Curriculum comparison

Foundation

Australian Curriculum	Australian Curriculum Version 8.4
Foundation	**Foundation to Year 2**
AC9TDIFK01 recognise and explore digital systems (hardware and software) for a purpose	Recognise and explore digital systems (hardware and software components for a purpose (ACTDIK001)
AC9TDIFK02 represent data as objects, pictures and symbols	Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)
AC9TDIFP01 identify some data that is personal and owned by them	Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003)
	Following, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)
	Explore how people safely use common information systems to meet information, communication and recreation needs (ACTDIP005)
	Create and organise ideas and information using information systems independently and with others, and share them with known people in safe online environments (ACTDIP006)

Curriculum comparison

Foundation

Australian Curriculum	Australian Curriculum Version 8.4
Achievement Standards	**Achievement Standards**
Learning area achievement standard By the end of Foundation students identify familiar products, services and environments and develop familiarity with digital systems, using them for a purpose. They create, communicate and choose design ideas. Students follow steps and use materials and equipment to safely make a designed solution for a school-selected context. They show how to represent data using objects, pictures and symbols and identify examples of data that is owned by them. **Subject achievement standard** By the end of Foundation students show familiarity with digital systems and use them for a purpose. They represent data using objects, pictures and symbols and identify examples of data that is owned by them.	**Learning area achievement standard** By the end of Year 2, students describe the purpose of familiar products, services and environments and how they meet a range of present needs. They list the features of technologies that influence design decisions and identify how digital systems are used. Students identify needs, opportunities or problems and describe them. They collect, sort and display familiar data from a range of sources and recognise patterns in data. Students record design ideas using techniques including labelled drawings, lists and sequenced instructions. They design solutions to simple problems using a sequence of steps and decisions. With guidance, students produce designed solutions for each of the prescribed technologies contexts. Students evaluate their ideas, information and solutions on the basis of personal preferences and provided criteria including care for the environment. They safely create solutions and communicate ideas and information face-to-face and online. **Achievement standard** By the end of Year 2, students identify how common digital systems (hardware and software) are used to meet specific purposes. They use digital systems to represent simple patterns in data in different ways. Students design solutions to simple problems using a sequence of steps and decisions. They collect familiar data and display them to convey meaning. They create and organise ideas and information using information systems, and share information in safe online environments.

Curriculum comparison

Years 1 and 2

Australian Curriculum Version 9	Australian Curriculum Version 8.4
Years 1 and 2	**Foundation to Year 2**
AC9TDI2K01 identify and explore digital systems and their components for a purpose	Recognise and explore digital systems (hardware and software components for a purpose (ACTDIK001)
AC9TDI2K02 represent data as pictures, symbols, numbers and words	Recognise and explore patterns in data and represent data as pictures, symbols and diagrams (ACTDIK002)
AC9TDI2P01 investigate simple problems for known users that can be solved with digital systems	Collect, explore and sort data, and use digital systems to present the data creatively (ACTDIP003)
AC9TDI2P02 follow and describe algorithms involving a sequence of steps, branching (decisions) and iteration (repetition)	Following, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)
AC9TDI2P03 discuss how existing digital systems satisfy identified needs for known users	Explore how people safely use common information systems to meet information, communication and recreation needs (ACTDIP005)
AC9TDI2P04 use the basic features of common digital tools to create, locate and communicate content	Create and organise ideas and information using information systems independently and with others, and share them with known people in safe online environments (ACTDIP006)
AC9TDI2P05 use the basic features of common digital tools to share content and collaborate demonstrating agreed behaviours, guided by trusted adults	

Curriculum comparison

Years 1 and 2

Australian Curriculum	Australian Curriculum Version 8.4
Achievement Standards	**Achievement Standards**
Learning area achievement standard By the end of Year 2 students describe the purpose of familiar products, services and environments, including digital systems. They represent and process data in different ways and follow and describe basic algorithms involving a sequence of steps and branching to show how simple digital solutions meet a need for known users. For each of the 2 prescribed technologies contexts they identify the features and uses of technologies and create designed solutions. Students select design ideas based on their personal preferences. They access and use the basic features of common digital tools to create, locate and share content, and collaborate and communicate design ideas using models and drawings. Students safely produce designed or digital solutions and recognise that digital tools may store their personal data online. **Subject achievement standard** By the end of Year 2 students show how simple digital solutions meet a need for known users. Students represent and process data in different ways. They follow and describe basic algorithms involving a sequence of steps and branching. With assistance, students access and use digital systems for a purpose. They use the basic features of common digital tools to create, locate and share content, and to collaborate, following agreed behaviours. Students recognise that digital tools may store their personal data online.	**Learning area achievement standard** By the end of Year 2, students describe the purpose of familiar products, services and environments and how they meet a range of present needs. They list the features of technologies that influence design decisions and identify how digital systems are used. Students identify needs, opportunities or problems and describe them. They collect, sort and display familiar data from a range of sources and recognise patterns in data. Students record design ideas using techniques including labelled drawings, lists and sequenced instructions. They design solutions to simple problems using a sequence of steps and decisions. With guidance, students produce designed solutions for each of the prescribed technologies contexts. Students evaluate their ideas, information and solutions on the basis of personal preferences and provided criteria including care for the environment. They safely create solutions and communicate ideas and information face-to-face and online. **Achievement standard** By the end of Year 2, students identify how common digital systems (hardware and software) are used to meet specific purposes. They use digital systems to represent simple patterns in data in different ways. Students design solutions to simple problems using a sequence of steps and decisions. They collect familiar data and display them to convey meaning. They create and organise ideas and information using information systems, and share information in safe online environments.

