

# Comparison of AC v8.4 to v9.0

Years 9–10 band: Digital Technologies

Key	same/refined	removed	new	moved
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**Note:**

- the key applies to the content descriptions only
- v8.4 content descriptions may have been reordered to align with v9.0 content descriptions.

Version 8.4			Version 9.0		
Achievement standard			Achievement standard		
<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>			<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>		
Strands	Sub-strands	Content descriptions	Content descriptions	Sub-strands	Strands
Knowledge and understanding	Digital systems	investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems ACTDIK034	investigate how hardware and software manage, control and secure access to data in networked digital systems AC9TDI10K01	Digital systems	Knowledge and understanding
	Representation of data	analyse simple compression of data and how content data are separated from presentation ACTDIK035	represent documents online as <b>content (text)</b> , <b>structure (markup)</b> and <b>presentation (styling)</b> and explain why such representations are important AC9TDI10K02  investigate simple data compression techniques AC9TDI10K03	Data representation	
Processes and production skills	Collecting, managing and analysing data	develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, considering privacy and security requirements ACTDIP036	develop techniques to acquire, store and validate data from a range of sources using software, <b>including spreadsheets and databases</b> AC9TDI10P01	Acquiring, managing and analysing data	Processes and production skills
		analyse and visualise data to create information and address complex problems, and model processes, entities and their relationships using structured data ACTDIP037	analyse and visualise data interactively using a range of software, <b>including spreadsheets and databases</b> , to draw conclusions and make predictions by identifying trends and outliers AC9TDI10P02		
			model and query entities and their relationships using structured data AC9TDI10P03		
	Investigating and defining	define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs ACTDIP038	define and decompose real world problems with <b>design criteria</b> and by interviewing stakeholders to create user stories AC9TDI10P04	Investigating and defining	
	Generating and designing	design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases ACTDIP040	design algorithms involving <b>logical operators</b> and represent them as <b>flowcharts</b> and <b>pseudocode</b> AC9TDI10P05  validate algorithms and programs by comparing their output against a range of test cases AC9TDI10P06	Generating and designing	
		design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability, and aesthetics ACTDIP039	design and prototype the user experience of a digital system AC9TDI10P07  generate, modify, communicate and critically evaluate alternative designs AC9TDI10P08		
	Producing and implementing	implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language ACTDIP041	implement, modify and <b>debug</b> modular programs, applying selected algorithms and data structures, including in an object oriented programming language AC9TDI10P09	Producing and implementing	
	Evaluating	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	evaluate existing and student solutions against the <b>design criteria</b> , <b>user stories</b> , possible future impact and opportunities for enterprise AC9TDI10P10	Evaluating	
Collaborating and managing	create interactive solutions for sharing ideas and information online, taking into account safety, social contexts and legal responsibilities ACTDIP043	select and use emerging digital tools and advanced features to create and communicate interactive content for a diverse audience AC9TDI10P11	Collaborating and managing		
	plan and manage projects using an iterative and collaborative approach, identifying risks and considering safety and sustainability ACTDIP044	use simple project management tools to plan and manage individual and collaborative agile projects, accounting for risks and responsibilities AC9TDI10P12			

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			<u>develop cyber security threat models, and explore a software, user or software supply chain vulnerability</u> AC9TDI10P13	Privacy and security
			<u>apply the Australian Privacy Principles to critique and manage the digital footprint that existing systems and student solutions collect</u> AC9TDI10P14	

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