



Australian
CURRICULUM
Review

GENERAL CAPABILITIES

DIGITAL LITERACY (previously ICT)

**Consultation – introductory information and
learning continua**

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.

REVIEW OF THE AUSTRALIAN CURRICULUM F–10: GENERAL CAPABILITIES

Information and Communication Technology (ICT) capability (Digital Literacy)

Introduction

The terms of reference for the Review of the Australian Curriculum F–10 (the Review), require the Australian Curriculum, Assessment and Reporting Authority (ACARA), to “revisit and improve where necessary, the learning continua for the general capabilities with reference to current research”.¹

General capabilities equip young Australians with the knowledge, skills, behaviours and dispositions to live and work successfully in the twenty-first century. General capabilities are developed through learning area content; they are not separate learning areas, subjects or isolated skills.

The F–10 Australian Curriculum includes seven general capabilities:

- Literacy
- Numeracy
- Critical and Creative Thinking
- Digital Literacy (formerly Information and Communication Technology (ICT) capability)
- Personal and Social capability
- Ethical Understanding
- Intercultural Understanding.

General capabilities are addressed through the content of the learning areas; discipline-based content knowledge is important for the development of general capabilities. The teaching of learning area content will be strengthened by the application of relevant general capabilities, as will the development of the general capabilities through appropriate learning area contexts.

Opportunities to develop general capabilities in learning area content vary. Some general capabilities are essential to, and best developed within specific learning areas; others support learning in any learning area. General capabilities are identified in content descriptions where they are developed or applied through learning area content. They are

¹ Australian Curriculum, Assessment and Reporting Authority (ACARA), 2020, *Terms of reference: Review of the Australian Curriculum F–10*, p. 4.

also identified in content elaborations where they offer opportunities to add depth and richness to student learning.

Organisation of the general capabilities

Each general capability has an introduction that provides a description of the capability and a rationale for its inclusion in the Australian Curriculum.

Each general capability is presented as either a learning continuum or a learning progression and is structured around elements and sub-elements.

A learning continuum has been developed for five of the seven general capabilities, and describes the knowledge, skills and behaviours that students can reasonably be expected to develop from Foundation to Year 10. The continua map common paths for the development of knowledge, skills and behaviours in each of the elements and sub-elements across six levels for Critical and Creative Thinking, Digital Literacy, Personal and Social capability, Ethical Understanding and Intercultural Understanding.

For the Literacy and Numeracy capabilities, more detailed learning progressions have been developed to describe the learning pathway(s) along which students typically progress regardless of age or year level. The National Literacy and Numeracy Learning Progressions describe the skills, understandings and capabilities students typically acquire as their proficiency increases in a particular aspect of the curriculum over time, and help teachers ascertain the stage of learning reached, identify any gaps in skills and knowledge, and plan for the next step to progress learning.

Review of the ICT capability

The Review of ICT capability followed a similar process to that of the other general capabilities:

- a) Research related to ICT capabilities was sourced and reviewed.
- b) An analysis of the learning continuum was undertaken for horizontal and vertical alignment.
- c) The continuum was compared with a range of learning area content descriptions to ensure the alignment of concepts and expectations.
- d) The continuum was compared to the continua of the other general capabilities to identify commonalities and align language and 'at level' descriptions across continua.
- e) An external expert panel was convened to critique and provide input into drafting improvements to the continuum.
- f) Evidence gathered in the research, analysis and comparison phases was used to refine and propose revisions of the continuum for consultation and feedback through ACARA's reference groups, advisory groups and expert panels.

The Review of ICT capability was also informed by research into digital intelligence and digital literacy.

The Review of the ICT capability learning continuum found:

- multiple terms to describe digital tools and environments
- language terms unique to the Digital Technologies curriculum that do not provide clear connections to other learning areas
- sub-elements that describe multiple skills
- sub-elements that do not provide clear links to content or context.

The Review identified the following opportunities to improve the ICT capability learning continuum:

- rename the capability to Digital Literacy
- revise the definition and structure of the capability by renaming, combining or removing elements and sub-elements
- rewrite statements to ensure levelness and clarity, taking into account feedback.

