



Australian
CURRICULUM
Review

TECHNOLOGIES

CONSULTATION CURRICULUM

Digital Technologies – Comparative information F–10

Copyright statement

The copyright material published in this work is subject to the *Copyright Act 1968* (Cth) and is owned by ACARA or, where indicated, by a party other than ACARA.

This material is consultation material only and has not been endorsed by Australia's nine education ministers.

You may view, download, display, print, reproduce (such as by making photocopies) and distribute these materials in unaltered form only for your personal, non-commercial educational purposes or for the non-commercial educational purposes of your organisation, provided that you make others aware it can only be used for these purposes and attribute ACARA as the source. For attribution details, refer to clause 5 of the Copyright and Terms of Use published on the Australian Curriculum website – www.australiancurriculum.edu.au/copyright-and-terms-of-use.

ACARA does not endorse any product that uses the Australian Curriculum Review consultation material or make any representations as to the quality of such products. Any product that uses this material should not be taken to be affiliated with ACARA or have the sponsorship or approval of ACARA

COMPARISON OF CURRENT AND REVISED CURRICULUM IN TECHNOLOGIES: DIGITAL TECHNOLOGIES

Content descriptions: Foundation to Year 4

Strand: Knowledge and understanding

Sub-strand: Digital systems	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original	Recognise and explore digital systems (hardware and software components) for a purpose (ACTDIK001)		Identify and explore a range of digital systems with peripheral devices for different purposes, and transmit different types of data (ACTDIK007)
Proposed	recognise and explore digital systems (hardware and software) and how they can be used to solve simple problems (AC9TDIFK01)	identify and explore digital systems and their components for a purpose (AC9TDI2K01)	explore and describe a range of digital systems and their peripherals for a variety of purposes (AC9TDI4K01) explore transmitting different types of data between digital systems (AC9TDI4K02)
Sub-strand: Data representation	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original	Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)		Recognise different types of data and explore how the same data can be represented in different ways (ACTDIK008)
Proposed	represent data as objects, pictures and symbols (AC9TDIFK02)	represent data as pictures, symbols, numbers and words (AC9TDI2K02)	recognise different types of data and explore how the same data can be represented differently depending on the purpose (AC9TDI4K03)

Strand: Processes and production skills

Sub-strand: Acquiring, managing and analysing data	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original Collecting, managing and analysing data	Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003)		Collect, access and present different types of data using simple software to create information and solve problems (ACTDIP009)
Proposed	<i>See Mathematics: Statistics strand</i>	<i>See Mathematics: Statistics strand</i>	<i>See Mathematics: Statistics strand</i>

Sub-strand: Investigating and defining	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original	Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)		Define simple problems, and describe and follow a sequence of steps and decisions (algorithms) needed to solve them (ACTDIP010)
Proposed	<i>Removed</i>	investigate simple problems for known users that can be solved with digital systems (AC9TDI2P01)	define problems with given design criteria and by co-creating user stories (AC9TDI4P01)

Sub-strand: Generating and designing	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original			
Proposed		follow and describe algorithms involving a sequence of steps, branching (decisions) and iteration (repetition) (AC9TDI2P02)	follow and describe algorithms involving sequencing, comparison operators (branching), and iteration (AC9TDI4P02) generate, communicate and compare designs (AC9TDI4P03)

Sub-strand: Producing and implementing	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original			Implement simple digital solutions as visual programs with algorithms involving branching (decisions) and user input (ACTDIP011)
Proposed		See (AC9TDI2P02)	implement simple algorithms as visual programs involving control structures, variables and user input (AC9TDI4P04)

Sub-strand: Evaluating	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original	Explore how people safely use common information systems to meet information, communication and recreation needs (ACTDIP005)		Explain how student solutions and existing information systems meet common personal, school or community needs (ACTDIP012)

