# Australian Curriculum: 2025 Technologies — Year 5-6

| CURRICULUM | Year 5 | Year 6 |
|---|---|---|
| | Semester 1 | Semester 1 |
| **Unit name** | Digital Unit 2: Data changing our world | Design technology integrated with Science Unit 2: Energy and electricity |
| **Unit description** | In this unit, students explain how information systems meet local and community needs, represent a variety of data types in digital systems and design and create an interactive spreadsheet and share information ethically. Learning opportunities include:<br>• exploring how community organisations collect data and present information to meet community needs<br>• visualising data to create information that is easily understood<br>• creating a data-driven solution that processes user input to provide information about a reading challenge.<br>Students apply a range of skills and processes when creating digital solutions. They will:<br>• explore information systems, including systems that deliver community information, and explain how they meet needs<br>• collect, manage and analyse data using a range of software (such as spreadsheets)<br>• interpret and visualise data to create information<br>• define problems by considering what the need is, what data is required, who the audience is and how they will interact with the solution, and what features need to be included<br>• implement a digital solution that automates the processing of user input and presentation of information to solve a defined problem<br>• apply technical protocols such as devising meaningful file naming conventions and determining safe storage locations to protect data and information. | In this unit, students investigate how electrical energy can control movement, sound or light in a designed product or system. They design a solution to an environment's security need and make a prototype electrical device that is part of the solution.<br>Students apply the following processes and production skills:<br>• investigating by:<br>  ○ the analysis of technologies applied in security systems<br>  ○ the testing of circuits and devices that control movement, sound or light<br>• generating and documenting design ideas for securing environments using technical terms and graphical representation techniques<br>• producing a functional device by safely using materials, components, tools and techniques<br>• evaluating design ideas, processes and solutions against negotiated criteria for success including sustainability<br>• collaborating as well as working individually throughout the process<br>• managing by developing project plans that include resources. |

| ASSESSMENT | | Year 5 | Year 6 |
|---|---|---|---|
| | | Semester 1 | Semester 1 |
| **Range and balance of summative assessment conventions** | Assessment | Data changing our world | Energy and electricity |
| | Technique | Project | Investigation |
| | Type of text | Portfolio | Design/evaluation |
| | Mode | Multimodal | Multimodal |
| **Aspects of the achievement standard** | | | |
| Technologies Achievement Standard | explain how social, ethical, technical and sustainability considerations influence the design of solutions to meet a range of present and future needs | ▓ | ▓ |
| | explain how the features of technologies influence design decisions and how digital systems are connected to form networks | ▓ | |
| | | | |
| | describe a range of needs, opportunities or problems and define them in terms of functional requirements | | ▓ |
| | collect and validate data from a range of sources to assist in making judgements | ▓ | |
| | generate and record design ideas for specified audiences using appropriate technical terms, and graphical and non-graphical representation techniques including algorithms | | ▓ |
| | plan, design, test, modify and create digital solutions that meet intended purposes including user interfaces and a visual program | ▓ | |
| | plan and document processes and resources and safely produce designed solutions for each of the prescribed technologies contexts | | ▓ |
| | negotiate criteria for success, including sustainability considerations, and use these to judge the suitability of their ideas, solutions and processes | | ▓ |
| | use ethical, social and technical protocols when collaborating, and creating and communicating ideas, information and solutions face-to-face and online | ▓ | |

▓ Shaded cells indicate opportunities that summative assessments provide for students to demonstrate evidence against all aspects of the achievement standard