As a result of the Review, the following key changes were made to the ICT capability learning continuum:

- a) Based on the advice of the expert panel and the significant support from Reference Groups, the ICT capability was renamed Digital Literacy. The ACARA Board approved the name change.
- b) The description was revised to reflect this change as shown in Table 1.
- c) The structure was revised to better reflect the changed focus to Digital Literacy. Names of the elements and sub-elements in the continuum were revised to simplify language across the continuum and to use titles that more appropriately reflect the skill described within the element or sub-element. A comparison of the structure of the current to revised continuum is shown in Table 2.
- d) The sub-element descriptions were refined to improve the development sequence across levels one to six, and to more clearly describe the knowledge, skills and behaviours identified within the sub-elements.

Table 1: Comparison of the ICT capability original definition and the Digital Literacy definition

ICT capability	Digital Literacy
<p>Definition</p> <p>ICT Capability involves students: using ICT effectively and appropriately to access, create and communicate information and ideas, solve problems and work collaboratively in all learning areas at school and in their lives beyond school; and learning to make the most of the digital technologies available to them, adapting to new ways of doing things as technologies evolve and limiting the risks to themselves and others in a digital environment.</p>	<p>Definition</p> <p>Digital literacy encompasses the knowledge and skills students need to: create, manage, communicate and investigate data, information and ideas; solve problems; and work collaboratively at school and in their lives beyond school. Digital literacy involves students: critically identifying and appropriately selecting and using digital devices or systems; learning to make the most of the technologies available to them; adapting to new ways of doing things as technologies evolve; and protecting the safety of themselves and others in digital environments.</p>

Table 2: Comparison of the current elements and sub-elements of the ICT capability and the revised elements and sub-elements for the new Digital Literacy learning continuum

Current elements (ICT capability)	Current sub-elements (ICT capability)	Revised elements (Digital Literacy)	Revised sub-elements (Digital Literacy)
Applying social and ethical protocols and practices when using ICT	Recognise intellectual property	Practising digital safety and wellbeing	Manage digital wellbeing
			Manage online privacy and safety
			Manage digital identity
	Apply digital information security practices	Communicating and collaborating	Communicate
			Collaborate and exchange
		Investigating	Locate information
			Collect and collate data
	Apply personal security protocols	Creating	Interpret data
			Evaluate information

Current elements (ICT capability)	Current sub-elements (ICT capability)	Revised elements (Digital Literacy)	Revised sub-elements (Digital Literacy)
	Identify the impacts of ICT in society		Create content
Investigating with ICT	Define and plan information searches		Respect intellectual property
	Locate, generate and access data and information		
	Select and evaluate data and information	Managing and operating	Manage content
Creating with ICT	Generate ideas, plans and processes		Protect content
	Generate solutions to challenges and learning area tasks		Select and operate tools
Communicating with ICT	Collaborate, share and exchange		
	Understand computer mediated communications		
Managing and operating ICT	Select and use hardware and software		
	Understand ICT systems		
	Manage digital data		

Attachment 1 presents the updated description and learning continuum for Digital Literacy.

Attachment 2 presents the current learning continuum as a comparison.

Attachment 1. Digital Literacy – revised consultation version

Description

Digital literacy encompasses the knowledge and skills students need to: create, manage, communicate and investigate data, information and ideas; solve problems; and work collaboratively at school and in their lives beyond school.

Digital literacy involves students: critically identifying and appropriately selecting and using digital devices or systems; learning to make the most of the technologies available to them; adapting to new ways of doing things as technologies evolve; and protecting the safety of themselves and others in digital environments.

Structure

The Digital Literacy learning continuum is organised into five elements:

- Practising digital safety and wellbeing
- Communicating and collaborating
- Investigating
- Creating
- Managing and operating.

