Science and technology K-6 sample scope and sequence

## Year-level based

### Kindergarten

#### Term 1 – material world

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|  | Early Term 1 | Later Term 1 |
| Content focus | Kindergarten students focus on the observable properties of materials and how they can be used to make useful products. | Students investigate how the properties of materials determine their use in design solutions. |
| Focus and inquiry skills | What are some of the observable properties of materials? | How do the properties of materials affect their use? |
| Skills outcomes | Working scientifically **STe-1WS-S** observes, questions and collects data to communicate ideas | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas  Design and production **STe-2DP-T** – develops solutions to an identified need |
| Knowledge and understanding outcomes | Material world **STe-4MW-ST** – identifies that objects are made of materials that have observable properties | Material world **STe-4MW-ST** – identifies that objects are made of materials that have observable properties |

#### Term 2 – living world and digital technologies

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|  | Early Term 2 | Later Term 2 |
| Content focus | Kindergarten students focus on living things, their characteristics, needs behaviours and the environment in which they live. Students investigate how digital systems are used to communicate. | Kindergarten students focus on living things, their characteristics, needs behaviours and the environment in which they live. Students investigate how digital systems are used to communicate. |
| Focus or inquiry questions | What do we notice about living things?  How are digital technologies used in everyday life? | How can living things be used to meet our needs?  How does following steps help to achieve a goal? |
| Skills outcomes | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas  Design and production **STe-2DP-T** – develops solutions to an identified need |
| Knowledge and understanding outcomes | Living world **STe-3LW-ST** – explores the characteristics, needs and uses of living things.  Digital technologies **STe-7DI-T** – identifies digital systems and explores how instructions are used to control digital devices | Living world **STe-3LW-ST** – explores the characteristics, needs and uses of living things  Digital technologies **STe-7DI-T** – identifies digital systems and explores how instructions are used to control digital devices |

#### Term 3 – physical world

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|  | Early Term 3 | Later Term 3 |
| Content focus | Kindergarten students focus on the physical characteristics of familiar objects and the effects of these on how they move. | Students investigate how push pull forces create movement and the fundamental concepts of force and motion. |
| Focus or inquiry questions | How do familiar objects move in different ways? | What causes objects to move in different ways and how are objects affected by forces? |
| Skills outcomes | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas  Design and production **STe-2DP-T** – develops solutions to an identified need |
| Knowledge and understanding outcomes | Physical world **STe-5PW-ST** – observes the way objects move and relates changes in motion to push pull forces | Physical world **STe-5PW-ST** – observes the way objects move and relates changes in motion to push pull forces |

#### Term 4 – Earth and space and digital technologies

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|  | Early Term 4 | Later Term 4 |
| Content focus | Kindergarten students focus on daily and seasonal changes in the environment. Students focus on digital systems and how they are used to communicate. | Students investigate how living things respond to these changes in the environment and understand the Earth as having interrelated systems. Students explore how algorithms can be used to solve problems. |
| Focus or inquiry questions | What types of daily and seasonal changes affect the environment?  How are digital technologies used in everyday life? | How do objects and living things respond to changes in the environment?  How does following steps help to achieve a goal? |
| Skills outcomes | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas | Working scientifically **STe-1WS-S** – observes, questions and collects data to communicate ideas  Design and production **STe-2DP-T** – develops solutions to an identified need |
| Knowledge and understanding outcomes | Earth and space **STe-6ES-S** – identifies how daily and seasonal changes in the environment affect humans and other living things  Digital technologies **STe-7DI-T** – identifies digital systems and explores how instructions are used to control digital devices | Earth and space **STe-6ES-S** – identifies how daily and seasonal changes in the environment affect humans and other living things  Digital technologies **STe-7DI-T** – identifies digital systems and explores how instructions are used to control digital devices |

[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.