

# NSW Syllabus

Information and Communication  
Technology capabilities across the K-6  
curriculum

# ICT and the New NSW Syllabus Documents

Students live in a rapidly changing technological world. Information and communication technology (ICT), including hardware and personal digital devices, software, and systems that manage, store, process, create, produce and communicate information, has become an important part of everyday life. The integration of ICT capabilities in teaching, learning and assessment in NSW syllabuses can lead to enhanced outcomes for students, and:

- support the interactive process of teaching, learning and assessment in NSW schools
- develop the knowledge, skills, understanding, attitudes and behaviours to assist students to live and work successfully in the 21st century.

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# The role of ICT in Teaching, Learning and Assessment

The integration of ICT can support a range of teaching, learning and assessment approaches that:

- enhance learning opportunities through access to a range of resources, stimulus materials and learning tools
- provide increased opportunities for student engagement and motivation
- equip students with the necessary knowledge and skills to use ICT to support 21st-century learning
- support the development of effective student research and evaluation skills
- promote critical and creative thinking skills
- increase teacher and student efficiency
- develop awareness of the public nature of online activity and related responsibilities
- increase opportunities to work collaboratively, locally, nationally and globally.

# Responsible use of ICT

How ICT is used, and the impact of ICT on individuals, groups, local and global communities and organisations, is an important factor in teaching, learning and assessment. Practices underpinning the responsible use of ICT include:

- respect for and appreciation of the transferability of the knowledge, understanding and skills from one ICT environment to another; for example, from school to community to workplace
- balance in the use of ICT to support contemporary learning and living
- appreciation of the rapidly expanding and dynamic nature of ICT
- appreciation of the importance and value of individual responsibility and actions
- respect for, and appreciation of, social and ethical protocols and practices
- appreciation of the public nature of most online activities and the potential impact on others, including limiting the risks to one's self and others in a digital environment.

Teachers continue to have a central role in teaching students to use ICT strategically to optimise their learning, and promote opportunities through connectedness and digital media. Teachers should evaluate the suitability of ICTs, including particular ICT use, and consider how this may vary based on the:

- syllabus outcome(s) and content being addressed
- development of knowledge, understanding and skills
- learning and assessment activity
- level of expertise of the students
- accessibility to materials, including a range of devices and applications
- appropriateness of the ICT tool to enhance teaching and learning.

# Applying ICT

When planning, teachers may consider the application of a range of ICT tools and resources to support teaching, learning and assessment. Teachers will identify tools and resources for use by students based on specific learning needs, such as:

- multimedia creation tools, including cameras, microphones and audio editing programs
- programming tools
- game-based learning and game development opportunities
- online collaboration tools, including blogs and wikis
- web 2.0 and web 3.0 tools
- GPS, geo-tagging, geographic information systems
- Simulations
- electronic portfolios
- productivity tools, including word processing, databases, spreadsheets, graphic editing
- interactive manipulatives, such as interactive geometry applications
- contextualised learning experiences, including robotics, 3D modelling, virtual learning environments (including field trips), web quests.



# Early Stage One

# Early Stage One: English

## Writing & Representing I (Ene-2A)

- develop an awareness of issues relating to the responsible use of digital communication
  - [Using Technology in the Classroom lesson](#)
  - [Hector's World](#)
- experiment with basic [visual, multimodal](#) and digital processes to represent some simple ideas expressed in [texts](#) and to convey experiences
  - use images, words, sound and/or multimedia tools to create text

## Writing & Representing II (Ene-7B)

- demonstrate an awareness of written forms of communication, including [labels](#), [symbols](#), [emails](#), letters and photographs

## Handwriting & Using Digital Technologies (ENe-3A)

- use simple functions of keyboard and mouse, including typing letters, scrolling, selecting icons and dropdown menus
  - use a keyboard or inbuilt screen keyboard to type words (both known and unknown)
  - use a mouse or finger to scroll through a page; select icons on a screen
- experiment using digital technologies, eg produce own name, commonly used words and simple sentences
  - use an app to practise spelling high frequency words
  - use magnetic letters to form words (iPad app or smartboard tool)
- construct texts using software including word processing programs
  - Use Word or Google Docs to publish a text
  - Use an app to capture image of a book then record or write over the image with your text prediction

## Reading & Viewing I (ENe-4A)

- understand concepts about print and screen, including how books, film and simple digital texts work, and know some features of print, for example [directionality](#)
  - explore directionality and concepts of print in digital books (iBooks, reading apps)

## Reading & Viewing 2 (ENe-8B)

- recognise parts of print and [digital texts](#), eg front and back covers, title and author, layout and navigation
  - explore parts of a digital text and compare to parts of a printed text