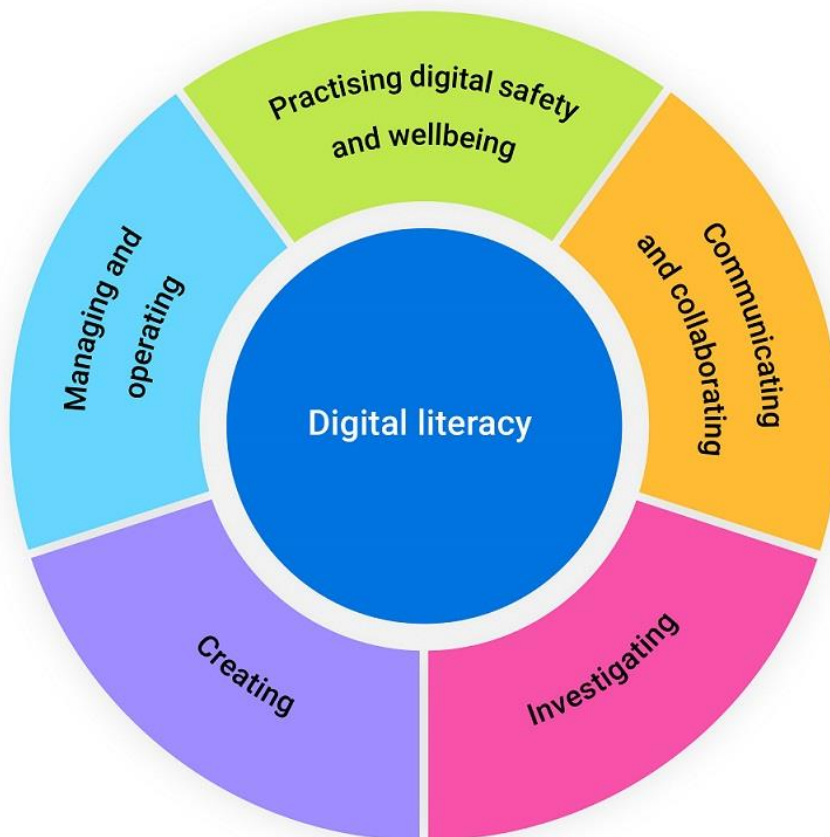


Figure 1: Organising elements for Digital Literacy general capability

Australian Curriculum: General capabilities – Digital Literacy (previously Information and Communication Technology).
Consultation curriculum

Each element comprises a set of sub-elements to describe the key skills and knowledge reflected in the element, as shown in Table 3.

Table 3: Elements and sub-elements of the Digital Literacy learning continuum

Element	Sub-elements
Practising digital safety and wellbeing	Manage digital wellbeing
	Manage online privacy and safety
	Manage digital identity
Communicating and collaborating	Communicate
	Collaborate and exchange
Investigating	Locate information
	Collect and collate data
	Interpret data
	Evaluate information
Creating	Plan and design
	Create content
	Respect intellectual property
Managing and operating	Manage content
	Protect content
	Select and operate tools

Practising digital safety and wellbeing

This element is organised into three sub-elements:

- Manage digital wellbeing – students understand the nature and impact of technology use on their health, work productivity, wellbeing and lifestyles, such as excessive screen time and multi-tasking.
- Manage online privacy and safety – students develop the appropriate technical, social, cognitive, communicative and decision-making skills to address online risks. They recognise the content risks that they face online, such as hurtful user-generated content, and the strategies involved in dealing with them.

- Manage digital identity – students recognise the importance of controlling and shaping their own digital identity by creating and curating their online identities to positively tell their stories, while recognising how personal use of digital media may have implications.

Communicating and collaborating

This element is organised into two sub-elements:

- Communicate – students recognise different types of peer-to-peer communication and collaboration strategies, tools and formats, and decide which methods are most effective for individual or collaborative goals.
- Collaborate and exchange – students develop the capacity to interact and collaborate with an online community of peers and experts for the construction and co-creation of knowledge. They are also able to leverage their technical skills to efficiently exchange ideas and work together, even when separated by distance.

