V 9.0 Australian Curriculum: Digital Technologies Years 7–10 achievement standards■ and aligned content descriptions ■ on a page

Year 7	Year 8	Year 9	Year 10
Processes and production skills strand		Processes and production skills strand	
Investigating and defining	Generating and designing / Evaluating	Investigating and defining	Generating and designing

Students develop and modify creative digital solutions, decompose real-world problems, and evaluate alternative solutions against user stories and design criteria.

define and decompose real-world problems with design criteria and by creating user stories AC9TDI8P04 design the user experience of a digital system AC9TDI8P07

generate, modify, communicate and evaluate alternative designs AC9TDI8P08

evaluate existing and student solutions against the design criteria, user stories and possible future impact AC9TDI8P10

Students develop and modify innovative digital solutions, decompose real-world problems, and critically evaluate alternative solutions against stakeholder elicited user stories.

define and decompose real-world problems with design criteria and by interviewing stakeholders to create user stories AC9TDI10P04

design and prototype the user experience of a digital system AC9TDI10P07

generate, modify, communicate and critically evaluate alternative designs AC9TDI10P08

evaluate existing and student solutions against the design criteria, user stories, possible future impact and opportunities for enterprise AC9TDI10P10

Knowledge and understanding strand	Processes and production skills strand	Knowledge and understanding strand	Processes and production skills strand
Data representation	Acquiring, managing and analysing data	Data representation	Acquiring, managing and analysing data

Students acquire, interpret and model data with spreadsheets and represent data with integers and binary.

investigate how digital systems represent text, image and audio data using integers AC9TDI8K03 explain how and why digital systems represent integers in binary AC9TDI8K04

acquire, store and validate data from a range of sources using software, including spreadsheets and databases AC9TDI8P01

analyse and visualise data using a range of software, including spreadsheets and databases, to draw conclusions and make predictions by identifying trends AC9TDI8P02

model and query the attributes of objects and events using structured data AC9TDI8P03

Students acquire, interpret and model complex data with databases and represent documents as content, structure and presentation.

represent documents online as content (text), structure (markup) and presentation (styling) and explain why such representations are important AC9TDI10K02

investigate simple data compression techniques AC9TDI10K03

develop techniques to acquire, store and validate data from a range of sources using software, including spreadsheets and databases AC9TDI10P01

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 entities and their relationships using structured data AC9TDI10P03

Processes and production skills strand		Processes and production skills strand	
Generating and designing	Producing and implementing	Generating and designing	Producing and implementing

Students design and trace algorithms and implement them in a general-purpose programming language.

design algorithms involving nested control structures and represent them using flowcharts and pseudocode AC9TDI8P05

trace algorithms to predict output for a given input and to identify errors AC9TDI8P06

implement, modify and debug programs involving control structures and functions in a general-purpose programming language AC9TDI8P09

Students design and validate algorithms and implement them, including in an object-oriented programming language.

design algorithms involving logical operators and represent them as flowcharts and pseudocode AC9TDI10P05

validate algorithms and programs by comparing their output against a range of test cases AC9TDI10P06

implement, modify and debug modular programs, applying selected algorithms and data structures, including in an object-oriented programming language AC9TDI10P09

Knowledge and understanding strand	Processes and production skills strand	Knowledge and understanding strand	Processes and production skills strand
Digital systems	Privacy and security	Digital systems	Privacy and security

Students select appropriate hardware for particular tasks, explain how data is transmitted and secured in networks, and identify cyber security threats.

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

explain how multi-factor authentication protects an account when the password is compromised and identify phishing and other cyber security threats AC9TDI8P13

Students explain how digital systems manage, control and secure access to data; and model cyber security threats and explore a vulnerability.

investigate how hardware and software manage, control and secure access to data in networked digital systems AC9TDI10K01

develop cyber security threat models, and explore a software, user or software supply chain vulnerability AC9TDI10P13

Processes and production skills strand		Processes and production skills strand	
Collaborating and managing		Collaborating and managing	

Students select and use a range of digital tools efficiently and responsibly to create, locate and share content; and to plan, collaborate on and manage projects.

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 a range of digital tools efficiently and responsibly to share content online, and plan and manage individual and collaborative agile projects AC9TDI8P12

Students use advanced features of digital tools to create interactive content, and to plan, collaborate on and manage agile projects.

select and use emerging digital tools and advanced features to create and communicate interactive content for a diverse audience AC9TDI10P11

use simple project management tools to plan and manage individual and collaborative agile projects, accounting for risks and responsibilities AC9TDI10P12

Processes and production skills strand		Processes and production skills strand	
Privacy and security		Privacy and security	

Students manage their digital footprint.

investigate and manage the digital footprint existing systems and student solutions collect, and assess if the data is essential to their purpose AC9TDI8P14

Students apply privacy principles to manage digital footprints.

apply the Australian Privacy Principles to critique & manage the digital footprint that existing systems & student solutions collect AC9TDI10P14