## Thinking Imaginatively & Creatively (ENe-10C)

- retell familiar literary texts through performance, use of illustrations and images
  - draw image, scan and copy into a Google Doc. Add descriptive text and convert to pdf. or ePub
  - alternatively:
  - draw image, scan and copy into a Google Slide. Add descriptive text and voice to tell and then present story

## Expressing Themselves (ENe-11D)

- use visual, [multimodal](#) and digital processes to represent simple aspects of home and community life
  - draw image of family, scan and copy into a Google Doc. Add descriptive text and convert to pdf. or ePub
- respond to texts that depict aspects of home and community life, eg short films and [digital texts](#)
  - [Literacy Shed](#)
- respond to Dreaming stories, eg stories from local Aboriginal and Torres Strait Islander communities
  - [Dust Echoes](#)
  - [Aboriginal Stories & Paintings](#)
- respond to [literature](#) and a variety of other texts from a range of storytellers and cultures, using [picture books](#) and online sources

# Early Stage One: Mathematics

## Number and Algebra

### Whole Number: (MAe-4NA)

- recognise numbers in a variety of contexts, eg classroom charts, cash register, computer keyboard, telephone (Communicating)
  - identify numbers on a keyboard
  - type numbers on a screen → to identify, ascending or descending order, to a specified amount

### Patterns & Algebra: (MAe-8NA)

- create or continue a repeating pattern using simple computer graphics (Problem Solving)
  - use an app or program to draw a repeating pattern → e.g. using Word or Google Docs and insert and create a shape pattern, colour pattern

## Measurement and Geometry

### Area: (MAe-10MG)

- use computer software to draw a closed shape, colouring in the area (Communicating)
  - use an app or program to draw a shape and add colour → add text to name the shape

### Two-Dimensional Space: (MAe-15MG)

- make representations of two-dimensional shapes using a variety of materials, including paint, paper, body movements and computer drawing tools
  - use an app or program to draw a 2D shape → add text to name the shape

### Position: (MAe-16MG)

- direct simple computer-controlled toys and equipment to follow a path (Communicating)
  - Bee-Bot app
  - Hopscotch app
  - Coding – basic projects
    - [code.org](https://code.org)
    - [scratch](https://scratch.mit.edu)

# Early Stage One: History & Geography

## History

### Personal & Family Histories: (HTe-1 and HTe-2)

use a variety of sources including photographs or a treasured object from their homes, to recount stories about their families and discuss how sources are used to answer the question 'How do we know?'

- take images of family or objects and record story either in words or audio and share → use Google Slides or apps (create a popplet then use telegami to voice over)

## Geography

### People Live in Places: (GEe-1 and GEe-2)

location of familiar and local places on maps

- use Google Maps or Earth to locate familiar places
- take or view photographs of familiar places
- K-6 Geography Skills Toolbox

# Early Stage One: Science & Technology & PDHPE

Science & Technology		Personal Development, Health & Physical Education
<p><u>Living World</u> (STe-3LW-ST)</p> <p>Using living things as food and fibre</p> <p><input type="checkbox"/> explore a range of foods obtained from plants and animals, for example:</p> <ul style="list-style-type: none"><li>▪ customary Aboriginal and Torres Strait Islander foods</li><li>▪ foods from a range of cultures, e.g. African, American, German, Indian, Japanese</li></ul>	<p><u>Physical World</u> (STe-5PW-ST)</p> <p>Movement of Objects</p> <p><input type="checkbox"/> participate in guided investigations to explore how particular objects move on land, water and/or in the air, and how these objects are affected by forces</p>	<p><u>Digital Technologies</u> (Ste-7DI-T)</p> <p>Digital Systems &amp; Sequencing Instructions</p> <p><input type="checkbox"/> explore familiar digital devices, for example:</p> <ul style="list-style-type: none"><li>▪ a computer</li><li>▪ a device to take a digital image</li></ul> <p><input type="checkbox"/> explore how people use digital systems to communicate</p> <p><input type="checkbox"/> follow and describe a sequence of steps (algorithms), for example:</p> <ul style="list-style-type: none"><li>▪ following a procedure, eg getting dressed for school in the morning</li><li>▪ following a recipe, eg baking a cake</li></ul> <p><input type="checkbox"/> design a process to solve an identified problem, for example:</p> <ul style="list-style-type: none"><li>▪ set of instructions to get from one point to another</li><li>▪ set of instructions to log on to a computer</li></ul>

\*Due for implementation 2019/2020

The background features a dynamic, abstract pattern of overlapping blue and teal geometric shapes, including diamonds and rounded rectangles, set against a white surface with fine diagonal lines.

