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| Years 7–8 standard elaborations — Australian Curriculum v9.0: Digital 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 Digital 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.

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| Years 7–8 Australian Curriculum: Digital Technologies achievement standard |
| By the end of Year 8 students develop and modify creative digital solutions, decompose real-world problems, and evaluate alternative solutions against user stories and design criteria. Students acquire, interpret and model data with spreadsheets and represent data with integers and binary. They design and trace algorithms and implement them in a general-purpose programming language. Students select appropriate hardware for particular tasks, explain how data is transmitted and secured in networks, and identify cyber security threats. They select and use a range of digital tools efficiently and responsibly to create, locate and share content; and to plan, collaborate on and manage projects. Students manage their digital footprint. |
| Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum Version 9.0 Digital Technologies for Foundation–10* <https://v9.australiancurriculum.edu.au/f-10-curriculum/learning-areas/digital-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 Digital Technologies standard elaborations

|  | A | B | C | D | E |
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|  | The folio of student work contains evidence of the following: |
| Knowledge and understanding | Digital systems | proficient selection of appropriate hardware for particular tasks | effective selection of appropriate hardware for particular tasks | selection of appropriate hardware for particular tasks | guided selection of appropriate hardware for particular tasks | directed selection of appropriate hardware for particular tasks |
| considered explanation of how data is transmitted and secured in networks | detailed explanation of how data is transmitted and secured in networks | explanation of how data is transmitted and secured in networks | description of how data is transmitted and/or secured in networks | statement/s about data transmission and/or security |
| **Data representation** | reasoned representation of data with integers and binary | effective representation of data with integers and binary | representation of data with integers and binary | partial representation of data with integers and binary | fragmented representation of data with integers and/or binary |
| **Processes and production skills** | **Acquiring, managing and analysing data** | proficient acquisition, interpretation and modelling of data with spreadsheets | effective acquisition, interpretation and modelling of data with spreadsheets | acquisition, interpretation and modelling of data with spreadsheets | partial acquisition, interpretation and/or modelling of data with spreadsheets | fragmented acquisition, interpretation and/or modelling of data with spreadsheets |
| **Investigating and defining** | reasoned decomposition of real-world problems | logical decomposition of real-world problems | decomposition of real-world problems | partial decomposition of real-world problems | statement/s about real-world problems |
| **Generating and designing** | proficient design and tracing of algorithms | effective design and tracing of algorithms | design and tracing of algorithms | guided design and/or tracing of algorithms | directed design and/or tracing of algorithms |
| considered development and modification of creative digital solutions | effective development and modification of creative digital solutions | development and modification of creative digital solutions | partial development and modification of aspects of creative digital solutions | fragmented development and/or modification of aspects of creative digital solutions |
| **Producing and implementing** | proficient implementation of algorithms in a general-purpose programming language | effective implementation of algorithms in a general-purpose programming language | implementation of algorithms in a general-purpose programming language | partial implementation of algorithms in a general-purpose programming language | directed implementation of algorithms |
| **Evaluating** | discerning evaluation of alternative solutions against user stories and design criteria | plausible evaluation of alternative solutions against user stories and design criteria | evaluation of alternative solutions against user stories and design criteria | description of alternative solutions against user stories and design criteria | identification of features of solutions |
| **Collaborating and managing** | proficient selection and use of a range of digital tools to efficiently and responsibly:* create, locate and share content
* plan, collaborate on and manage projects
 | effective selection and use of a range of digital tools to efficiently and responsibly:* create, locate and share content
* plan, collaborate on and manage projects
 | selection and use of a range of digital tools to efficiently and responsibly:* create, locate and share content
* plan, collaborate on and manage projects
 | variable selection and use of a range of digital tools to partially:* create, locate and/or share content
* plan, collaborate on and/or manage projects
 | directed selection and use of a range of digital tools |
| **Privacy and security** | discerning identification of cyber security threats | informed identification of cyber security threats | identification of cyber security threats | partial identification of cyber security threats | directed identification of cyber security threats |
| justified management of their digital footprint. | informed management of their digital footprint. | management of their digital footprint. | management of aspects of their digital footprint. | directed management of their digital footprint. |

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

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