Content Descriptions

Australian Curriculum Levels 5-6	Western Australian Year 6 Syllabus
Digital systems	**Digital systems**
Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014)	Digital systems have components with basic functions and interactions that may be connected together to form networks which transmit different types of data (ACTDIK014)
Representation of data	**Representation of data**
Examine how whole numbers are used to represent all data in digital systems (ACTDIK015)	Whole numbers are used to represent data in a digital system (ACTDIK015)
Collecting, managing and analysing data	**Collecting, managing and analysing data**
Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)	Collect, sort, interpret and visually present different types of data using software to manipulate data for a range of purposes (ACTDIP016)
Investigating and defining	**Investigating and defining**
Define problems in terms of data and functional requirements drawing on previously solved problems (ACTDIP017)	Define a problem, and a set of sequenced steps, with users making decisions to create a solution for a given task (WATPPS33) Identify available resources (WATPPS34)
Generating and designing	**Designing**
Design a user interface for a digital system (ACTDIP018) Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)	Design, modify, follow and represent both diagrammatically, and in written text, alternative solutions using a range of techniques, appropriate technical terms and technology (WATPPS35)
	Digital implementation
	Design, modify, follow and represent both diagrammatically, and in written text, simple algorithms (sequence of steps) involving branching (decisions) and iteration (repetition) (ACTDIP019)
Producing and implementing	**Producing and implementing**
Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)	Select, and apply, safe procedures when using a variety of components and equipment to make (WATPPS36)
	Digital Implementation
	Implement and use simple visual programming environments that include branching (decisions), iteration (repetition) and user input (ACTDIP020)
Evaluating	**Evaluating**
Explain how student solutions and existing information systems are sustainable and meet current and future local community needs (ACTDIP021)	Develop collaborative criteria to evaluate and justify design processes and solutions (WATPPS37)
Collaborating and managing	**Collaborating and managing**
Plan, create and communicate ideas and information, including collaboratively online, applying agreed ethical, social (ACTDIP022)	Work independently, or collaboratively when required, considering resources, to plan, develop and communicate ideas and information for solutions (WATPPS38)
	Digital implementation
	Manage the creation and communication of information, including online collaborative projects, using agreed social, ethical and technical protocols (ACTDIP022)

Achievement Standards

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By the end of Year 6, students explain the fundamentals of digital system components (hardware, software and networks) and how digital systems are connected to form networks. They explain how digital systems use whole numbers as a basis for representing a variety of data types. Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems. They incorporate decision-making, repetition and user interface design into their designs and implement their digital solutions, including a visual program. They explain how information systems and their solutions meet needs and consider sustainability. Students manage the creation and communication of ideas and information in collaborative digital projects using validated data and agreed protocols.	At Standard, students outline interactions between components and basic functions within digital systems and how they transmit different types of data to form networks. They make a connection between whole numbers being used to represent data within a digital system. They use software to collect, sort, interpret, visually present and manipulate data for a range of purposes. Students use simple visual programming environments to design, modify, follow and represent both diagrammatically, and in written text, algorithms (sequence of steps), involving branching (decisions), iteration (repetition) and consider user input. Students manage, create and communicate information for online collaborative projects, using agreed social, ethical and technical protocols. In Digital Technologies, students identify available resources to design a solution for a given digital task, outlining problem-solving decisions, using algorithms (sequenced steps). Students develop alternative solutions by designing, modifying and following both diagrammatically and in written text, using a range of appropriate technical terms, technologies and techniques. They select and apply safe procedures when using a variety of components and equipment to make solutions. Students develop criteria collaboratively to evaluate and justify design processes and solutions. They work independently, or collaboratively, considering resources and safety to plan, develop and communicate ideas and information for solutions.