Australian Curriculum V9.0 Alignment • Year 3 • Scorching swings and slides

**Year 3**

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| **Science understanding core concept:** Energy, in the form of heat, can be transferred. | | | | |
| **Sub-strand** | **Content descriptor** | **AC code** | **Achievement Standard** | **How the sequence addresses this content** |
| SHE: Use and influence of science | Consider how people use scientific explanations to meet a need or solve a problem. | AC9S3H02 | Identify solutions that use scientific explanations. | Design an outdoor play area or piece of equipment that will still be safe to play in/on during the hottest days of summer. (Lesson 7) |
| SHE: Nature and development of science | Explain how people use data to develop scientific explanations. | ACS9S301 | Describe how people use data to develop explanations. | Use scientific explanations, supported by data, to describe the materials chosen, and how they will minimise the transfer of heat. (Lesson 7) |
| SU: Physical sciences | Identify sources of heat energy and examine how temperature changes when heat energy is transferred from one object to another. | AC9S3U03 | Identify sources of heat energy and examples of heat transfer and explain changes in the temperature of objects. | Find sources of heat in the school/home. (Lesson 2)  Investigate and represent heat transfer using standard scientific conventions. (Lessons 2, 3, and 7)  Explain how temperature changes as a result of heat transfer. (Lesson 6) |
| SI: Questioning and predicting | Pose questions to explore observed patterns and relationships and make predictions based on observations. | AC9S3I01 | Pose questions to explore patterns and relationships and make predictions based on observations. | Pose investigable questions, such as: ‘What happens to the temperature of a surface when it comes into contact with a heat source?’ in order to identify patterns. (Lessons 4, 5, and 6) |
| 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. | AC9S3I02 | Use scaffolds to plan safe investigations and fair tests. | Collaboratively design a table to support the collection of numerical data. (Lesson 2, 3) |
| 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. | AC9S3I03 | Use familiar classroom instruments to make measurements. | Explore how to use equipment such as thermometers and taking accurate readings with guidance. (Lessons 3, 4, 5, and 6) |
| 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. | AC9S3I04 | Organise data and information using provided scaffolds and identify patterns and relationships. | Use diagrammatic representation to model heat transfer. (Lessons 2, 3 and 7)  Record and represent data showing temperature change. (Lessons 3, 4, 5 and 6) |
| SI: Evaluating | Compare findings with those of others, consider if investigations were fair, identify questions for further investigation and draw conclusions. | AC9S3I05 | Compare their findings with those of others, explain how they kept their investigation fair, identify further questions and draw conclusions. | Compare findings of investigations, and identify further questions based on observations, differences, or new ideas.  Discuss factors that make investigations fair and evaluating the fairness of an investigation.  Draw conclusions based on their own and others’ findings.  (Lessons, 2, 3, 4, 5, 6 and 7) |
| SI: Communicating | Write and create texts to communicate findings and ideas for identified purposes and audiences, using scientific vocabulary and digital tools as appropriate. | AC9S3I06 | Communicate ideas and findings for an identified purpose, including using scientific vocabulary when appropriate. | Present play area/equipment solutions using explanations appropriate for audience and identifying the appropriate actions for that audience. e.g. Writing to local council about modifying existing playgrounds, presenting findings to the school’s parent association/principal encouraging the installation of new play equipment, creating a campaign to educate fellow students on ways to minimise exposure to excess heat when playing on sunny days. (Lesson 7) |