

Australian Curriculum - Technologies: Digital Technologies - Strands with Elaborations
PROGRESSION IS HIGHLIGHTED IN THE FOLLOWING DOCUMENT VIA BOLD TEXT.

General Capabilities					
Literacy	Numeracy	ICT capability	Critical and creative thinking	Personal and social capability	Ethical understanding

Cross-curriculum priorities		
Regional and Torres Strait Islander history and cultures	Asia and Australia's engagement with Asia	Sustainability



The Technologies curriculum provides students with opportunities to consider how solutions that can be used in the future to address real-world problems can be developed and implemented. It requires students to understand systems and how they can be improved, and to design and create solutions that can be used in the future. It also requires students to understand systems and how they can be improved, and to design and create solutions that can be used in the future. It also requires students to understand systems and how they can be improved, and to design and create solutions that can be used in the future.

Band of Year Levels	BAND DESCRIPTIONS	Digital Technologies knowledge and understanding		Communicating ideas and information (Foundation – Year 2)		Design and Technology processes and production skills		Design and Technology processes and production skills			
		Content Descriptor	Elaborations	Content Descriptor	Elaborations	Content Descriptor	Elaborations	Content Descriptor	Elaborations		
Foundation to Year 2	<p>The strand focuses on developing the understanding/knowledge and understanding of information systems: digital systems and representation of data.</p> <p>(I) Digital systems: The digital systems content descriptions focus on the components of digital systems: hardware, software and networks. In the early years students learn about a range of hardware and software and progress to an understanding of how data is transmitted between components within a system, and how the hardware and software interact to run solutions.</p> <p>(II) Representation of data: The representation of data content descriptions focus on how data are represented and structured electronically, up to digital systems. Different types of data are studied in the bands including text, numeric, images and sound from Foundation – Year 2 to sound, categorical and related data in Year 2 and 10.</p>	<p>Content Descriptor</p> <p>Identify, use and explore digital systems (hardware and software components) for a purpose (ACTDES001)</p> <p>By the end of Year 2, students will have had opportunities to create a range of digital solutions through problem-solving tasks, such as using robotic toys to manage a system or monitoring systems data with software applications.</p> <p>In Foundation – Year 2, students begin to learn about common digital systems and practices that use data to solve problems. Students explore, compare and present the data, including numerical, categorical, text, image, audio and video data, increasing ways to process them.</p> <p>Students use the concept of abstraction when defining problems, to identify the most important information, such as the significant steps needed in solving a problem. They begin to design their design skills by conceptualising algorithms as a sequence of steps for carrying out operations, such as identifying steps in a process or controlling a robot. Students describe how information systems meet information, communication and operational needs.</p> <p>Through discussion with teachers, students learn to apply safe and ethical practices to protect themselves and others as they interact online for learning and communicating.</p>	<p>Elaborations</p> <p>Playing with and using different digital systems for transferring and capturing data, for example, using a tablet to take a photograph of a playground and recording an interview with them about the game.</p> <p>Exploring and using digital systems for downloading and storing information, for example keeping track of basketball league team statistics and keeping them in a spreadsheet, using and entering data.</p> <p>Exploring and identifying hardware and software components of digital systems when comparing data and information, for example experiencing with different ways of providing instructions to games software using a remote, touch pad, touch screen, keyboard, mouse, or touch-screen device, and using different software to manipulate text, numbers, sound and images.</p> <p>Recognising and using hardware and software components of digital systems and experimenting with their functions, for example playing with interactive toys and robotic devices to determine which ones work best with other devices.</p> <p>Recognising that a digital system follows instructions or commands, for example instructing robots to perform a function such as a dance movement.</p> <p>Comparing a model of a real or imaginary digital systems device to a role-play scenario or representing the features of the device to an adult.</p>	<p>Content Descriptor</p> <p>Collect, explore and sort data, and use digital systems to represent the data (ACTDES002)</p> <p>By the end of Year 2, students will have had opportunities to create a range of digital solutions through problem-solving tasks, such as using robotic toys to manage a system or monitoring systems data with software applications.