

Digital Technologies 7 & 8 (Stage 4)	Australian Curriculum Digital Technologies Outcomes 7–8									
	Investigate how data is transmitted and secured in wired, wireless and mobile networks, and how the specifications affect performance (ACTDIK023) ^{AC}	Investigate how digital systems represent text, image and audio data in binary (ACTDIK024) ^{AC}	Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025) ^{AC}	Analyse and visualise data using a range of software to create information, and use structured data to model objects or events (ACTDIP026) ^{AC}	Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027) ^{AC}	Design the user experience of a digital system, generating, evaluating and communicating alternative designs (ACTDIP028) ^{AC}	Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors (ACTDIP029) ^{AC}	Implement and modify programs with user interfaces involving branching, iteration and functions in a general-purpose programming language (ACTDIP030) ^{AC}	Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability (ACTDIP031) ^{AC}	Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032) ^{AC}
<div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #669933; margin-right: 5px;"></div> <p>* Darker shading indicates a primary outcome</p> </div>										
Part 1: Knowledge and understanding strand										
Understanding digital systems										
Understanding data										
Understanding programming										
Understanding networks										
Understanding project management										
Part 2: Projects: Processes and production skills strand										
Programming										
Guided project: Extended guessing game										
Project: Multiplication quiz machine										
Project: Simon says – programming a game										
Project: Programming your own text-based adventure game										
Project: Embedded systems										
Modelling and simulation										
Guided project: Using spreadsheets										
Project: The chessboard problem										
Project: Build your own interactive temperature converter										
Project: Roll the dice										
Digital design										
Guided project: Image editing										
Project: A mosaic mural for the classroom										
Project: Comparing website builders										
Project: Choose-your-own-adventure website										
Project: 3D design and printing										
Data analysis and visualisation										
Guided project: Information systems and databases										
Project: Class database										
Project: Adventures in data diving										
Robotics										
Guided project: Introducing robotics										
Project: Robo Olympics										
Project: Sci-fi simulations										
Project: Robots walking the line										

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