Australian Curriculum V9.0 Alignment • Year 5 • Wear on Earth

**Year 5**

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| **Science understanding core concept:** The Earth system comprises dynamic and interdependent systems; interactions between these systems cause continuous change over a range of scales. |
| **Sub-strand** | **Content descriptor** | **AC code** | **Achievement Standard** | **How the sequence addresses this content** |
| SHE: Nature and development of science | Examine why advances in science are often the result of collaboration or build on the work of others. | AC9S5H01 | Identify examples where scientific knowledge informs the actions of individuals and communities. | Participate in Dust Watch citizen science project. (Optional: Lessons 1-8)Explore how scientific knowledge of weathering and erosion informs communities on the importance and dangers of floods and dust storms. (Lessons 6, 7) |
| SHE: Use and influence of science | Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions. | AC9S5H02 | Describe examples of collaboration leading to advances in science, and scientific knowledge that has changed over time. | Consider occupations that require an understanding of rocks and soil. (Optional: Lesson 1)Identify how farmers use soil erosion strategies to minimise soil erosion on farmland. (Lesson 7)Design, and potentially test, an erosion control strategy for an area of need in their school/local environment. (Lesson 8) |
| SU: Physical sciences | Describe how weathering, erosion, transportation and deposition cause slow and rapid changes to Earth's surface. | AC9S5U02 | Describe key processes that change Earth's surface. | Investigate and describe how weathering, erosion, transportation and deposition cause slow or rapid changes to the Earth’s surface. (Lessons 1-8) |
| SI: Questioning and predicting | Pose investigable questions to identify patterns and test relationships and make reasoned predictions. | AC9S5I01 | Plan safe investigations to identify patterns and relationships and make reasoned predictions. | Pose investigable questions relating to freeze-thaw weathering and erosion control. (Lessons 3, 8)  |
| SI: Planning and conducting | Plan and conduct repeatable investigations to answer questions, including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place. | AC9S5I02 | Identify risks associated with investigations and key intercultural considerations when planning field work. Identify variables to be changed and measured. | Plan and conduct a fair test investigation to determine variables that can affect the water volume when it changes from a liquid to a solid in the freezer. (Lesson 3)Plan and conduct a fair test investigation to determine variables that can affect water runoff or soil erosion amounts. (Lesson 8) |
| SI: Planning and conducting | Use equipment to observe, measure and record data with reasonable precision, using digital tools as appropriate. | AC9S5I03 | Use equipment to generate data with appropriate precision. | Uses appropriate measurement tools to measure the volume of liquid in a syringe and water runoff or soil erosion. (Lessons 3, 8) |
| SI: Processing, modelling and analysing | Construct and use appropriate representations, including tables, graphs and visual or physical models, to organise and process data and information and describe patterns, trends and relationships. | AC9S5I04 | Construct representations to organise data and information and describe patterns, trends and relationships. | Use modelling to explore how rocks become rounded in rivers, glaciers cause weathering and erosion, chemical weathering changes the chemical composition of rocks and how water causes changes to the landscape through erosion and deposition. (Lessons 2-6, 8)Construct data tables and graphs to record and analyse changing water volume. (Lesson 3)Use time scales to compare rates of weathering and erosion. (Lesson 7) |
| SI: Evaluating | Compare methods and findings with those of others, recognise possible sources of error, pose questions for further investigation and select evidence to draw reasoned conclusions. | AC9S5I05 | Compare their methods and findings to those of others, identify possible sources of error in their investigation, pose questions for further investigation and draw reasoned conclusions. | Share and discuss findings as a class to form conclusions and common understandings. (Lessons 2-8)Uses findings from previous tests to inform choices for subsequent erosion strategy testing. (Optional: Lesson 8) |
| SI: Communicating | Write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate. | AC9S5I06 | Use language features that reflect their purpose and audience when communicating their ideas and findings. | Label photographs to communicate prior knowledge of weathering and erosion. (Lesson 1)Create a labelled diagram explaining freeze for weathering. (Lesson 3)Create a verbal or written report explaining a local erosion issue and potential erosion control strategies for a specific audience. (Lesson 8) |