Science and technology K-6 sample scope and sequence

## Learning overview

### Stage 1 – odd year

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|  | Outcomes | Learning overview |
| Term 1 | Design and production: ST1-3DP-T  Digital technologies: ST1-11DI-T | Focus – digital technologies  Students explore digital systems and their components. They use design and production skills to develop sequences of steps and instructions/decisions (algorithms) to solve problems. There are opportunities to integrate with mathematics (position) or English (writing and reading procedures and instructions). |
| Term 2 | Working scientifically: ST1-1WS-S  Design and production: ST1-2DP-T  Earth and space: ST1-10ES-S  Digital technologies: ST1-11DI-T | Focus – Earth and space and digital technologies  Students work scientifically to investigate the observable changes that occur in the sky and landscape. They use digital technologies to represent and analyse data and communicate their findings using digital systems. There are opportunities to integrate with mathematics (chance and data) and geography (features of places). |
| Term 3 | Working scientifically: ST1-1WS-S  Living world: ST1-4LW-S  Digital technologies: ST1-11DI-T | Focus – living world and digital technologies  Students work scientifically to investigate the features of living things, their environment and how they change and reproduce. They use digital technologies to represent and analyse data. |
| Term 4 | Working scientifically: ST1-1WS-S  Design and production: ST1-2DP-T  Material world: ST1-7MW-T  Physical world: ST1-8PW-S | Focus – material world and physical world  Students work scientifically to investigate the identification of light and heat energy, and how they are sensed and produced. They apply their design and production skills to develop a design solution demonstrating the suitability of materials for a purpose. There are opportunities to integrate with PDHPE (healthy, safe and active lifestyles - sun safety). |

### Stage 1 – even year

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|  | Outcomes | Learning overview |
| Term 1 | Design and production: ST1-3DP-T  Digital technologies: ST1-11DI-T | Focus – digital technologies  Students explore digital systems and their components. They use design and production skills to write and record sequences of steps and instructions/decisions (algorithms) to solve problems. There are opportunities to integrate with mathematics (position) or English (writing and reading procedures and instructions). |
| Term 2 | Working scientifically: ST1-1WS-S  Earth and space: ST1-10ES-S  Living world: ST1-5LW-T | Focus – Earth and space and living world  Students explore how the Earth’s resources are used and investigate their conservation. They investigate how plants and animals are used to satisfy our needs for food and fibre. |
| Term 3 | Design and production: ST1-2DP-T  Design and production: ST1-3DP-T  Material world: ST1-6MW-S, ST1-7MW-T | Focus – material world  Students examine how materials can be changed, manipulated and combined. They develop a design solution demonstrating the suitability of materials for a purpose and write and record sequences and instructions. There is scope to build on Term 2 knowledge around resources, food and fibre, There are opportunities for integration with PDHPE (healthy, safe and active lifestyles - healthy foods) and English (writing and reading procedures and instructions). |
| Term 4 | Working scientifically: ST1-1WS-S  Design and production: ST1-2DP-T  Physical world: ST1-8PW-S  Physical world: ST1-9PW-ST  Material world: ST1-7MW-T  Digital technologies: ST1-11DI-T | Focus – physical world and material world  Students work scientifically to explore sound energy, and how it is sensed and produced. They investigate products that utilise sound energy (e.g. musical instruments) as well as how sound energy is recorded and represented by digital systems. They engage in a design and production task to develop a solution that uses forces and sound energy. There are opportunities to integrate with creative arts (music). |

[Science and Technology K-6 Syllabus (2017)](https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/science/science-and-technology-k-6-new-syllabus) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales.