to help farmers remove an invasive weed. (Lesson 7, optional) |
| SU: Biological sciences | Explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships. | AC9S4U01 | Identify the roles of organisms in a habitat and construct food chains. | Describe the roles of producers and consumers in a habitat and construct a variety of food chains. (Lessons 4, 5, 6, 7 and 8)Describe the effects of an introduced species of different food chains. (Lesson 7) |
| SI: Questioning and predicting  | Pose questions to explore observed patterns and relationships and make predictions based on observations.  | AC9S4I01 | Pose questions to explore patterns and relationships and make predictions based on observations. | Pose questions that explore patterns and relationships between living things in a habitat. (Lessons 2 - 8) |
| SI: 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 | Plan investigations using planning scaffolds, identify key elements of fair tests and describe how they conduct investigations safely. | Use a scaffold to plan a fair test into the preferred foods of ants and the use of modelling to investigate the effects of limited food, shelter and water on a kangaroo population. (Lessons 3, 5) |
| SI: Planning and conducting  | Follow procedures to make and record observations, including making formal measurements using familiar scaled instruments and using digital tools as appropriate. | AC9S4I03 | Use simple procedures to make accurate formal measurements. | Use story boarding to make accurate measurements of the preferred foods of ants and the use of modelling to quantitatively measure the effects of limited food, shelter and water on a kangaroo population. (Lessons 3, 5) |
| SI: 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  | Construct representations to organise data and information and identify patterns and relationships. | Organise information in tables and graphs to identify relationships and patterns in varying the size of a population. (Lesson 5) |
| SI: Evaluating  | Compare findings with those of others, consider if investigations were fair, identify questions for further investigation and draw conclusions. | AC9S4I05 | Compare their findings with those of others, assess the fairness of their investigation, identify further questions for investigation and draw conclusion. | Work collaboratively to identify the strengths and weaknesses of their own and others’ investigations and habitat modelling including where testing was not fair, and practices could be improved. (Lesson 3) |
| SI: Communicating  | Write and create texts to communicate findings and ideas for identified purposes and audiences, using scientific vocabulary and digital tools as appropriate. | AC9S4I06  | Communicate ideas and findings for an identified audience and purpose, including using scientific vocabulary when appropriate. | Students communicate their understanding of food chains and habitats to an audience of peers and invited guests in a classroom context selected by the teacher. (Lesson 8) |