

Years 7–10 Digital Technologies

Australian Curriculum Version 9.0: Sequence of content descriptions

The following table provides a sequence of content descriptions aligned to the strands and sub-strands for Years 7–10 Digital Technologies. Content descriptions identify the learning area’s essential knowledge, understanding and skills. This resource can be used to support curriculum planning. A similar resource is available for Prep–Year 6 Digital Technologies.

Strand: Knowledge and understanding		
Sub-strands	Years 7–8 band	Years 9–10 band
Digital systems	explain how hardware specifications affect performance and select appropriate hardware for particular tasks and workloads AC9TDI8K01	
	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
Data representation	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
	explain how and why digital systems represent integers in binary AC9TDI8K04	investigate simple data compression techniques AC9TDI10K03
Strand: Processes and production skills		
Sub-strands	Years 7–8 band	Years 9–10 band
Acquiring, managing and analysing data	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
Investigating and defining	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
Generating and designing	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 the user experience of a digital system AC9TDI8P07	design and prototype the user experience of a digital system AC9TDI10P07
	generate, modify, communicate and evaluate alternative designs AC9TDI8P08	generate, modify, communicate and critically evaluate alternative designs AC9TDI10P08

Strand: Processes and production skills		
Sub-strands	Years 7–8 band	Years 9–10 band
Producing and implementing	implement, 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
Evaluating	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
Collaborating and managing	select and use a range of digital tools efficiently, including unfamiliar features, to create, locate and communicate content, consistently applying common conventions AC9TDI8P11	select and use emerging digital tools and advanced features to create and communicate interactive content for a diverse audience AC9TDI10P11
	select and use a range of digital tools efficiently and responsibly to share content online, and plan and manage individual and collaborative agile projects AC9TDI8P12	use simple project management tools to plan and manage individual and collaborative agile projects, accounting for risks and responsibilities AC9TDI10P12
Privacy and security	explain how multi-factor authentication protects an account when the password is compromised and identify phishing and other cyber security threats AC9TDI8P13	develop cyber security threat models, and explore a software, user or software supply chain vulnerability AC9TDI10P13
	investigate and manage the digital footprint existing systems and student solutions collect, and assess if the data is essential to their purpose AC9TDI8P14	apply the Australian Privacy Principles to critique and manage the digital footprint that existing systems and student solutions collect AC9TDI10P14

More information

If you would like more information, please visit the QCAA website www.qcaa.qld.edu.au. Alternatively, email the K–10 Curriculum and Assessment branch at australiancurriculum@qcaa.qld.edu.au.

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