Science and technology K-6 sample scope and sequence

## Semester-based

### Early Stage 1

#### Semester 1

##### Living world, Earth and space and digital technologies

Early Stage 1 of the living world strand focuses on living things, their characteristics, needs, behaviours, and the environment in which they live. Students explore how plants and animals satisfy our needs by providing us with the resources for the production of food and fibre. The Earth and space strand focuses on daily and seasonal changes in the environment. Students investigate how living things respond to these changes in the environment. The digital technologies strand focuses on digital systems and how they are used to communicate. Students explore how algorithms can be used to solve problems.

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| Outcomes | Focus |
| STe-1WS-S – observes, questions and collects data to communicate and compare ideas  STe-2DP-T – develops solutions to an identified need  STe-3LW-ST – explores the characteristics, needs and uses of living things  STe-6ES-S – identifies how daily and seasonal changes in the environment affect humans and other living things  STe-7DI-T – identifies digital systems and explores how instructions are used to control digital devices | Characteristics and basic needs of living things  Inquiry question: What do we notice about living things?  Using living things as food and fibre  Focus question: How can living things be used to meet our needs?  Changes in the environment  Inquiry question: How do daily and seasonal changes affect the environment?  Digital systems  Focus question: How are digital technologies used in everyday life?  Sequencing instructions  Focus question: How does following steps help to achieve a goal? |

#### Semester 2

##### Material world, physical world and digital technologies

Early Stage 1 of the material world strand focuses on the observable properties of materials and how they can be used for making useful products. Students investigate how the properties of materials determine their use in design solutions. The physical world strand focuses on the physical characteristics of objects and the effects of these on how they move. Students investigate how push and pull forces create movement and introduces the fundamental concepts of force and motion. The digital technologies strand focuses on digital systems and how they are used to communicate. Students explore how algorithms can be used to solve problems.

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| Outcomes | Focus |
| STe-1WS-S – observes, questions and collects data to communicate and compare ideas  STe-2DP-T – develops solutions to an identified need  STe-4MW-ST – identifies that objects are made of materials that have observable properties  STe-5PW-ST – observes the way objects move and relates changes in motion to push and pull forces  STe-7DI-T – identifies digital systems and explores how instructions are used to control digital devices | Movement of objects  Inquiry question: What causes objects to move in different ways?  Properties of materials can be observed  Inquiry question: What are some of the observable properties of materials?  Materials are selected to suit specific purposes  Focus question: How do the properties of materials affect their use?  Digital systems  Focus question: How are digital technologies used in everyday life?  Sequencing instructions  Focus question: How does following steps help to achieve a goal? |

[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.