Proposed	<i>Removed</i>	discuss how existing digital systems satisfy known user needs (AC9TDI2P03)	discuss how existing and student solutions satisfy the design criteria and user stories (AC9TDI4P05)
Sub-strand: Collaborating and managing	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original	Create and organise ideas and information using information systems independently and with others, and share these with known people in safe online environments (ACTDIP006)		Plan, create and communicate ideas and information independently and with others, applying agreed ethical and social protocols (ACTDIP013)
Proposed	<i>Removed</i>	create and locate content and communicate with others using common tools and their basic functionality (AC9TDI2P04)	create, locate and edit content and communicate with others selecting and using common tools and their core functionality and following agreed conventions to name files (AC9TDI4P06)
		share information with known people following agreed behaviours, supervised by trusted adults (AC9TDI2P05)	share information and collaborate with others demonstrating agreed behaviours, guided by trusted adults (AC9TDI4P07)
Sub-strand: Privacy and security	Foundation <i>Students learn to:</i>	Years 1 and 2 <i>Students learn to:</i>	Years 3 and 4 <i>Students learn to:</i>
Original			

Proposed (new)	identify some data that are personal and owned by them (AC9TDIFP01)	access their school account with a recorded username and password to access their own information (AC9TDI2P06)	access their school account using a memorised password and explain why it should be easy to remember, but hard for others to guess (AC9TDI4P08)
		discuss that some websites and apps store their personal data online (AC9TDI2P07)	identify what personal data is stored and shared in their online accounts and discuss any associated risks (AC9TDI4P09)

Achievement standards Foundation to Year 4

Digital Technologies achievement standard			
	Foundation	Years 1 and 2	Years 3 and 4
Original	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 patterns in data in different ways. Students design solutions to simple problems using a sequence of steps and decisions. They collect familiar data and display them to convey meaning. They create and organise ideas and information using information systems and share information in safe online environments.		By the end of Year 4, students describe how a range of digital systems (hardware and software) and their peripheral devices can be used for different purposes. They explain how the same data sets can be represented in different ways. Students define simple problems, design and implement digital solutions using algorithms that involve decision-making and user input. They explain how the solutions meet their purposes. They collect and manipulate different data when creating information and digital solutions. They safely use and manage information systems for identified needs using agreed protocols and describe how information systems are used.

Proposed	By the end of Foundation students develop familiarity with digital systems and display confidence when using digital systems. They show how digital systems can be used safely to solve problems. Students represent data using objects, pictures and symbols and identify examples of data that is owned by them.	By the end of Year 2 students use basic computational thinking to create simple solutions to known problems or opportunities. They identify digital systems and their components, exploring their purpose. Students represent data using symbols, numbers and words. They identify examples of personal data that may be stored online. Students describe and represent algorithms that involve repetition and decisions.	By the end of Year 4 students use computational thinking to create scaffolded digital solutions. They recognise different types of data and identify how they are transmitted by digital systems. They use passphrases and agreed behaviours to safely access and explore digital systems, tools and online or networked environments independently and with others. They define problems and identify opportunities, then design and implement solutions using algorithms and visual programming that involve decision-making, repetition and user input. Students evaluate their solutions against design criteria.
-----------------	--	---	---

Technologies achievement standard			
	Foundation	Years 1 and 2	Years 3 and 4
Original	By the end of Year 2, students describe the purpose of familiar products, services and environments and how they meet a range of present needs. They list the features of technologies that influence design decisions and identify how digital systems are used. Students identify needs, opportunities or problems and describe them. They collect, sort and display familiar data from a range of sources and recognise patterns in data. Students record design ideas using techniques including labelled drawings, lists and sequenced instructions. They design solutions to simple problems using a sequence of steps and decisions. With guidance, students produce designed solutions for each of the prescribed technologies contexts. Students evaluate their ideas, information and solutions on the basis of personal preferences and provided criteria including care for the environment. They safely create solutions and communicate ideas and information face-to-face and online.		By the end of Year 4, students describe how social, technical and sustainability factors influence the design of solutions to meet present and future needs. They describe features of technologies that influence design decisions and how a range of digital systems can be used. Students outline and define needs, opportunities or problems. They collect, manipulate and interpret data from a range of sources to support decisions. Students generate and record design ideas for an audience using technical terms and graphical and non-graphical representation techniques including algorithms. They plan a sequence of steps (algorithms) to create solutions, including visual programs. Students plan and safely produce designed solutions for each of the prescribed technologies contexts. They use identified criteria for success, including sustainability