# Stage One

# Stage One: English

## Writing & Representing I (ENI-2A)

- develop an awareness of issues relating to the responsible use of digital communication
  - [Hector's World](#)
  - [Using Technology in the Classroom lesson](#)
- create short imaginative, informative and persuasive texts using growing knowledge of text structures and language features for familiar and some less familiar audiences, selecting print and multimodal elements appropriate to the audience and purpose
- compose a range of written forms of communication, including emails, greeting cards and letters
  - gmail
- experiment with publishing using different modes and media to enhance planned presentations
  - Word, Google Docs
  - Powerpoint, Google Slides
  - Various apps

## Handwriting & Using Digital Technologies (ENI-3A)

- construct texts featuring print, visual and audio elements using software, including word processing programs
  - type text, including visual and audio elements using Google Docs, Word or an app

## Reading & Viewing I (ENI-4A)

- use comprehension strategies to build literal and inferred meaning and begin to analyse texts by drawing on growing knowledge of context, language and visual features and print and multimodal text structures
  - use apps (e.g. Popplet and Telegrame) to create a multimodal summary of a book
  - create a drawing of an aspect of text using an app or Google Drawing

## Thinking Imaginatively & Creatively (ENI-10C)

- recreate texts imaginatively using drawing, writing, performance and digital forms of communication
  - green screen an interpretation of a text

## Speaking & Listening (ENI-6B)

- develop an understanding of different forms of communication technologies available for hearing and visually impaired people and people with other disabilities
  - use a page reader Chrome-extension to read websites for students
  - FM Radio's for students with hearing difficulties

## Reading & Viewing 2 (ENI-8B)

- understand concepts about print and screen, including how different types of texts are organised using page numbering, tables of content, headings and titles, navigation buttons, bars and links
- know some features of text organisation including page and screen layouts, alphabetical order, and different types of diagrams, for example timelines

## Expressing Themselves (ENI-11D)

- compose simple print, visual and digital texts that depict aspects of their own experience
  - recount an experience, type using Google Docs, Word or an app, include images
- respond to a range of texts, eg short films, documentaries and digital texts, that include issues about their world, including home life and the wider community
  - [Literacy Shed](#)
  - [Behind the News](#)

# Stage One: Mathematics

## Measurement and Geometry

## Statistics & Probability

<u>Length:</u> (MA I-9MG)	<u>Area:</u> (MA I-10MG)	<u>Three-Dimensional Space:</u> (MA I-14MG)	<u>Two-Dimensional Space:</u> (MA I-15MG)	<u>Position:</u> (MA I-16MG)	<u>Data:</u> (MA I-17SP)
<p><input type="checkbox"/> use computer software to draw a line and use a simple graphic as a uniform informal unit to measure its length (Communicating)</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul>	<p><input type="checkbox"/> use computer software to create a shape and use a simple graphic as a uniform informal unit to measure its area (Communicating)</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul>	<p><input type="checkbox"/> choose a variety of materials to represent three-dimensional objects, including digital technologies (Communicating)</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul>	<p><input type="checkbox"/> use computer drawing tools to outline shapes embedded in a digital picture or design (Communicating)</p> <ul style="list-style-type: none"> <li>▪ screenshot, save or capture an image. Use an app or Google app to identify shapes and outline them</li> </ul> <p><input type="checkbox"/> draw and name two-dimensional shapes in different orientations, with and without the use of digital technologies</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul> <p><input type="checkbox"/> record the result of performing one-step slides and flips, with and without the use of digital technologies</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul> <p><input type="checkbox"/> copy and manipulate a shape using the computer functions for slide and flip (Communicating)</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul> <p><input type="checkbox"/> copy and manipulate a shape using the computer function for turn (Communicating)</p> <ul style="list-style-type: none"> <li>▪ use apps or Google Docs, Slides, Sheets, Drawing</li> </ul>	<p><input type="checkbox"/> create a path from one location to another using computer software (Communicating)</p> <ul style="list-style-type: none"> <li>▪ Bee-Bot app</li> <li>▪ Hopscotch app</li> <li>▪ Robotics</li> </ul>	<p><input type="checkbox"/> use digital technologies to create picture graphs (Communicating)</p> <ul style="list-style-type: none"> <li>▪ Google Sheets or Excel</li> </ul>

# Stage One: History & Geography

## History

### Present & Past Family Life:

(HT I-1 and HT I-4)

- discuss similarities and differences from generation to generation, eg family celebrations and traditions, leisure activities and changes in technology/communications over time through a range of sources
  - photographic representation
  - use of apps or Google Apps suite to present information

### The Past in the Present:

(HT I-2, HT I-3 and HT I-4)

- investigate an aspect of local history
  - photographic representation
  - use of apps or Google Apps suite to present information
- use a range of communication forms to explain how one example of changing technology affected people's lives

## Geography

### Features of Places:

(GE I-1, GE I-2 and GE I-3)