Investigating

This element is organised into four sub-elements:

- Locate information – students curate information from digital resources. They effectively use research strategies to locate information and other resources. Students articulate their information and content needs, and effectively navigate information and content they encounter.
- Collect and collate data – students understand how data can be generated, how to process data based on statistical understanding, and how to create or use artificial intelligence (AI) algorithms to recognise significant patterns and improve decision-making processes. They explore relevant data sets and read, manage and process data from a variety of sources.
- Interpret data – students create and build knowledge by analysing data and communicating its meaning to others using various data visualisation tools. They present patterns, trends and analytical insights from data to facilitate problem-solving and decision making.
- Evaluate information – students are careful and critical of the information that they encounter when online, and exhibit discernment in their evaluation of the reliability and credibility of online information.

Creating

This element is organised into three sub-elements:

- Plan and design – students use digital tools to plan and manage a process that considers design constraints and risks.

- Create content – students execute plans for the design of digital content and products based on needs, practicality, efficiency and functionality. They develop, test and refine models to create original products or ethically repurpose or remix resources into new content.
- Respect intellectual property – students understand the ethical and legal responsibilities around ownership and remixing of online content, for example, plagiarism, copyright, fair use and licensing. They demonstrate responsibility and respect for others by protecting their own digital creations and crediting others' content when appropriate.

Managing and operating

This element is organised into three sub-elements:

- Manage content – students interact with information and data, save content using appropriate and logical conventions, and retrieve content from personal, networked and cloud spaces.
- Protect content – students identify potential threats and implement relevant cyber security practices, such as using secure passwords, and understand firewalls and anti-malware applications. They use technology without compromising their data and devices.
- Select and operate tools – students apply technical knowledge and skills to select, use and troubleshoot appropriate digital tools. They develop an understanding of hardware and software components, and the operations of appropriate digital systems, including their functions, processes and procedures. Students are able to transfer their knowledge when they explore new technologies.

Digital Literacy learning continuum – revised consultation version

	Sub-element	Level 1 (Foundation)	Level 2 (Years 1–2)	Level 3 (Years 3–4)	Level 4 (Years 5–6)	Level 5 (Years 7–8)	Level 6 (Years 9–10)
PRACTISING DIGITAL SAFETY AND WELLBEING	Manage digital wellbeing	manage the wellbeing of self by following adult directions at school and home to implement healthy practices with their use of tools	manage the wellbeing of self and others by participating in the creation of rules and applying them at school and home to implement healthy and manageable practices with their use of tools	manage the wellbeing of self and others by following an agreed code of conduct to support healthy and manageable practices with their use of tools	manage the wellbeing of self and others by following an agreed code of conduct, positively contributing to digital environments, and supporting healthy and manageable practices with their use of tools	manage the wellbeing of self and others by investigating tools and routines that help to regulate the use of digital environments and tools, making ethical choices to ensure a balanced pattern of use	manage their wellbeing by self-regulating personal use of tools and making constructive, healthy and manageable decisions when using tools and digital environments to promote the wellbeing of others
	Manage online privacy and safety	manage privacy of self by recognising that online environments often ask for information that should remain private, and asking permission of a trusted adult before sharing	manage privacy of self and others by identifying the importance of agreeing or disagreeing to personal information being shared online or on networked environments	manage privacy of self and others by identifying how to give and seek consent when sharing information online, recognising the questions to ask	manage privacy of self and others by recognising the importance of giving consent and seeking consent of others when sharing online, identifying risks that digital environments pose	manage privacy of self and others by recognising the benefits of online communication and participation, and act with appropriate awareness of the risks that digital environments pose	manage privacy by identifying and actively managing the risks to self and others when developing social relationships online with people who often maintain an anonymous identity
		manage online safety by identifying feelings of safe and unsafe, and who the trusted adults are to seek help from	manage online safety by identifying feelings of safe and unsafe, and that there are structures and people in place to help	manage online safety by recognising when feeling uncomfortable or unsafe, identifying how to report, and to whom negative or harmful behaviour should be reported	manage online safety by engaging in positive and safe behaviour when using tools and digital environments, including social interactions online or on networked devices, and identify the process of reporting negative or harmful behaviour	manage online safety by engaging in positive, safe and ethical behaviour when using tools and digital environments, including social interactions or on networked devices, and know the process for reporting online abuse	manage safety by engaging in positive, safe, legal and ethical behaviour when using digital tools and environments, and know how to report online abuse
	Manage digital identity	manage their digital identity by recognising that images, video, sound and information of themselves can be shared online for others to see	manage their digital identity by recognising content can exist on local devices as well as online for others to see and access	manage their digital identity by recognising that content written and posted online or using networked devices can be seen by others and can be helpful or harmful to themselves and others	manage their digital identity by recognising that content posted online or using networked devices may be public or private and can become a permanent record which may affect the reputation of themselves and others	manage their digital identity by investigating and curating their personal data, be aware of data collection technology used to track their online navigation, and recognise their online actions may impact the reputation of themselves and others	manage proactively their personal data, exhibiting integrity across online behaviours and managing the data collection technology used to track their online navigation
COMMUNICATING AND COLLABORATING	Communicate	communicate safely using simple tools to express ideas and make meaning	communicate safely using familiar tools to express ideas with appropriate audiences	communicate safely using a range of tools to express increasingly complex ideas, and adjusting to the intended audience	communicate safely using a range of tools to express complex ideas, and adjusting to the intended audience	communicate safely using tools purposely selected to effectively express complex ideas, and customising the message and medium for the intended audience	communicate safely using appropriate tools to effectively express complex ideas, and considering diversity of audience and underlying agendas

