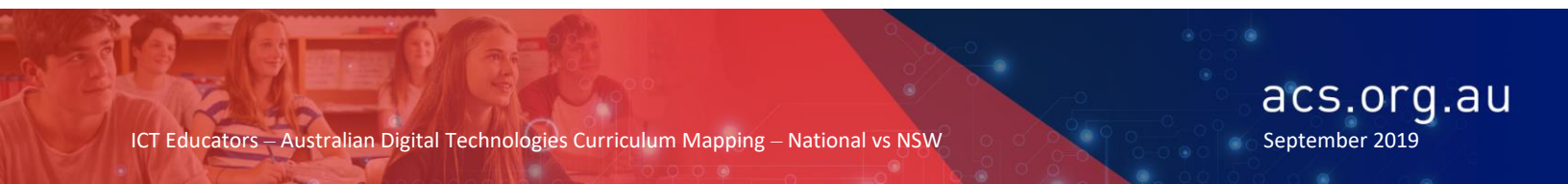


Content Descriptions	Objectives and Outcomes
Australian Curriculum Levels 5-6	New South Wales Stage 3
<b>Knowledge and understanding</b> <b>Digital Systems</b>	<b>Skills</b>
Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014)	Explains how digital systems represent data, connect together to form networks and transmit data (ST3-11DI-T)
<b>Representation of Data</b>	<b>Design and Production Skills Continuum</b> <b>Producing and implementing</b>
Examine how whole numbers are used to represent all data in digital systems (ACTDIK015)	acquire, store, access and validate different types of data, and use a range of software to present, interpret and visualise data (ACTDIP016)
<b>Collecting, managing and analysing data</b>	<b>Design and Production Skills Continuum</b> <b>Identifying and defining</b>
Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)	examine and critique needs, opportunities or modification using a range of criteria to define a project define a need or opportunity according to functional and aesthetic criteria consider availability and sustainability of resources when defining design needs and opportunities examine and determine functional requirements to define a problem identify data required to formulate algorithms to improve a process (ACTDIP017)
<b>Investigating and defining</b>	<b>Design and Production Skills Continuum</b> <b>Research and planning</b>
Define problems in terms of data and functional requirements drawing on previously solved problems (ACTDIP017)	research, identify and define design ideas and processes for an audience consider functional and aesthetic needs in planning a design solution develop, record and communicate design ideas, decisions and processes using appropriate technical terms
<b>Generating and designing</b>	<b>Skills</b>
Design a user interface for a digital system (ACTDIP018) Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)	defines problems, and designs, modifies and follows algorithms to develop solutions (ST3-3DP-T)
<b>Producing and implementing</b>	<b>Design and Production Continuum</b> <b>Research and planning</b>
	design, modify and follow simple algorithms extend sequences of steps to provide a series of possibilities through branching develop solutions through trialling and refining using iterations (ACTDIP019)
	<b>Design and Production Skills</b>



	<b>Producing and implementing</b>
Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)	implement digital solutions as visual programs involving branching, iteration and user input (ACTDIP020) identify, organise and perform strategic roles within a group to solve a problem
<b>Evaluating</b>	<b>Design and Productions Skills Continuum</b> <b>Testing and evaluating</b>
Explain how student solutions and existing information systems are sustainable and meet current and future local community needs (ACTDIP021)	negotiate criteria for success, based on defined needs, sustainability and aesthetics develop appropriate and fair processes to test a designed solution according to criteria explain how students' solutions and existing information systems meet current and future local community needs (ACTDIP021)
<b>Collaborating and managing</b>	<b>Design and Production Skills Continuum</b> <b>Producing and implementing</b>
Plan, create and communicate ideas and information, including collaboratively online, applying agreed ethical, social (ACTDIP022)	work collaboratively to share, appraise and improve ideas to achieve design purposes

### Achievement Standards

### Stage Statements

Australian Curriculum Levels 5-6	New South Wales Key Stage 3
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.	By the end of Stage 3... They pose questions for investigation, predict likely outcomes, and demonstrate accuracy and honesty when collecting, recording and analysing data and information. They construct tables and graphs to organise data and are able to identify patterns, using evidence to compare with predictions, draw conclusions and develop explanations. They communicate their ideas in tables, graphs, diagrams and multimodal texts, using digital technologies where applicable.  Students collect, store and interpret different types of data and explain how digital systems connect to form networks that transmit data. They define problems, and design, modify and follow simple algorithms that involve branching, iteration and user input.

***\*For the purpose of this document, any NSW Syllabus Objectives and Outcomes, Continuum or Stage Statements that do not directly align to the Australian Digital Technologies Curriculum have been removed.***