- examination of why various activities in an area are located where they are eg school, shops
  - use Google Maps or Google Earth → virtual fieldtrip
  - photographic representation
  - [K-6 Geography Skills Toolbox](#)

### People and Places:

(GE I-1 and GE I-3)

- description of Australia's location in relation to the world eg continents, oceans
  - use Google Maps or Google Earth to describe location
  - screenshot map of world & use app to describe → text or audio
  - [K-6 Geography Skills Toolbox](#)

# Stage One: Science & Technology & PDHPE

Science & Technology		Personal Development, Health & Physical Education
<p><u>Living World</u> (ST I-4LW-S &amp; ST I-5LW-T)</p> <p><b>Living things change</b></p> <p><input type="checkbox"/> record the changes in growth of a common plant or animal, using uniform informal units and appropriate technologies</p> <p><b>Plants &amp; animals used for food &amp; fibre</b></p> <p><input type="checkbox"/> identify some plants and animals that are grown and used for food production</p> <p><input type="checkbox"/> explore the plants and animals used in customary practices of Aboriginal and Torres Strait Islander Peoples</p> <p><input type="checkbox"/> investigate ways people use scientific and technological knowledge and skills to sustainably grow plants and animals to produce fibre for clothing and/or shelter</p>	<p><u>Earth and Space</u> (ST I-10ES-S)</p> <p><b>Changes in the sky &amp; on the land</b></p> <p><input type="checkbox"/> record the observable changes that occur in the sky and on the land, for example:</p> <ul style="list-style-type: none"><li>▪ patterns in the position of the Sun across a day</li><li>▪ the appearance of the Moon and stars at night</li><li>▪ changes in the shape of the Moon</li></ul> <p><input type="checkbox"/> collect data related to short-term weather events and long-term seasonal patterns, to inform others using appropriate communication techniques</p>	<p><u>Digital Technologies</u> (ST I-11IDI-T)</p> <p><b>Digital systems &amp; their components</b></p> <p><input type="checkbox"/> identify hardware and software components of digital systems</p> <p><input type="checkbox"/> identify a variety of uses for digital systems</p> <p><input type="checkbox"/> communicate, collaborate and share information safely, using digital systems,</p> <p><b>Representation &amp; analysis of data</b></p> <p><input type="checkbox"/> collect, explore and sort data, and use digital systems to present the data creatively</p> <p><input type="checkbox"/> explore and identify patterns in data</p> <p><b>Writing &amp; recording sequences &amp; instructions</b></p> <p><input type="checkbox"/> follow and represent sequences of steps and decisions (algorithms) to solve problems,</p> <p><input type="checkbox"/> test and evaluate the effectiveness of steps and decisions (algorithms) in solving a problem</p>

\*Due for implementation 2019/2020

The background features a repeating pattern of overlapping blue and white shapes, resembling stylized leaves or petals, creating a sense of depth and motion.

# Stage Two

# Stage Two: English

Writing & Representing I (EN2-2A)	Handwriting & Using Digital Technologies (EN2-3A)	Reading & Viewing II (EN2-8B)	Thinking Imaginatively & Creatively (EN2-10C)
<p><input type="checkbox"/> discuss issues related to the responsible use of digital communication</p> <ul style="list-style-type: none"> <li>▪ digital citizenship mini-lessons</li> <li>▪ <a href="#">Budde</a></li> <li>▪ <a href="#">Cyber[smart.]</a> lessons → cyberbullying, balancing time online, digital citizenship</li> </ul> <p><input type="checkbox"/> plan, draft and publish imaginative, informative and persuasive texts containing key information and supporting details for a widening range of audiences, demonstrating increasing control over text structures and language features</p> <ul style="list-style-type: none"> <li>▪ green screen</li> <li>▪ Google Docs, Word</li> <li>▪ Google Slides, Powerpoint</li> <li>▪ Convert to pdf or ePub (import to iBooks)</li> </ul> <p><input type="checkbox"/> create imaginative texts based on characters, settings and events from students' own and other cultures using <a href="#">visual features</a>, for example perspective, distance and angle</p> <p><input type="checkbox"/> experiment with visual, <a href="#">multimodal</a> and digital processes to represent ideas encountered in texts</p> <ul style="list-style-type: none"> <li>▪ <a href="#">padlet</a></li> </ul> <p><input type="checkbox"/> reread and edit texts for meaning, appropriate structure, grammatical choices and punctuation</p> <ul style="list-style-type: none"> <li>▪ spellcheck</li> </ul>	<p><input type="checkbox"/> use a range of software including word processing programs to construct, edit and publish written text, and select, edit and place visual, print and audio elements</p> <ul style="list-style-type: none"> <li>▪ Google Docs, Word</li> <li>▪ Google Slides, Powerpoint</li> </ul>	<p><input type="checkbox"/> explore the effect of choices when <a href="#">framing</a> an image, placement of elements in the image, and <a href="#">salience</a> on <a href="#">composition</a> of still and moving images in a range of types of texts</p> <p><input type="checkbox"/> identify the features of online texts that enhance navigation</p> <p><input type="checkbox"/> identify features of online texts that enhance readability including text, navigation, links, graphics and <a href="#">layout</a></p> <p><input type="checkbox"/> identify and interpret the different forms of visual information, including maps, tables, charts, diagrams, <a href="#">animations</a> and images</p>	<p><input type="checkbox"/> use visual representations, including those digitally produced, to represent ideas, experience and information for different <a href="#">purposes</a> and <a href="#">audiences</a></p> <ul style="list-style-type: none"> <li>▪ sketchnote</li> </ul> <p><b>Expressing Themselves (EN2-11D)</b></p> <p><input type="checkbox"/> experiment with visual, multimodal and digital technologies to represent aspects of experience and relationships</p> <p><input type="checkbox"/> respond to short films, documentaries and multimedia texts that express familiar and new aspects of the broader world</p>

