



Curriculum comparison

Years 7 and 8

Australian Curriculum	Australian Curriculum Version 8.4
Years 7 and 8	Years 7 and 8
AC9TDI8K01 explain how hardware specifications affect performance and select appropriate hardware for particular tasks and workloads	Investigate how data is transmitted and secured in wired, wireless and mobile networks, and how the specifications affect performance (ACTDIK023)
AC9TDI8K02 investigate how data is transmitted and secured in wired and wireless networks including the internet	Investigate how digital systems represent text, image and audio data in binary (ACTDIK024)
AC9TDI8K03 investigate how digital systems represent text, image and audio data using integers	Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025)
AC9TDI8K04 explain how and why digital systems represent integers in binary	Analyse and visualise data using a range of software to create information, and use structured data to model objects or events (ACTDIP026)
AC9TDI8P01 acquire, store and validate data from a range of sources using software, including spreadsheets and databases	Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)
AC9TDI8P02 analyse and visualise data using a range of software, including spreadsheets and databases, to draw conclusions and make predictions by identifying trends	Design the user experience of a digital system, generating, evaluating and communicating alternative designs (ACTDIP028)
AC9TDI8P03 model and query the attributes of objects and events using structured data	Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors (ACTDIP029)
AC9TDI8P04 define and decompose real world problems with design criteria and by creating user stories	Implement and modify programs with user interfaces involving branching, iteration and functions in a general purpose programming language (ACTDIP030)
AC9TDI8P05 design algorithms involving nested control structures and represent them using flowcharts and pseudocode	Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability (ACTDIP031)
AC9TDI8P06 trace algorithms to predict output for a given input and to identify errors	Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032)
AC9TDI8P07 design the user experience of a digital system	
AC9TDI8P08 generate, modify, communicate and evaluate alternative designs	



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AC9TDI8P09 implement, modify and debug programs involving control structures and functions in a general purpose programming language	
AC9TDI8P10 evaluate existing and student solutions against the design criteria, user stories and possible future impact	
AC9TDI8P11 select and use a range of digital tools efficiently, including unfamiliar features, to create, locate and communicate content, consistently applying common conventions	
AC9TDI8P12 select and use a range of digital tools efficiently and responsibly to share content online, and plan and manage individual and collaborative agile projects	
AC9TDI8P13 explain how multi factor authentication protects an account when the password is compromised and identify phishing and other cyber security threats	
AC9TDI8P14 investigate and manage the digital footprint existing systems and student solutions collect and assess if the data is essential to their purpose	



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Achievement Standards

Learning area achievement standard

By the end of Year 8 students explain how people design, innovate and produce products, services and environments for preferred futures. For each of the 4 prescribed technologies contexts students explain how the features of technologies impact on design decisions, and create designed solutions based on analysis of needs or opportunities. They acquire, interpret and model with spreadsheets and represent data with integers and binary. Students design and trace algorithms; and implement them in a general-purpose programming language. Students create and adapt design ideas, processes and solutions, and justify their decisions against developed design criteria that include sustainability. They communicate design ideas and solutions to audiences using technical terms and graphical representation techniques, including using digital tools. They select appropriate hardware for particular tasks, explain how data is transmitted and secured in networks, and identify cyber security threats. They use a range of digital tools to individually and collaboratively document and manage production processes to safely and responsibly produce designed or digital solutions for the intended purpose. Students manage their digital footprint.

Subject achievement standard

By the end of Year 8 students develop and modify creative digital solutions, decompose real-world problems, and evaluate alternative solutions against user stories and design criteria. Students acquire, interpret and model data with spreadsheets and represent data with integers and binary. They design and trace algorithms and implement them in a general-purpose programming language. Students select appropriate hardware for particular tasks, explain how data is transmitted and secured in networks, and identify cyber security threats. They 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. Students manage their digital footprint.

Australian Curriculum Version 8.4

Achievement Standards

Learning achievement standard

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.

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.

Achievement standard

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. 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 from a range of sources to model and create solutions. They use appropriate protocols when communicating and collaborating online.



Curriculum comparison

Years 9 and 10

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Years 9 and 10	Years 9 and 10
AC9TDI10K01 investigate how hardware and software manage, control and secure access to data in networked digital systems	Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital system (ACTDIK034)
AC9TDI10K02 represent documents online as content (text), structure (markup) and presentation (styling) and explain why such representations are important	Analyse simple compression of data and how content data are separated from presentation (ACTDIK035)
AC9TDI10K03 investigate simple data compression techniques	Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements (ACTDIP036)
AC9TDI10P01 develop techniques to acquire, store and validate data from a range of sources using software, including spreadsheets and databases	Analyse and visualise data to create information and address complex problems, and model processes, entities and their relationships using structured data (ACTDIP037)
AC9TDI10P02 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	Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs (ACTDIP038)
AC9TDI10P03 model and query entities and their relationships using structured data	Design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics (ACTDIP039)
AC9TDI10P04 define and decompose real world problems with design criteria and by interviewing stakeholders to create user stories	Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases (ACTDIP040)
AC9TDI10P05 design algorithms involving logical operators and represent them as flowcharts and pseudocode	Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language (ACTDIP041)
AC9TDI10P06 validate algorithms and programs by comparing their output against a range of test cases	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)
AC9TDI10P07 design and prototype the user experience of a digital system	Create interactive solutions for sharing ideas and information online, taking into account safety, social contexts and legal responsibilities (ACTDIP043)
AC9TDI10P08 generate, modify, communicate and critically evaluate alternative designs	Plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability (ACTDIP044)



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AC9TDI10P09 implement, modify and debug modular programs, applying selected algorithms and data structures, including in an object oriented programming language	
AC9TDI10P10 evaluate existing and student solutions against the design criteria, user stories, possible future impact and opportunities for enterprise	
AC9TDI10P11 select and use emerging digital tools and advanced features to create and communicate interactive content for a diverse audience	
AC9TDI10P12 use simple project management tools to plan and manage individual and collaborative agile projects, accounting for risks and responsibilities	
AC9TDI10P13 develop cyber security threat models, and explore a software, user or software supply chain vulnerability	
AC9TDI10P14 apply the Australian Privacy Principles to critique and manage the digital footprint that existing systems and student solutions collect	



Curriculum comparison

Years 9 and 10

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Achievement Standards	Achievement Standards
<p>By the end of Year 10 students develop and modify innovative digital solutions, decompose real-world problems, and critically evaluate alternative solutions against stakeholder elicited user stories. Students acquire, interpret and model complex data with databases and represent documents as content, structure and presentation. They design and validate algorithms and implement them, including in an object-oriented programming language. Students explain how digital systems manage, control and secure access to data; and model cyber security threats and explore a vulnerability. They use advanced features of digital tools to create interactive content, and to plan, collaborate on, and manage agile projects. Students apply privacy principles to manage digital footprints.</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 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>