</p> <p>In Foundation – Year 2, students begin to learn about common digital systems and practices that use data to solve problems. 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Students describe how information systems meet information, communication and operational needs.</p> <p>Through discussion with teachers, students learn to apply safe and ethical practices to protect themselves and others as they interact online for learning and communicating.</p>	<p>Elaborations</p> <p>Sharing and discussing ways that common digital systems can be used to communicate, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising and discussing the need for cyber-safety when using digital systems, for example recognizing the shared personal information that can be used for cyber-safety purposes and the ways a password is a means of protecting identity.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p>	<p>Content Descriptor</p> <p>Use different types of data to create information for sharing online, for example creating a multimedia class profile that includes a photo of each student, a personal audio recording and a written message (ACTDES005)</p> <p>By the end of Year 2, students will have had opportunities to create a range of digital solutions through problem-solving tasks, such as using robotic toys to manage a system or monitoring systems data with software applications.</p> <p>In Foundation – Year 2, students begin to learn about common digital systems and practices that use data to solve problems. 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Students describe how information systems meet information, communication and operational needs.</p> <p>Through discussion with teachers, students learn to apply safe and ethical practices to protect themselves and others as they interact online for learning and communicating.</p>	<p>Elaborations</p> <p>Using different types of data to create information for sharing online, for example creating a multimedia class profile that includes a photo of each student, a personal audio recording and a written message.</p> <p>Planning and creating text, drawings and sound files to share online, for example jointly creating a photo story to illustrate a table or story from the Asia region or a local Aboriginal and Torres Strait Islander community story.</p> <p>Managing digital resources when using games or public sharing and using the work of others, for example asking the question 'What is fair and just?' to compare games of words or activities and decide whether or not to publish.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p>
Foundation to Year 2	<p>Recognise and explain patterns in data and represent data in tables, graphs and diagrams (ACTDES006)</p> <p>By the end of Year 2, students will have had opportunities to create a range of digital solutions through problem-solving tasks, such as using robotic toys to manage a system or monitoring systems data with software applications.</p> <p>In Foundation – Year 2, students begin to learn about common digital systems and practices that use data to solve problems. Students explore, compare and present the data, including numerical, categorical, text, image, audio and video data, increasing ways to process them.</p> <p>Students use the concept of abstraction when defining problems, to identify the most important information, such as the significant steps needed in solving a problem. They begin to design their design skills by conceptualising algorithms as a sequence of steps for carrying out operations, such as identifying steps in a process or controlling a robot. Students describe how information systems meet information, communication and operational needs.</p> <p>Through discussion with teachers, students learn to apply safe and ethical practices to protect themselves and others as they interact online for learning and communicating.</p>	<p>Elaborations</p> <p>Using different types of data to create information for sharing online, for example creating a multimedia class profile that includes a photo of each student, a personal audio recording and a written message.</p> <p>Planning and creating text, drawings and sound files to share online, for example jointly creating a photo story to illustrate a table or story from the Asia region or a local Aboriginal and Torres Strait Islander community story.</p> <p>Managing digital resources when using games or public sharing and using the work of others, for example asking the question 'What is fair and just?' to compare games of words or activities and decide whether or not to publish.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p> <p>Recognising digital systems when using them to solve problems, for example using a tablet to take a photograph and sharing it with others, or using a tablet to take a photograph and sharing it with others.</p>									

Foundation to Year 2 Achievement Standard

By the end of Year 2, students identify how common digital systems (hardware and software) are used to meet specific purposes.

They use digital systems to represent simple problems in data in different ways.

They collect, describe and display them to convey meaning.

Students design solutions to simple problems using a sequence of steps and devices.

They create and organise ideas and information using information systems and share information in safe online environments.