# Stage Two: Mathematics

## Number & Algebra

## Measurement and Geometry

## Statistics & Probability

### Multiplication & Division: (MA2-6NA)

- select, use and record a variety of mental strategies, and appropriate digital technologies, to solve simple multiplication problems
  - calculator
- create a table or simple spreadsheet to record multiplication facts, eg a  $10 \times 10$  grid showing multiplication facts
  - Google sheets, Excel
- check the answer to a word problem using digital technologies
  - calculator

### Time: (MA2-13MG)

- explore and use the various date input and output options of digital technologies

### Three-Dimensional Space: (MA2-14MG)

- draw three-dimensional objects using a computer drawing tool, attempting to show depth
- investigate different two-dimensional representations of three-dimensional objects in the environment, e.g. in Aboriginal art

### Two-Dimensional Space: (MA2-15MG)

- use digital technologies to construct a design or logo by combining common shapes (Communicating)
- record the arrangements of common shapes used to create other shapes, and the arrangement of shapes formed after splitting a shape, in diagrammatic form, with and without the use of digital technologies
- use digital technologies to create designs by copying, pasting, reflecting, translating and rotating common shapes (Communicating, Problem Solving)
- use digital technologies to create tessellating designs (Communicating)
- draw the reflection (mirror image) to complete symmetrical pictures and shapes, given a line of symmetry, with and without the use of digital technologies

### Position: (MA2-17MG)

- create simple maps and plans using digital technologies (Communicating)
- use digital technologies involving maps, position and paths (Communicating)

### Data: (MA2-18SP)

- use computer software to create a table to organise collected data, e.g a spreadsheet
- use graphing software to enter data and create column graphs that represent data
- use data in a spreadsheet to create column graphs with appropriately labelled axes
- interpret and evaluate the effectiveness of various data displays found in media and in factual texts, where displays represent data using a scale of many-to-one correspondence
  - Google sheets, Excel

# Stage Two: History & Geography

## History

### Community & Remembrance:

(HT2-1, HT2-2 and HT2-3)

- using a range of sources, describe and explain how and why ONE area, eg transport, work, education, entertainment and daily life, has changed or ONE that has remained the same in the local area, region or state/territory since colonial times*

### First Contacts:

(HT2-3, HT2-4 and HT2-5)

- investigate, drawing on Aboriginal and Torres Strait Islander community representatives (where possible) and other [sources](#), the traditional Aboriginal way of life, focusing on people, their beliefs, food, shelter, tools and weapons, customs and ceremonies, art works, dance, music, and relationship to Country*

## Geography

### Places are Similar and Different:

(GE2-1, GE2-2, GE2-3 and GE2-4)

- comparison of climates in different places*
  - use a weather website, like [Bureau of Meteorology](#), to compare to climates
  - record data using graphs in Google Sheets or Excel
  - [K-6 Geography Skills Toolbox](#)

### The Earth's Environment:

( GE2-1, GE2-2, GE2-3 and GE2-4)

- comparison of [climate](#), [natural vegetation](#) and [native animals](#)*
  - [K-6 Geography Skills Toolbox](#)

# Stage Two: Science & Technology & PDHPE

## Science & Technology

## Personal Development, Health & Physical Education

### Living World (ST2-4LW-S & ST2-5LW-T)

**Life cycles of living things**

- identify that living things have life cycles
- conduct an investigation into the life cycle of plants and/or animals

### Physical World (ST2-8PW-ST)

**Energy makes things happen**

- explore some common sources and uses of electrical energy and describe different ways electrical energy can be generated sustainably, for example:
  - solar cells
  - hydroelectric power
  - wind turbines
  - geothermal power generation
  - wave power