			considerations, to judge the suitability of their ideas, solutions and processes. Students use agreed protocols when collaborating, and creating and communicating ideas, information and solutions face-to-face and online.
Proposed	By the end of Foundation students identify familiar products, services and environments and develop familiarity with and show confidence in using digital systems. They use materials and equipment to safely make a solution for a school-selected context and show how digital systems can be used to solve problems. Students use objects, pictures and symbols to represent data. They identify if data is personal and owned by them.	By the end of Year 2 students describe the purpose of familiar products, services and environments and use basic computational thinking to create simple digital solutions to known problems or opportunities. For each of the two prescribed technologies contexts they identify the features and uses of technologies and create designed solutions. They evaluate their ideas, based on their personal preferences. Students communicate design ideas using models and simple drawings, describe and represent algorithms that involve repetition and decisions, and follow sequenced steps to safely produce designed solutions. They identify examples of personal data that may be stored online.	By the end of Year 4 students describe how people design products, services and environments to meet the needs of people, including sustainability, and use computational thinking to create scaffolded digital solutions. They recognise different types of data and identify how they are transmitted by digital systems. For each of the two prescribed technologies contexts they describe the features of technologies and create designed solutions. Students evaluate ideas against identified criteria for success. They define problems and identify opportunities, then design and implement solutions using algorithms and visual programming that involve decision-making, repetition and user input. Students use models and drawings including annotations and symbols to plan, sequence and communicate major steps in design and production. They use technologies and techniques to safely produce solutions. Students use passphrases and agreed behaviours to safely access and explore digital systems, tools and online or networked environments independently and with others.

Content descriptions: Years 5 to 10

Strand: Knowledge and understanding

Sub-strand: Digital systems	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014)	Investigate how data is transmitted and secured in wired, wireless and mobile networks, and how the specifications affect performance (ACTDIK023)	Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems (ACTDIK034)
Proposed	investigate the main internal components of common digital systems and their function (AC9TDI6K01)	explain how hardware specifications affect performance and select appropriate hardware for particular tasks and workloads (AC9TDI8K01)	<i>Removed</i>
	examine how digital systems form networks to transmit data (AC9TDI6K02)	investigate how data is transmitted and secured in wired and wireless networks including the internet (AC9TDI8K02)	investigate how hardware and software manage, control and secure access to data in networked digital systems (AC9TDI10K01)

Sub-strand: Data representation	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Examine how whole numbers are used to represent all data in digital systems (ACTDIK015)	Investigate how digital systems represent text, image and audio data in binary (ACTDIK024)	Analyse simple compression of data and how content data are separated from presentation (ACTDIK035)

Proposed	explain how digital systems represent all data using numbers (AC9TDI6K03)	investigate how digital systems represent text, image and audio data using integers (AC9TDI8K03)	represent documents online as content (text), structure (markup) and presentation (styling) and explain why such representations are important (AC9TDI10K02)
	explore how data can be represented by off and on states (zeros and ones in binary) (AC9TDI6K04)	explain how and why digital systems represent integers in binary (AC9TDI8K04)	investigate simple data compression techniques (AC9TDI10K03)

Strand: Processes and production skills

Sub-strand: Acquiring, managing and analysing data	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original Collecting, managing and analysing data	Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)	Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025) Analyse and visualise data using a range of software to create information and use structured data to model objects or events (ACTDIP026)	Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements (ACTDIP036) Analyse and visualise data to create information and address complex problems, and model processes, entities and their relationships using structured data (ACTDIP037)
Proposed	<i>See Mathematics: Statistics strand</i>	acquire, store and validate data from a range of sources using software, including spreadsheets and databases (AC9TDI8P01)	develop techniques to acquire, store and validate data from a range of sources using software, including spreadsheets and databases (AC9TDI10P01)

		analyse and visualise data using a range of software, including spreadsheets and databases, to draw conclusions and make predictions by identifying trends (AC9TDI8P02)	analyse and visualise data interactively using a range of software, including spreadsheets and databases, to draw conclusions and make predictions by identifying trends and outliers (AC9TDI10P02)
		model and query the attributes of objects and events using structured data (AC9TDI8P03)	model and query entities and their relationships using structured data (AC9TDI10P03)

