Years 5–6 band Technologies

Australian Curriculum Version 9.0: Achievement standard aligned to content descriptions

ACiQ | v9.0

This resource shows alignment between aspects of the achievement standard and relevant content descriptions for Years 5–6 band. A similar resource is available for Prep/other bands.

The Australian Curriculum (AC) v9.0 code for each content description includes an element indicating the strand it is organised by, e.g. AC9TDI6K01 indicates Knowledge and understanding strand.

Key to content description codes: Technologies	
e.g. **AC9TDI6K01** Australian Curriculum (**AC**) Version 9 (**9**) Technologies (**T**) Design and Technologies (**DE**) Digital Technologies (**DI**) Years 5–6 band (**6**) Strand (**K**, **P**) Content description number (**##**)	Strands: • K — Knowledge and understanding • P — Processes and production skills

Years 5–6 band Australian Curriculum: Technologies achievement standard

By the end of Year 6 students explain how people design products, services and environments to meet the needs of communities, including sustainability. For each of the 3 prescribed technologies contexts students explain how the features of technologies impact on design decisions and they create designed solutions. They process data and show how digital systems represent data, design algorithms involving complex branching and iteration, and implement them as visual programs including variables. They select and justify design ideas and solutions against design criteria. Students share and communicate ideas or content to an audience using technical terms, graphical representation techniques and appropriate digital tools. They develop project plans, including production processes, and select technologies and techniques to safely produce designed or digital solutions. Students securely access and use multiple digital systems and describe their components and how they interact to process and transmit data. They identify their digital footprint and recognise its permanence.

Achievement standard aspect	Relevant content description/s	AC v9.0 code
By the end of Year 6	**Students learn to:**	
Students explain how people design products, services and environments to meet the needs of communities, including sustainability	• explore how familiar products, services and environments are designed by people	AC9TDEFK01
For each of the 3 prescribed technologies contexts students explain how the features of technologies impact on design decisions and they create designed solutions.	• explain how electrical energy can be transformed into movement, sound or light in a product or system	AC9TDE6K02
	• explain how and why food and fibre are produced in managed environments	AC9TDE6K03
	• explain how the characteristics of foods influence selection and preparation for healthy eating	AC9TDE6K04
	• explain how characteristics and properties of materials, systems, components, tools and equipment affect their use when producing designed solutions	AC9TDE6K05
	• investigate needs or opportunities for designing, and the materials, components, tools, equipment and processes needed to create designed solutions	AC9TDE6P01
They process data and show how digital systems represent data, design algorithms involving complex branching and iteration, and implement them as visual programs including variables.	• explain how digital systems represent all data using numbers	AC9TDI6K03
	• explore how data can be represented by off and on states (zeros and ones in binary)	AC9TDI6K04
	• design algorithms involving multiple alternatives (branching) and iteration	AC9TDI6P02
	• implement algorithms as visual programs involving control structures, variables and input	AC9TDI6P05
They select and justify design ideas and solutions against design criteria.	• negotiate design criteria including sustainability to evaluate design ideas, processes and solutions	AC9TDE6P04
	• define problems with given or co developed design criteria and by creating user stories	AC9TDI6P01
	• design a user interface for a digital system	AC9TDI6P03
	• evaluate existing and student solutions against the design criteria and user stories and their broader community impact	AC9TDI6P06
Students share and communicate ideas or content to an audience using technical terms, graphical representation techniques and appropriate digital tools.	• generate, iterate and communicate design ideas, decisions and processes using technical terms and graphical representation techniques, including using digital tools	AC9TDE6P02
	• generate, modify, communicate and evaluate designs	AC9TDI6P04
	• select and use appropriate digital tools effectively to create, locate and communicate content, applying common conventions	AC9TDI6P07
	• select and use appropriate digital tools effectively to share content online, plan tasks and collaborate on projects, demonstrating agreed behaviours	AC9TDI6P08

Achievement standard aspect	Relevant content description/s	AC v9.0 code
They develop project plans, including production processes, and select technologies and techniques to safely produce designed or digital solutions.	• select and use suitable materials, components, tools, equipment and techniques to safely make designed solutions	AC9TDE6P03
	• develop project plans that include consideration of resources to individually and collaboratively make designed solutions	AC9TDE6P05
	• select and use appropriate digital tools effectively to create, locate and communicate content, applying common conventions	AC9TDI6P07
	• select and use appropriate digital tools effectively to share content online, plan tasks and collaborate on projects, demonstrating agreed behaviours	AC9TDI6P08
Students securely access and use multiple digital systems and describe their components and how they interact to process and transmit data.	• investigate the main internal components of common digital systems and their function	AC9TDI6K01
	• examine how digital systems form networks to transmit data	AC9TDI6K02
	• access multiple personal accounts using unique passphrases and explain the risks of password re-use	AC9TDI6P09
They identify their digital footprint and recognise its permanence.	• explain the creation and permanence of their digital footprint and consider privacy when collecting user data.	AC9TDI6P10

More information

If you would like more information, please visit the QCAA website www.qcaa.qld.edu.au. Alternatively, email the K–10 Curriculum and Assessment branch at australiancurriculum@qcaa.qld.edu.au.