### Earth and Space (ST2-10ES-S)

**How the Earth's surface changes over time**

- investigate why the Earth's surface changes over time as a result of natural processes and human activity, for example:
  - characteristics of soils
  - identify evidence of natural changes in landforms, rocks or fossils

### Digital Technologies (ST2-1IDI-T)

**Digital systems & the transmission of data**

- identify and explore a range of digital systems and peripheral devices
- investigate digital and information systems, and explore how they meet personal, school or community needs

**Representation & analysis of data**

- recognise that numbers, text, images, sounds, animations and videos are all forms of data when stored or viewed using a digital system
- collect, access and present different types of data using simple software to create information and solve problems
- plan, create and communicate ideas and information, applying agreed ethical and social protocols

**Visual Programming**

- describe and follow a sequence of steps and decisions (algorithms) to solve defined problems involving branching and user input
- design and produce digital solutions using a visual programming language

### Healthy, Safe and Active Lifestyle\*

- research people and places that offer advice and support to themselves and others and share this information with peers using ICT tools, eg online collaboration tools, multimedia presentations
- promote positive health, safety and physical activity messages within their school using various forms of ICT tools, eg multimedia presentations, online collaboration tools
- analyse patterns of physical activity over time using ICT tools to record and propose changes to daily routines to reduce sedentary behaviour and increase physical activity levels
- discuss and interpret how multimedia health information and messages influence personal health decisions through the choices, behaviours and outcomes they convey, eg food choices

The background features a dynamic, abstract pattern of overlapping blue and white shapes. It includes various sizes of diamonds, rectangles, and rounded forms, some with thin black outlines and others with soft shadows. The overall effect is modern and energetic.

# Stage Three

# Stage Three: English

Speaking & Listening (EN3-1A)	Handwriting & Using Digital Technologies (EN2-3A)	Reading & Viewing II (EN2-8B)	Thinking Imaginatively & Creatively (EN2-10C)
<p><input type="checkbox"/> plan, rehearse and deliver presentations, selecting and sequencing appropriate content and multimodal elements for defined audiences and purposes, making appropriate choices for modality and emphasis</p> <ul style="list-style-type: none"> <li>▪ Powerpoint or Google Slides</li> </ul> <p><input type="checkbox"/> identify and summarise key ideas and information from guest speakers, eg note-taking or using digital technologies</p> <ul style="list-style-type: none"> <li>▪ sketchnote</li> <li>▪ Google drawing or an app</li> </ul>	<p><input type="checkbox"/> recognise and discuss issues related to the responsible use of digital communication</p> <ul style="list-style-type: none"> <li>▪ Digital citizenship lessons</li> <li>▪ <a href="#">Budd.e</a></li> <li>▪ <a href="#">Cyber[smart.]</a> lessons → cyberbullying, using technology in the classroom, digital citizenship</li> <li>▪ <a href="#">Cybersmart Access</a></li> <li>▪ <a href="#">Digital Passport</a></li> </ul> <p><input type="checkbox"/> plan, draft and publish <a href="#">imaginative</a>, <a href="#">informative</a> and <a href="#">persuasive texts</a>, choosing and experimenting with <a href="#">text structures</a>, <a href="#">language features</a>, images and digital resources appropriate to <a href="#">purpose</a> and audience</p> <ul style="list-style-type: none"> <li>▪ use Google Docs or Word to type text, including visuals and convert to an ebook</li> </ul> <p><input type="checkbox"/> compose increasingly complex print, visual, <a href="#">multimodal</a> and <a href="#">digital texts</a>, experimenting with <a href="#">language</a>, <a href="#">design</a>, <a href="#">layout</a> and <a href="#">graphics</a></p> <p><input type="checkbox"/> use increasingly complex research data from print and digital sources to compose short and sustained texts</p> <p><input type="checkbox"/> assess the reliability of resources, including digital resources, when researching topics</p>	<p><input type="checkbox"/> explain and justify the responsible use of digital technologies</p> <ul style="list-style-type: none"> <li>▪ Digital citizenship lessons</li> </ul> <p><input type="checkbox"/> compare texts including <a href="#">media</a> texts that represent ideas and events in different ways, explaining the effects of the different approaches</p> <p><input type="checkbox"/> recognise the effect of <a href="#">multimedia</a> elements, eg film techniques, <a href="#">animation</a>, <a href="#">voice-overs</a>, <a href="#">sound effects</a>, <a href="#">framing</a>, close-ups</p> <ul style="list-style-type: none"> <li>▪ <a href="#">Literacy Shed</a></li> <li>▪ Pobble 365</li> </ul> <p><input type="checkbox"/> explain sequences of images in print texts and compare these to the ways <a href="#">hyperlinked digital texts</a> are organised, explaining their effect on viewers' interpretations</p> <p><input type="checkbox"/> interpret <a href="#">picture books</a>, comic strips and sequences of digital images which do not contain written text</p> <p><input type="checkbox"/> use comprehension strategies to interpret and analyse information and ideas, comparing content from a variety of textual sources including media and digital texts</p> <ul style="list-style-type: none"> <li>▪ padlet</li> <li>▪ playposit</li> </ul>	<p><input type="checkbox"/> demonstrate an awareness of the limitations of spell check features in digital communication</p> <p><b>Expressing Themselves (EN2-11D)</b></p> <p><input type="checkbox"/> investigate how the organisation of texts into chapters, headings, subheadings, home pages and sub-pages for online texts and according to chronology or topic can be used to predict content and assist navigation</p> <p><input type="checkbox"/> discuss the conventions of a range of complex texts, eg act and stage directions in plays, literary devices in poems and stories, layout conventions in print and digital texts</p>

