

Years 7–8 standard elaborations — Australian Curriculum v9.0: Design and Technologies

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 Design and 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.



Years 7–8 Australian Curriculum: Design and Technologies achievement standard

By the end of Year 8 students explain how people design, innovate and produce products, services and environments for preferred futures. For each of the 4 prescribed technologies contexts they explain how the features of technologies impact on design decisions, and create designed solutions based on analysis of needs or opportunities. Students create and adapt design ideas, processes and solutions, and justify their decisions against developed design criteria that include sustainability. They communicate design ideas and solutions to audiences using technical terms and graphical representation techniques, including using digital tools. They independently and collaboratively document and manage production processes to safely produce designed solutions.

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum Version 9.0 Design and Technologies for Foundation–10*
<https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/design-and-technologies/year-7?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 7–8 Design and Technologies standard elaborations

		A	B	C	D	E
		The folio of student work contains evidence of the following:				
Knowledge and understanding	Technologies and society	<u>discerning</u> explanation of how people design, innovate and produce products, services and environments for preferred futures	<u>detailed</u> explanation of how people design, innovate and produce products, services and environments for preferred futures	explanation of how people design, innovate and produce products, services and environments for preferred futures	<u>description</u> of how people design, innovate and produce products, services and environments for preferred futures	<u>statement/s about</u> how people design, innovate <u>and/or</u> produce designed solutions
	Technologies contexts	<u>discerning</u> explanation of how the features of technologies impact on design decisions for each of the 4 prescribed technologies contexts: <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<u>detailed</u> explanation of how the features of technologies impact on design decisions for each of the 4 prescribed technologies contexts: <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	explanation of how the features of technologies impact on design decisions for each of the 4 prescribed technologies contexts: <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<u>description</u> of how the features of technologies impact on design decisions for each of the 4 prescribed technologies contexts: <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<u>statement/s about</u> the features of technologies for <u>one or more</u> of the 4 prescribed technologies contexts: <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations

		A	B	C	D	E
Processes and production skills	Investigating and defining	<p>proficient analysis of needs or opportunities for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>effective analysis of needs or opportunities for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>analysis of needs or opportunities for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>superficial analysis of needs or opportunities for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>identification of needs or opportunities for one or more of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations
	Generating and designing	<p>proficient creation and adaptation of comprehensive design ideas, processes and solutions based on analysis of needs or opportunities</p>	<p>informed creation and adaptation of effective design ideas, processes and solutions based on analysis of needs or opportunities</p>	<p>creation and adaptation of design ideas, processes and solutions based on analysis of needs or opportunities</p>	<p>partial creation and adaptation of simple design ideas, processes and solutions based on analysis of needs or opportunities</p>	<p>fragmented creation of and/or adaptation of basic design ideas, processes and solutions based on needs or opportunities</p>
		<p>communication of design ideas and solutions to audiences with:</p> <ul style="list-style-type: none"> • considered use of technical terms • comprehensive use of graphical representation techniques, including using digital tools 	<p>communication of design ideas and solutions to audiences with:</p> <ul style="list-style-type: none"> • effective use of technical terms • detailed use of graphical representation techniques, including using digital tools 	<p>communication of design ideas and solutions to audiences using:</p> <ul style="list-style-type: none"> • technical terms • graphical representation techniques, including using digital tools 	<p>communication of design ideas and solutions to audiences with:</p> <ul style="list-style-type: none"> • superficial use of technical terms and/or • simple use of graphical representation techniques, including using digital tools 	<p>communication of design ideas and solutions with:</p> <ul style="list-style-type: none"> • fragmented use of technical terms and/or • basic use of graphical representation techniques, including using digital tools

	A	B	C	D	E
Producing and implementing	<p>proficient and safe production of designed solutions for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>effective and safe production of designed solutions for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>safe production of designed solutions for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>safe production of aspects of designed solutions for each of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations 	<p>safe production of a designed solution, with direction for one or more of the 4 prescribed technologies contexts:</p> <ul style="list-style-type: none"> • Engineering principles and systems • Food and fibre production • Food specialisations • Materials and technologies specialisations
Evaluating	<p>discerning justification of their decisions against developed design criteria that include sustainability</p>	<p>logical justification of their decisions against developed design criteria that include sustainability</p>	<p>justification of their decisions against developed design criteria that include sustainability</p>	<p>partial justification of their decisions against aspects of developed design criteria that include sustainability</p>	<p>statement/s about design decisions</p>
Collaborating and managing	<p>independent and collaborative</p> <ul style="list-style-type: none"> • comprehensive documentation • proficient management of production processes. 	<p>independent and collaborative</p> <ul style="list-style-type: none"> • detailed documentation • effective management of production processes. 	<p>independent and collaborative documentation and management of production processes.</p>	<p>independent and collaborative</p> <ul style="list-style-type: none"> • partial documentation • guided management of production processes. 	<p>independent and/or collaborative</p> <ul style="list-style-type: none"> • fragmented documentation • directed management of production processes.

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



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