Sub-strand: Investigating and defining	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Define problems in terms of data and functional requirements drawing on previously solved problems (ACTDIP017)	Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)	Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs (ACTDIP038)
Proposed	define problems using given or co-developed design criteria and by creating user stories (AC9TDI6P01)	define and decompose real-world problems with design criteria and by creating user stories (AC9TDI8P04)	define and decompose real-world problems with design criteria and by interviewing stakeholders to create user stories (AC9TDI10P04)

Sub-strand: Generating and designing	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Design a user interface for a digital system (ACTDIP018) Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)	Design the user experience of a digital system, generating, evaluating and communicating alternative designs (ACTDIP028) Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors (ACTDIP029)	Design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics (ACTDIP039) Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases (ACTDIP040)
Proposed	design algorithms involving multiple alternatives (branching) and iteration (AC9TDI6P02)	design algorithms involving nested control structures and represent them using flowcharts and pseudocode (AC9TDI8P05)	design algorithms involving logical operators and represent them as flowcharts and pseudocode (AC9TDI10P05)
		trace algorithms to predict output for a given input and to identify errors (AC9TDI8P06)	validate algorithms and programs by comparing their output against a range of test cases (AC9TDI10P06)
	design a user interface for a digital system (AC9TDI6P03)	design the user experience of a digital system (AC9TDI8P07)	design and prototype the user experience of a digital system (AC9TDI10P07)
	generate, modify, communicate and evaluate designs (AC9TDI6P04)	generate, modify, communicate and evaluate alternative designs (AC9TDI8P08)	generate, modify, communicate and critically evaluate alternative designs (AC9TDI10P08)

Sub-strand: Producing and implementing	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)	Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language (ACTDIP030)	Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language (ACTDIP041)
Proposed	implement algorithms as visual programs involving control structures, variables and user input (AC9TDI6P05)	implement algorithms and modify and debug programs involving control structures and functions in a general-purpose programming language (AC9TDI8P09)	implement, modify and debug modular programs, applying selected algorithms and data structures, including in an object-oriented programming language (AC9TDI10P09)

Sub-strand: Evaluating	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Explain how student solutions and existing information systems are sustainable and meet current and future local community needs (ACTDIP021)	Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability (ACTDIP031)	Evaluate critically how student solutions and existing information systems and policies, take account of future risks and sustainability and provide opportunities for innovation and enterprise (ACTDIP042)
Proposed	evaluate existing and student solutions against the design criteria and user stories and their broader community impact (AC9TDI6P06)	evaluate existing and student solutions against the design criteria, user stories and possible future impact (AC9TDI8P10)	evaluate existing and student solutions against the design criteria, user stories, possible future impact and opportunities for enterprise (AC9TDI10P10)

Sub-strand: Collaborating and managing	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original	Plan, create and communicate ideas and information, including collaboratively online, applying agreed ethical, social and technical protocols (ACTDIP022)	Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032)	Create interactive solutions for sharing ideas and information online, taking into account safety, social contexts and legal responsibilities (ACTDIP043) Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability (ACTDIP044)
Proposed	create, locate and edit content for, and communicate with, a specific audience, selecting appropriate tools and using their advanced functionality and storage conventions (AC9TDI6P07)	create, locate and edit content for, and communicate with, a specific audience, selecting from a range of tools and using their advanced functionality and storage conventions (AC9TDI8P11)	create, locate and edit interactive content for a diverse audience (AC9TDI10P11)
	share information, plan and collaborate with others demonstrating ethical and agreed behaviours, supported by trusted adults (AC9TDI6P08)	share information publicly online and plan, manage and collaborate on simple agile projects, demonstrating agreed behaviours (AC9TDI8P12)	plan, manage and document individual and collaborative agile projects accounting for risks and responsibilities (AC9TDI10P12)
Sub-strand: Privacy and security	Years 5 and 6 <i>Students learn to:</i>	Years 7 and 8 <i>Students learn to:</i>	Years 9 and 10 <i>Students learn to:</i>
Original			