# Stage Three: Mathematics

## Number and Algebra

### Whole Number: (MA3-4NA)

- interpret information from the internet, the media, the environment and other sources that use large numbers
- explore square and triangular numbers using arrays, grid paper or digital technologies

### Addition & Subtraction: (MA3-5NA)

- select and apply efficient mental, written and calculator strategies to solve addition and subtraction word problems, including problems involving money record numerical data in a simple spreadsheet
- select and apply appropriate mental and written strategies, with and without the use of digital technologies, to solve unfamiliar problems

### Multiplication & Division: (MA3-6NA)

- use digital technologies to multiply numbers of up to four digits
- check answers to mental calculations using digital technologies
- apply appropriate mental and written strategies, and digital technologies, to solve multiplication word problems
- use digital technologies to divide whole numbers by one- and two-digit divisors
- check answers to mental calculations using digital technologies
- apply appropriate mental and written strategies, and digital technologies, to solve division word problems
- use a table or similar organiser to record methods used to solve problems

### Fractions & Decimals: (MA3-7NA)

- calculate unit fractions of collections, with and without the use of digital technologies, eg calculate 1/5 of 30
- calculate a simple fraction of a collection/quantity, with and without the use of digital technologies, eg calculate 25 of 30
- add and subtract decimals with the same number of decimal places, with and without the use of digital technologies
- add and subtract decimals with a different number of decimal places, with and without the use of digital technologies
- multiply decimals of up to three decimal places by whole numbers of up to two digits, with and without the use of digital technologies, eg 'I measured three desks. Each desk was 1.25 m in length, so the total length is  $3 \times 1.25 = 3.75$  m'
- calculate common percentages (10%, 25%, 50%) of quantities, with and without the use of digital technologies
- calculate the sale price of an item after a discount of 10%, 25% and 50%, with and without the use of digital technologies, recording the strategy and result

### Patterns & Algebra: (MA3-8NA)

- create, with materials or digital technologies, a variety of patterns using whole numbers, fractions or decimals, eg 14, 24, 34, 44, 54, 64, ... or 2.2, 2.0, 1.8, 1.6, ...
- continue and create number patterns, with and without the use of digital technologies, using whole numbers, fractions and decimals, eg 14, 18, 116, ... or 1.25, 2.5, 5, ...

# Stage Three: Mathematics

## Measurement and Geometry

### Time: (MA3-13MG)

- use bus, train, ferry and airline timetables, including those accessed on the internet, to prepare simple travel itineraries

### Two-Dimensional Space: (MA3-15MG)

- use computer drawing tools to construct a shape from a description of its side and angle properties
- rotate a graphic or object through a specified angle about a particular *point*, including by using the rotate function in a computer drawing program
- construct designs with rotational symmetry, with and without the use of digital technologies
- make enlargements of two-dimensional shapes, pictures and maps, with and without the use of digital technologies
- investigate and use functions of digital technologies that allow shapes and images to be enlarged without losing the relative proportions of the image
- construct patterns of two-dimensional shapes that involve translations, reflections and rotations using computer software

### Position: (MA3-17MG)

- use a street directory or online map to find the route to a given location

## Statistics and Probability

### Data: (MA3-18SP)

- tabulate collected *data*, including numerical data, with and without the use of digital technologies such as spreadsheets
  - o Google Sheets or Excel
- construct dot plots for numerical data, eg the number of siblings of each student in the class
- interpret data representations found in digital media and in factual texts
- interpret tables and graphs from the media and online sources, eg data about different sports teams
- critically evaluate data representations found in digital media and related claims
- identify misleading representations of data in the media, eg broken axes, graphics that are not drawn to scale

