Australia Curriculum (7-8) & WA Year 7 Syllabus

Content Descriptions

Australian Curriculum Levels 7-8	Western Australian Year 7 Syllabus
Digital systems	**Digital systems**
Investigate how data is transmitted and secured in wired, wireless and mobile networks, and how the specifications affect performance (ACTDIK023)	Different types of networks, including wired, wireless and mobile networks (ACTDIK023) Hardware components of a network (ACTDIK023)
Representation of data	**Representation of data**
Investigate how digital systems represent text, image and audio data in binary (ACTDIK024)	Digital systems represent text, image and audio data (ACTDIK024)
Collecting, managing and analysing data	**Collecting, managing and analysing data**
Acquire data from a range of sources and evaluate authenticity, accuracy and timeliness (ACTDIP025) Analyse and visualise data using a range of software to create information, and use structured data to model objects or events (ACTDIP026)	Explore how to acquire data from a range of digital sources (ACTDIP025) Create information using relevant software, and create data to model objects and/or events (ACTDIP026)
Investigating and defining	**Investigating and defining**
Define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints (ACTDIP027)	Define and break down a given task, identifying the purpose (WATPPS39) Consider components/resources to develop solutions, identifying constraints (WATPPS40)
Generating and designing	**Designing**
Design the user experience of a digital system, generating, evaluating and communicating alternative designs (ACTDIP028) Design algorithms represented diagrammatically and in English, and trace algorithms to predict output for a given input and to identify errors (ACTDIP029)	Design, develop, review and communicate design ideas, plans and processes within a given context, using a range of techniques, appropriate technical terms and technology (WATPPS41) Follow a plan designed to solve a problem, using a sequence of steps (WATPPS42)
	Digital implementation
	Design the user experience of a digital system (ACTDIP028)
Producing and implementing	**Producing and implementing**
Implement and modify programs with user interfaces involving branching, iteration and functions in a general purpose programming language (ACTDIP030)	Safely make solutions using a range of components, equipment and techniques (WATPPS43)
	Digital implementation
	Create digital solutions that include a user interface where choices can be made (ACTDIP030)
Evaluating	**Evaluating**
Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability ACTDIP031)	Independently apply given contextual criteria to evaluate design processes and solutions (WATPPS44)
Collaborating and managing	**Collaborating and managing**
Plan and manage projects that create and communicate ideas and information collaboratively online, taking safety and social contexts into account (ACTDIP032)	Work independently, and collaboratively when required, to plan, develop and communicate ideas and information when using management processes (WATPPS45)
	Digital implementation
	Create and communicate information collaboratively online, taking into account social contexts (ACTDIP032)

Achievement Standards

Australian Curriculum Levels 7-8	Western Australian Year 7 Syllabus
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.	At Standard, students identify types of networks, including wired, wireless and mobile networks and the hardware components of a network. They identify ways digital systems represent text, image and audio data. Students use a range of digital sources to explore how to acquire data. They create information using relevant of software, and creates data to model objects and/or events. Students create digital solutions considering the user experience of a digital system that allows for choices to be made within a user interface. They work collaboratively online to create and communicate information, with consideration for social contexts. In Digital Technologies, students develop solutions and identify the purpose for a given digital task by considering constraints and components/resources. Students use a range of techniques, appropriate digital technical terms and technologies to design, develop, review and communicate design ideas, plans and processes. They follow sequenced steps to a problem-solving plan. Students apply safe procedures to make solutions, using a range of components, equipment and techniques. They apply given contextual criteria to independently evaluate design processes and solutions. Students work independently, and collaboratively, to plan, develop and communicate ideas and information, when using management processes.