Proposed (new)	access multiple personal accounts using unique passphrases and explain the risks of password re-use (AC9TDI6P09)	explain how multi-factor authentication protects an account when the password is compromised and identify phishing and malware threats (AC9TDI8P13)	describe cyber security threats and mitigation, including using multi-factor authentication and password managers (AC9TDI10P13)
	explain the creation and permanence of their digital footprint and consider privacy when collecting user data (AC9TDI6P10)	investigate and manage the data existing systems and student solutions collect that contributes to a digital footprint and assess if the data is essential to their purpose (AC9TDI8P14)	apply the Australian Privacy Principles to critique and manage the data that existing systems and student solutions collect that contribute to a digital footprint (AC9TDI10P14)

Achievement standards Years 5 to 10

Digital Technologies achievement standard			
	Years 5 and 6	Years 7 and 8	Years 9 and 10
Original	<p>By the end of Year 6, students explain the fundamentals of digital system components (hardware, software and networks) and how digital systems are connected to form networks. They explain how digital systems use whole numbers as a basis for representing a variety of data types.</p> <p>Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems. They incorporate decision-making, repetition and user interface design into their designs and implement their digital solutions, including a visual program. They explain how</p>	<p>By the end of Year 8, students distinguish between different types of networks and defined purposes. They explain how text, image and audio data can be represented, secured and presented in digital systems.</p> <p>Students plan and manage digital projects to create interactive information. They define and decompose problems in terms of functional requirements and constraints. Students design user experiences and algorithms incorporating branching and iterations, and test, modify and implement digital solutions. They evaluate information systems and their solutions in terms of meeting needs, innovation and sustainability. They analyse and evaluate data</p>	<p>By the end of Year 10, students explain the control and management of networked digital systems and the security implications of the interaction between hardware, software and users. They explain simple data compression, and why content data are separated from presentation.</p> <p>Students plan and manage digital projects using an iterative approach. They define and decompose complex problems in terms of functional and non-functional requirements. Students design and evaluate user experiences and algorithms. They design and implement modular programs, including an object-oriented program, using algorithms</p>

	<p>information systems and their solutions meet needs and consider sustainability. Students manage the creation and communication of ideas and information in collaborative digital projects using validated data and agreed protocols.</p>	<p>from a range of sources to model and create solutions. They use appropriate protocols when communicating and collaborating online.</p>	<p>and data structures involving modular functions that reflect the relationships of real-world data and data entities. They take account of privacy and security requirements when selecting and validating data. Students test and predict results and implement digital solutions. They evaluate information systems and their solutions in terms of risk, sustainability and potential for innovation and enterprise. They share and collaborate online, establishing protocols for the use, transmission and maintenance of data and projects.</p>
Proposed	<p>By the end of Year 6 students use computational thinking to create digital solutions. They understand and describe how data is represented and transmitted. Students understand how behaviours and ethics help protect data and describe what effect supplied data can have on their digital footprint. They design digital solutions based on user stories by developing algorithms to address problems or opportunities and implement them as visual programs that involve decision-making, repetition and user input. Students evaluate ideas and solutions against design criteria, using their knowledge of digital systems to communicate ideas to an audience.</p>	<p>By the end of Year 8 students use computational thinking to independently and collaboratively create effective digital solutions measured against negotiated success criteria. They design solutions to real-world problems and opportunities by creating a variety of algorithmic designs and implement them using a general-purpose programming language. Students use a range of tools to make predictions and draw conclusions based on acquired, stored and validated data. They explain how digital systems represent, transmit and secure data. Students identify and explain how to protect against cyber security threats, manage the risks of sharing and curate their digital footprint.</p>	<p>By the end of Year 10 students use computational thinking to create innovative digital solutions measured against stakeholder user stories. They plan and manage agile projects, being aware of risks, responsibilities and the effects of curated data on the digital footprint. Students design complex solutions to draw conclusions and make predictions by creating and validating algorithms and modular programs. They model entities and their relationships using structured data. They critically evaluate ideas and solutions against design criteria and user stories. Students design and create online documents using the component parts of text, markup and styling. Students explain how data can be stored; secured; managed; and controlled by hardware, software and encryption. They evaluate cyber security threats and mitigations.</p>