### Chance: (MA3-19SP)

- determine the likelihood of winning simple games by considering the number of possible outcomes, eg in a 'rock-paper-scissors' game

# Stage Three: History & Geography

## History

### The Australian Colonies: (HT3-1, HT3-2 and HT3-5)

- use a range of sources to investigate ONE significant development or event and its impact on the chosen colony*

### Australia as a Nation: (HT3-3, HT3-4 and HT3-5)

- sequence key figures and events and explain their significance in the development of Australian democracy, eg Sir Henry Parkes, Edmund Barton, Louisa Lawson, Vida Goldstein*

## Geography

### Factors that Shape Places: (GE3-1, GE3-2, GE3-3 and GE3-4)

- description of the impact of the disaster on natural vegetation and the damage caused to communities*
  - K-6 Geography Skills Toolbox

### A Diverse and Connected World: (GE3-1, GE3-2 and GE3-4)

- examination of various cultures eg customs, beliefs, social organisation*
- examination of a significant event and its local, regional and global effect on people and places eg sporting or cultural event*
  - simple maps to pin where items come from

# Stage Three: Science & Technology & PDHPE

## Science & Technology

### Living World (ST3-4LW-S & ST3-5LW-T)

**Growth and survival of living things**

- plan and conduct a fair test to show the conditions needed for a particular plant or animal to grow and survive in its environment*
- describe how changing physical conditions in the environment affect the growth and survival of living things*
- test predictions by gathering data and use evidence to develop explanations of events and phenomena*

**Adaptations of living things**

- describe the structural and/or behavioural features of some native Australian animals and plants and why they are considered to be adaptations*

**Sustainably managed environments to source food and fibre**

- explore examples of managed environments used to produce food and fibre*
- investigate how and why food and fibre are produced in managed environments*
- identify and sequence the process of converting 'on-farm' food and fibre products into a product suitable for retail sale*

### Physical World (ST3-8PW-ST & ST3-9PW-ST)

**Transfer and transformation of energy**

- investigate how electrical energy can be transferred and transformed in electrical circuits and can be generated from a range of sources*

**Forces and energy in products and systems**

- describe examples where light, sound, heat and electrical energy transform from one type of energy to another*
- investigate how electrical energy can control movement, sound, or light in a product or system*
- design, test and evaluate a product or system that involves an energy transformation to meet an identified need using electrical energy*

### Earth and Space (ST3-10ES-S)

**Earth's place in our solar system**

- compare the key features of the planets of our solar system*
- research and communicate how Aboriginal and/or Torres Strait Islander Peoples use observations of the night sky to inform decisions about resources and significant cultural events*

- examine and discuss current developments in astronomy, space and planetary science, particularly related to making observations and gathering data*

**Changes to Earth's surface**

- investigate the effects of sudden geological changes and extreme weather events on the Earth's surface,*

### Digital Technologies (ST3-1IDI-T)

**Using and interpreting data**

- identify how whole numbers are used to represent all data (binary) in digital systems*
- collect, store and interpret different types of data*
- use software to interpret and visualise data*

**Digital systems and networks**

- investigate internal and external components of digital systems that perform functions*
- explore how the main components of digital systems connect together to form networks that transmit data*
- describe how data can be transmitted between two digital components*
- identify and explain how existing information systems meet the needs of present and future communities*

**Designing digital solutions**

- design, modify and follow algorithms involving branching and iteration*
- define problems, and plan and implement digital solutions, using an appropriate visual programming language involving branching and iteration, and requiring user input*

# Stage Three: Science & Technology & PDHPE

## Personal Develop, Health and Physical Education

### Health, Wellbeing and Relationships \*

- explore the function and interrelationship of body systems
- identify and evaluate age-appropriate sources of information to enhance understanding of changes associated with growth and development
- investigate help-seeking strategies to manage changes associated with puberty, eg talking to trusted adults, accessing health products and services
- research sources of health information and places where they can seek help about health, safety and wellbeing
- apply criteria to determine the reliability and relevance of community resources in providing factual information

### Movement Skill and Performance \*

- use feedback to modify and adapt performance as a result of practice, peer and self-assessment, eg video recording to provide feedback on performance

### Healthy, Safe and Active Lifestyles \*

- discuss the importance of health, safety and wellbeing services in supporting children and share information about local services using ICT tools, eg online collaboration, multimedia presentation
- plan for personal safety online and ethical use of mobile devices and social media
- devise questions to analyse health campaigns and initiatives
- research websites and places where they can seek help and prioritise those that are reliable and trustworthy
- analyse health messages and compare their interpretations with those of other members of the class
- explain how family, peers, popular culture and the media influence the way individuals interact and the decisions they make in given situations, eg risk-taking, positive health decisions, offensive online material, gambling, gender expectation

\*Due for implementation 2019/2020