	Sub-element	Level 1 (Foundation)	Level 2 (Years 1–2)	Level 3 (Years 3–4)	Level 4 (Years 5–6)	Level 5 (Years 7–8)	Level 6 (Years 9–10)
	Collaborate and exchange	collaborate and safely share information with known peers and trusted adults using simple tools	collaborate and safely exchange information with known peers and trusted adults using familiar tools, taking different opinions and views into consideration	collaborate and safely exchange information with trusted audiences using a range of tools to explore a different point of view	collaborate and safely exchange information with trusted wider audiences using a range of tools to explore multiple points of view	collaborate and safely exchange information with increasingly wider audiences using a range of tools to examine multiple points of view	collaborate and exchange information with a wide audience using a range of tools and working in team roles to examine how exchanges change with public audiences
INVESTIGATING	Locate information	locate information through search engines and in documents by using search terms provided	locate information through search engines and in documents by applying search terms, and select relevant information	locate information through search engines and in documents by applying specific search terms and selecting and retrieving relevant information from multiple of sources	locate information through search engines and in documents by applying specific search terms based on set criteria, and selecting and retrieving relevant information from multiple sources	locate, select and retrieve relevant information from multiple sources, exploring advanced search functions and targeted criteria	locate relevant information by applying advanced search functions across multiple sources involving purposefully selected and contextually specific terms and criteria
	Collect and collate data	collect data by counting objects with simple tools	collect data by counting, measuring and observing with familiar tools	collect and access data using a range of tools and methods in response to a defined question	collect and access data using a range of tools and methods in response to a defined question or problem	collect and access data from a range of sources using specialised tools in response to problems, and evaluate it for relevance	collect and evaluate quantitative and qualitative data using specialised tools and processes in the context of identified problems
	Interpret data	sort and group objects by feature using simple tools	classify and group data using familiar tools to answer simple questions	organise, summarise and visualise data using a range of tools to identify patterns and answer questions	analyse and visualise data using a range of tools to identify patterns and make predictions	analyse and visualise data by selecting and using a range of tools to infer relationships and make predictions	analyse and visualise multi-dimensional data by selecting and using a range of interactive tools to draw conclusions and make predictions
	Evaluate information	evaluate information from digital sources by prioritising the most relevant	evaluate information collected using digital sources and explain why information was prioritised	evaluate information collected using digital sources and explain the usefulness of information to the topic of study	evaluate information and opinion collected from digital sources and identify the suitability and credibility of the information to the topic of study	evaluate information and opinion collected from digital sources and compare a range of sources for authenticity and accuracy	analyse and evaluate information and opinion for bias, contradiction and inconsistency from a range of digital sources
CREATING	Plan and develop	use simple tools to follow or contribute to a basic plan for creating purposefully designed products	use familiar tools to prepare simple plans to record ideas, test theories and create purposefully designed products	use a range of tools to generate and record ideas, test theories to plan and create innovative products	use a range of tools to effectively record ideas, illustrate thinking, test theories, and plan and create innovative products	use independently selected tools to effectively generate ideas, illustrate thinking and test theories for creating innovative products	use appropriate tools to articulate ideas and concepts, and plan and create the development of innovative products