Technologies achievement standard		
	Years 5 and 6	Years 7 and 8
Original	<p>By the end of Year 6, students explain how social, ethical, technical and sustainability considerations influence the design of solutions to meet a range of present and future needs. They explain how the features of technologies influence design decisions and how digital systems are connected to form networks.</p> <p>Students describe a range of needs, opportunities or problems and define them in terms of functional requirements. They collect and validate data from a range of sources to assist in making judgements. Students generate and record design ideas for specified audiences using appropriate technical terms, and graphical and non-graphical representation techniques including algorithms. They plan, design, test, modify and create digital solutions that meet intended purposes including user interfaces and a visual program. Students plan and document processes and resources and safely produce designed solutions for each of the prescribed technologies contexts. They negotiate criteria for success, including sustainability considerations, and use these to judge the suitability of their ideas, solutions and processes. Students use ethical, social and technical protocols when collaborating, and creating and communicating ideas, information and solutions face-to-face and online.</p>	<p>By the end of Year 8, students explain how social, ethical, technical and sustainability considerations influence the design of innovative and enterprising solutions to meet a range of present and future needs. They explain how the features of technologies influence design and production decisions. Students make choices between different types of networks for defined purposes.</p> <p>Students explain a range of needs, opportunities or problems and define them in terms of functional requirements and constraints. They collect, authenticate and interpret data from a range of sources to assist in making informed judgements. Students generate and document in digital and non-digital form, design ideas for different audiences using appropriate technical terms, and graphical representation techniques including algorithms. They independently and safely plan, design, test, modify and create a range of digital solutions that meet intended purposes including user interfaces and the use of a programming language. They plan, document and effectively manage processes and resources to produce designed solutions for each of the prescribed technologies contexts. They develop criteria for success, including innovation and sustainability considerations, and use these to judge the suitability of their ideas, solutions and processes. Students use appropriate protocols when collaborating, and creating and communicating ideas, information and solutions face-to-face and online.</p>

<p>Proposed</p>	<p>By the end of Year 6 students describe how people design products, services and environments to meet the needs and opportunities of communities, including sustainability. For each of the three prescribed technologies contexts students explain how the features of technologies impact on design decisions and they create designed solutions. They use computational thinking to design and create digital solutions by developing algorithms to address problems or opportunities and implement them as visual programs. They evaluate ideas and solutions against criteria for success. Students use technical terms and graphical representation techniques to communicate ideas to an audience. They record project plans, including production processes, and select appropriate technologies and techniques to safely produce designed solutions. Students understand and describe how data is transmitted, how behaviours and ethics help protect data and describe what effect supplied data can have on their digital footprint.</p>	<p>By the end of Year 8 students explain how people design products, services and environments to meet present and future needs. For each of the four prescribed technologies contexts students explain how the features of technologies influence and impact on design decisions, and they create designed solutions based on evaluation of needs or opportunities. They use computational thinking to independently and collaboratively design and create effective digital solutions to real-world problems and opportunities by creating a variety of algorithmic designs and implementing them using a general-purpose programming language. They use a range of tools to make predictions and draw conclusions based on acquired, stored and validated data. Students develop criteria for success including sustainability and use these to judge the suitability of ideas, processes and solutions. They create, adapt and iterate design ideas and communicate to audiences using suitable technologies, technical terms and graphical representation techniques. Students explain how digital systems represent, transmit and secure data. They independently and collaboratively plan to document and manage production processes and to safely produce effective designed solutions for the intended purpose. Students identify cyber security threats and risks and explain how to protect against threats and manage the risks of sharing and curating their digital footprint.</p>
------------------------	---	---