Years 3–4 standard elaborations — Australian Curriculum v9.0: Technologies

ACiQ | v9.0

Purpose

The standards elaborations (SEs) support teachers to connect curriculum to evidence in assessment so that students are assessed on what they have had the opportunity to learn. The SEs can be used to:

- make consistent and comparable judgments, on a five-point scale, about the evidence of learning in a folio of student work across a year/band
- develop task-specific standards (or marking guides) for individual assessment tasks
- quality assure planning documents to ensure coverage of the achievement standard across a year/band.

Structure

The SEs have been developed using the Australian Curriculum achievement standard. The achievement standard for Technologies describes what students are expected to know and be able to do at the end of each year. Teachers use the SEs during and at the end of a teaching period to make on-balance judgments about the qualities in student work that demonstrate the depth and breadth of their learning.

In Queensland, the achievement standard represents the C standard — a sound level of knowledge and understanding of the content, and application of skills. The SEs are presented in a matrix where the discernible differences and/or degrees of quality between each performance level are highlighted. Teachers match these discernible differences and/or degrees of quality to characteristics of student work to make judgments across a five-point scale.

In Years 3–4 the Learning area achievement standard may be used to assess within and across the Technologies subjects.

Years 3–4 Australian Curriculum: Technologies achievement standard
By the end of Year 4 students describe how people design products, services and environments to meet the needs of people, including sustainability. They process and represent data for different purposes, follow and describe simple algorithms involving branching and iteration, and implement them as visual programs. For each of the 2 prescribed technologies contexts they describe the features and uses of technologies and create designed solutions. Students select design ideas against design criteria. Students securely access and use digital systems and their peripherals for a range of purposes, including transmitting data. They communicate design ideas using models and drawings including annotations and symbols. Students plan and sequence steps and use technologies and techniques to safely produce designed solutions. They use the core features of common digital tools to plan, create, locate and share content, and to collaborate, following agreed behaviours. Students identify their personal data stored online and its risks.
Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum Version 9.0 Technologies for Foundation–10* https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/design-and-technologies_digital-technologies/year-3?view=quick&detailed-content-descriptions=0&hide-ccp=0&hide-gc=0&side-by-side=1&strands-start-index=0&subjects-start-index=0

Years 3–4 Technologies standard elaborations

		A	B	C	D	E
		The folio of student work contains evidence of the following:				
Knowledge and understanding	**Technologies and society**	thorough description of how people design products, services and environments to meet the needs of people, including sustainability	detailed description of how people design products, services and environments to meet the needs of people, including sustainability	description of how people design products, services and environments to meet the needs of people, including sustainability	identification of how people design products, services and environments to meet the needs of people, including sustainability	identification of products, services and/or environments

		A	B	C	D	E
	Technologies contexts	thorough description of the features and uses of technologies for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	detailed description of the features and uses of technologies for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	description of the features and uses of technologies for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	identification of the features and uses of technologies for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	statement/s about the features and/or uses of technologies for one or more of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations
	Digital systems	secure access and proficient use of digital systems and their peripherals for a range of purposes, including transmitting data	secure access and effective use of digital systems and their peripherals for a range of purposes, including transmitting data	secure access and use of digital systems and their peripherals for a range of purposes, including transmitting data	secure access and guided use of digital systems and their peripherals	secure access and directed use of digital systems
	Data representation	proficient: • processing of data for different purposes • representation of data for different purposes	effective: • processing of data for different purposes • representation of data for different purposes	• processing of data for different purposes • representation of data for different purposes	• guided processing of data for different purposes • partial representation of data for different purposes	• directed processing of data for different purposes • fragmented representation of data for different purposes
	Investigating and defining*					

		A	B	C	D	E
Processes and production skills	Generating and designing	following and purposefully describing simple algorithms involving branching and iteration	following and effectively describing simple algorithms involving branching and iteration	following and describing simple algorithms involving branching and iteration	following and identifying simple algorithms involving branching and/or iteration	directed following of simple algorithms
		communication of considered design ideas using models and drawings including annotations and symbols	communication of effective design ideas using models and drawings including annotations and symbols	communication of design ideas using models and drawings including annotations and symbols	communication of simple design ideas using models and/or drawings that may include annotations and symbols	statement/s about design ideas
	Producing and implementing	proficient implementation of simple algorithms involving branching and iteration as visual programs	effective implementation of simple algorithms involving branching and iteration as visual programs	implementation of simple algorithms involving branching and iteration as visual programs	guided implementation of simple algorithms involving branching and/or iteration as visual programs	directed implementation of simple algorithms
		creation of considered designed solutions for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	creation of effective designed solutions for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	creation of designed solutions for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	creation of partial designed solutions for each of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations	creation of fragmented designed solutions for one or more of the 2 prescribed technologies contexts: • Engineering principles and systems; Materials and technologies specialisations • Food and fibre production; Food specialisations
		purposeful use of technologies and techniques to safely produce designed solutions	effective use of technologies and techniques to safely produce designed solutions	use of technologies and techniques to safely produce designed solutions	guided use of technologies and techniques to safely produce designed solutions	directed use of technologies and techniques to safely produce designed solutions

		A	B	C	D	E
	Evaluating	considered selection of design ideas against design criteria	informed selection of design ideas against design criteria	selection of design ideas against design criteria	variable selection of design ideas against design criteria	fragmented selection of design ideas
	Collaborating and managing	comprehensive planning and sequencing of steps	detailed planning and sequencing of steps	planning and sequencing of steps	partial planning and sequencing of steps	fragmented planning and sequencing of steps
		proficient use of the core features of common digital tools to: • plan, create, locate and share content • collaborate following agreed behaviours	effective use of the core features of common digital tools to: • plan, create, locate and share content • collaborate following agreed behaviours	use of the core features of common digital tools to: • plan, create, locate and share content • collaborate following agreed behaviours	variable use of the core features of common digital tools to partially: • plan, create, locate and share content • collaborate following agreed behaviours	directed use of the core features of common digital tools
	Privacy and security	thorough identification of their personal data stored online and its risks.	informed identification of their personal data stored online and its risks.	identification of their personal data stored online and its risks.	guided identification of their personal data stored online and/or its risks.	directed identification of their personal data stored online.

*sub-strand assessed within Technologies contexts for this level

Key	shading emphasises the qualities that discriminate between the A–E descriptors