	Create content	create content using simple tools for a familiar audience	create content using familiar tools, experimenting with functions and elements to convey meaning to a familiar audience	create content using a range of tools demonstrating appropriate choice over functions and elements to convey meaning for a selected audience	create content using a range of tools demonstrating appropriate choice and control of functions and elements to convey meaning for a selected audience	create content using independently selected tools effectively using a range of control functions and elements suited to the audience and purpose	create content using appropriate tools showing awareness of functions, customisation opportunities and considering accessibility suited to the audience and purpose
	Respect intellectual property	recognise ownership of their own products	recognise ownership of products that others produce or that are produced collaboratively	respect products created by someone else by acknowledging when they use them and use strategies such as indicating the source	respect intellectual property by identifying the legal obligations regarding the ownership and appropriate use of products exploring creative commons and applying some referencing conventions	respect intellectual property by applying practices that comply with ethical and legal obligations, referencing conventions, creative commons and copyright surrounding ownership and use of digital products	respect intellectual property by identifying and applying practices that meet legal and ethical obligations, creative commons, copyright and trademark protocols
MANAGING AND OPERATING	Manage content	save and retrieve information and data	save, store and retrieve information and data in agreed locations	save information and data following agreed class conventions when naming files and folders, storing and retrieving information and data in and from appropriate locations	save information and data determining an appropriate convention when naming files and creating folders, storing information and data in appropriate locations based on file type, file use or shareability	save information and data by applying and working within the boundaries of a variety of configurations and conventions, storing content in appropriate and logical locations considering reliability, accessibility and integrity	save information and data by devising appropriate structures for folders to differentiate and order file content logically and implement failsafe measures to guard against corrupt or missing content
	Protect content	protect content by recognising there are different ways to secure and access information, data and devices such as biometric and passcodes, effectively using these on school and home devices	protect content by identifying a range of ways to secure and access information, data and devices including biometrics or passwords and when appropriate, independently use these on school and home devices	protect content by determining the appropriate strategies to protect and secure tools, information and data, exploring the need for and opportunities to backup	protect content by applying strategies independently for securing digital content, backing up data and recognising the importance of multifactor authentication associated with online environments	protect content by recognising the need for and implementing data backup and security strategies considering storage location and transmission of data	protect content by using a range of security controls such as preventative, deterrent and corrective, to secure back up and protect information, assess the risks associated with online environments, and establish appropriate security codes of conduct
	Select and operate tools	operate selected hardware and software to create, store and edit products and seek help when encountering a problem	select and operate a range of appropriate hardware and software and attempt to solve a problem before seeking help	select and operate a range of hardware and software including the use of technologies, to improve efficiency and productivity, and attempt to solve a problem before seeking help, transferring their	select and operate a range of hardware and software, including the use technologies to solve problems and complete tasks, using basic troubleshooting procedures, transferring their	select and operate a wide range of hardware and software, appropriately using advanced features and functions, independently troubleshooting common malfunctions	select and operate appropriate hardware and software with confidence to independently solve problems and

				knowledge and skills when exploring emerging technologies	knowledge and skills when using emerging technologies	and transferring their knowledge and skills to emerging technologies	complete tasks, and troubleshoot common malfunctions independently, accurately transferring knowledge and skills to emerging technologies
--	--	--	--	---	---	--	---

Attachment 2

ICT capability learning continuum – current version

Sub-element	Level 1 Typically, by the end of F	Level 2 Typically, by the end of Year 2	Level 3 Typically, by the end of Year 4	Level 4 Typically, by the end of Year 6	Level 5 Typically, by the end of Year 8	Level 6 Typically, by the end of Year 10
Applying social and ethical protocols and practices when using ICT element						
Recognise intellectual property	recognise ownership over their own digital work	recognise ownership of digital products that others produce and that what they create or provide can be used or misused by others	acknowledge when they use digital products created by someone else, and start to indicate the source	identify the legal obligations regarding the ownership and use of digital products and apply some referencing conventions	apply practices that comply with legal obligations regarding the ownership and use of digital products resources	identify and describe ethical dilemmas and consciously apply practices that protect intellectual property
Apply digital information security practices	follow class rules about using digital information	follow class rules about applying selected standard guidelines and techniques to secure digital information	independently apply standard guidelines and techniques for particular digital systems to secure digital information	independently apply strategies for determining and protecting the security of digital information and assess the risks associated with online environments	independently apply strategies for determining the appropriate type of digital information suited to the location of storage and adequate security for online environments	use a range of strategies for securing and protecting information, assess the risks associated with online environments and establish appropriate security strategies and codes of conduct
Apply personal security protocols	follow class rules when sharing personal information with known audiences and demonstrate an awareness of applying social protocols when using ICT to communicate	follow class guidelines when sharing personal information and apply basic social protocols when using ICT to communicate with known audiences	apply standard guidelines and take action to avoid the common dangers to personal security when using ICT and apply appropriate basic social protocols when using ICT to communicate with unknown audiences	identify the risks to identity, privacy and emotional safety for themselves when using ICT and apply generally accepted social protocols when sharing information in online environments, taking into account different social and cultural contexts	identify and value the rights to identity, privacy and emotional safety for themselves and others when using ICT and apply generally accepted social protocols when using ICT to collaborate with local and global communities	independently apply appropriate strategies to protect rights, identity, privacy and emotional safety of others when using ICT, and discriminate between protocols suitable for different communication tools when collaborating with local and global communities
Identify the impacts of ICT in society	identify how they use ICT in multiple ways on multiple devices identify how ICT is used at home and at school	identify how ICT is used at home and at school	identify the value and role of ICT use at home and school	explain the main uses of ICT at school, home and in the local community, and recognise its potential positive and negative impacts on their lives	explain the benefits and risks of the use of ICT for particular people in work and home environments	assess the impact of ICT in the workplace and in society, and speculate on its role in the future and how they can influence its use
Investigating with ICT element						
Define and plan information searches	use ICT to identify where information is located	use ICT to identify, record and classify textual and graphic information to show what is known and what needs to be investigated	use ICT to plan an information search or generation of information, recognising some pattern within the information	use a range of ICT to identify and represent patterns in sets of information and to pose questions to guide searching for, or generating, further information	use a range of ICT to analyse information in terms of implicit patterns and structures as a basis to plan an information search or generation	select and use a range of ICT independently and collaboratively, analyse information to frame questions and plan search strategies or data generation
Locate, generate and access data and information	use icons to locate or generate required information	locate information from a given set of digital sources	locate, retrieve or generate information from a range of digital sources	locate, retrieve or generate information using search engines and simple search functions and	locate, retrieve or generate information using search facilities and organise information in meaningful ways	use advanced search tools and techniques or simulations and digital models to locate or generate precise data and

Sub-element	Level 1 Typically, by the end of F	Level 2 Typically, by the end of Year 2	Level 3 Typically, by the end of Year 4	Level 4 Typically, by the end of Year 6	Level 5 Typically, by the end of Year 8	Level 6 Typically, by the end of Year 10
				classify information in meaningful ways		information that supports the development of new understandings
Select and evaluate data and information	explain how located data or information was used	explain the usefulness of located data or information	explain why located data or information was selected	assess the suitability of data or information using a range of appropriate given criteria	assess the suitability of data or information using appropriate own criteria	develop and use criteria systematically to evaluate the quality, suitability and credibility of located data or information and sources
Creating with ICT element						
Generate ideas, plans and processes	use ICT to follow or contribute to a simple plan for a solution	use ICT to prepare simple plans to find solutions or answers to questions	use ICT to generate ideas and plan solutions	use ICT effectively to record ideas, represent thinking and plan solutions	use appropriate ICT to collaboratively generate ideas and develop plans	select and use ICT to articulate ideas and concepts, and plan the development of complex solutions
Generate solutions to challenges and learning area tasks	use ICT as a creative tool to generate simple solutions, modifications or data representations for personal or school purposes	experiment with ICT as a creative tool to generate simple solutions, modifications or data representations for particular audiences or purposes	create and modify simple digital solutions, creative outputs or data representation/transformation for particular purposes	independently or collaboratively create and modify digital solutions, creative outputs or data representation/transformation for particular audiences and purposes	design and modify simple digital solutions, or multimodal creative outputs or data transformations for particular audiences and purposes following recognised conventions	design, modify and manage complex digital solutions, or multimodal creative outputs or data transformations for a range of audiences and purposes
Communicating with ICT element						
Collaborate, share and exchange	use purposefully selected ICT tools safely to view information shared by trusted adults	use purposefully selected ICT tools safely to share and exchange information with appropriate local audiences	use appropriate ICT tools safely to share and exchange information with appropriate known audiences	select and use appropriate ICT tools safely to share and exchange information and to safely collaborate with others	select and use appropriate ICT tools safely to lead groups in sharing and exchanging information, and taking part in online projects or active collaborations with appropriate global audiences	select and use a range of ICT tools efficiently and safely to share and exchange information, and to collaboratively and purposefully construct knowledge
Understand computer mediated communications	understand that messages are recorded, viewed or sent in computer mediated communications for others to receive	understand that computer mediated communications may be received later by the receiver	understand that computer mediated communications are directed to an audience for a purpose	understand that particular forms of computer mediated communications and tools are suited to synchronous or asynchronous and one-to-one or group communications	understand that there are various methods of collaboration through computer mediated communications that vary in form and control	understand that computer mediated communications have advantages and disadvantages in supporting active participation in a community of practice and the management of collaboration on digital materials
Managing and operating ICT element						
Select and use hardware and software	identify and safely operate ICT systems to complete relevant simple specified tasks and seek	identify and safely operate a selected range of appropriate devices, software, functions and commands when operating an	identify and independently operate a range of devices, software, functions and commands, taking into consideration ergonomics when	select from, and safely operate, a range of devices to undertake specific tasks and use basic	independently select and operate a range of devices by adjusting relevant software functions to suit specific tasks, and independently use common	justify the selection of, and optimise the operation of, a selected range of devices and software functions to complete specific tasks, for different

Sub-element	Level 1 Typically, by the end of F	Level 2 Typically, by the end of Year 2	Level 3 Typically, by the end of Year 4	Level 4 Typically, by the end of Year 6	Level 5 Typically, by the end of Year 8	Level 6 Typically, by the end of Year 10
	help when encountering a problem	ICT system and attempt to solve a problem before seeking help	operating appropriate ICT systems, and seek solutions when encountering a problem	troubleshooting procedures to solve routine malfunctions	troubleshooting procedures to solve routine malfunctions	purposes and in different social contexts
Understand ICT systems	identify common consumer ICT systems with input and output functions	identify the main components of common consumer ICT systems, their fundamental functions, and describe them using basic ICT terminology	identify and compare the use of the main components of different ICT systems	identify, compare and classify basic ICT system components	identify and compare networked ICT system components including between hardware, software and data	apply an understanding of networked ICT system components to make changes to functions, processes, procedures and devices to fit the purpose of the solutions
Manage digital data	save and retrieve digital data with support	manage and maintain digital data with guidance	manage and maintain digital data using common methods	manage and maintain data on different storage mediums – locally and on networks	manage and maintain data for groups of users using a variety of methods and systems	manage and maintain data securely in a variety of storage mediums and formats