Curriculum comparison

Years 3 and 4

Australian Curriculum Years 3 and 4	Australian Curriculum Version 8.4 Years 3 and 4
AC9TDI4K01 explore and describe a range of digital systems and their peripherals for a variety of purposes	Identify and explore a range of digital systems with peripheral devices for different purposes, and transmit different types of data (ACTDIK007)
AC9TDI4K02 explore transmitting different types of data between digital systems	Recognise different types of data and explore how the same data can be represented in different ways (ACTDIK008)
AC9TDI4K03 recognise different types of data and explore how the same data can be represented differently depending on the purpose	Collect, access and present different types of data using simple software to create information and solve problems (ACTDIP009)
AC9TDI4P01 define problems with given design criteria and by co-creating user stories	Define simple problems, and describe and follow a sequence of steps and decisions (algorithms) needed to solve them (ACTDIP010)
AC9TDI4P02 follow and describe algorithms involving sequencing, comparison operators (branching) and iteration	Implement simple digital solutions as visual programs with algorithms involving branching (decisions) and user input (ACTDIP011)
AC9TDI4P03 generate, communicate and compare designs	Explain how student solutions and existing information systems meet common personal, school or community needs (ACTDIP012)
AC9TDI4P04 implement simple algorithms as visual programs involving control structures and input	Plan, create and communicate ideas and information independently and with others, applying agreed ethical and social protocols (ACTDIP013)
AC9TDI4P05 discuss how existing and student solutions satisfy the design criteria and user stories	
AC9TDI4P06 use the core features of common digital tools to create, locate and communicate content, following agreed conventions	
AC9TDI4P07 use the core features of common digital tools to share content, plan tasks, and collaborate, following agreed behaviours, supported by trusted adults	
AC9TDI4P08 access their school account using a memorised password and explain why it should be easy to remember, but hard for others to guess	
AC9TDI4P09 identify what personal data is stored and shared in their online accounts and discuss any associated risks	

Curriculum comparison

Years 3 and 4

Australian Curriculum	Australian Curriculum Version 8.4
Achievement Standards	**Achievement Standards**
Learning area 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. **Subject achievement standard** By the end of Year 4 students create simple digital solutions and use provided design criteria to check if solutions meet user needs. Students process and represent data for different purposes. They follow and describe simple algorithms involving branching and iteration and implement them as visual programs. Students securely access and use digital systems and their peripherals for a range of purposes, including transmitting data. 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 recognise the risks.	**Learning area achievement standard** By the end of Year 4, students describe how social, technical and sustainability factors influence the design of solutions to meet present and future needs. They describe features of technologies that influence design decisions and how a range of digital systems can be used. Students outline and define needs, opportunities or problems. They collect, manipulate and interpret data from a range of sources to support decisions. Students generate and record design ideas for an audience using technical terms and graphical and non-graphical representation techniques including algorithms. They plan a sequence of steps (algorithms) to create solutions, including visual programs. Students plan and safely produce designed solutions for each of the prescribed technologies contexts. They use identified criteria for success, including sustainability considerations, to judge the suitability of their ideas, solutions and processes. Students use agreed protocols when collaborating, and creating and communicating ideas, information and solutions face-to-face and online. **Achievement standard** By the end of Year 4, students describe how a range of digital systems (hardware and software) and their peripheral devices can be used for different purposes. They explain how the same data sets can be represented in different ways. Students define simple problems, design and implement digital solutions using algorithms that involve decision-making and user input. They explain how the solutions meet their purposes. They collect and manipulate different data when creating information and digital solutions. They safely use and manage information systems for identified needs using agreed protocols and describe how information systems are used.

Curriculum comparison

Years 5 and 6

Australian Curriculum	Australian Curriculum Version 8.4
Years 5 and 6	**Years 5 and 6**
AC9TDI6K01 investigate the main internal components of common digital systems and their function	Examine the main components of common digital systems and how they may connect together to form networks to transmit data (ACTDIK014)
AC9TDI6K02 examine how digital systems form networks to transmit data	Examine how whole numbers are used to represent all data in digital systems (ACTDIK015)
AC9TDI6K03 explain how digital systems represent all data using numbers	Acquire, store and validate different types of data, and use a range of software to interpret and visualise data to create information (ACTDIP016)
AC9TDI6K04 explore how data can be represented by off and on states (zeros and ones in binary)	Define problems in terms of data and functional requirements drawing on previously solved problems (ACTDIP017)
AC9TDI6P01 define problems with given or co-developed design criteria and by creating user stories	Design a user interface for a digital system (ACTDIP018)
AC9TDI6P02 design algorithms involving multiple alternatives (branching) and iteration	Design, modify and follow simple algorithms involving sequences of steps, branching, and iteration (repetition) (ACTDIP019)
AC9TDI6P03 design a user interface for a digital system	Implement digital solutions as simple visual programs involving branching, iteration (repetition), and user input (ACTDIP020)
AC9TDI6P04 generate, modify, communicate and evaluate designs	Explain how student solutions and existing information systems are sustainable and meet current and future local community needs (ACTDIP021)
AC9TDI6P05 implement algorithms as visual programs involving control structures, variables and input	Plan, create and communicate ideas and information, including collaboratively online, applying agreed ethical, social (ACTDIP022)
AC9TDI6P06 evaluate existing and student solutions against the design criteria and user stories and their broader community impact	
AC9TDI6P07 select and use appropriate digital tools effectively to create, locate and communicate content, applying common conventions	
AC9TDI6P08 select and use appropriate digital tools effectively to share content online, plan tasks and collaborate on projects, demonstrating agreed behaviours	
AC9TDI6P09 access multiple personal accounts using unique passphrases and explain the risks of password re-use	
AC9TDI6P10 explain the creation and permanence of their digital footprint and consider privacy then collecting user data	

Curriculum comparison

Years 5 and 6

Australian Curriculum	Australian Curriculum Version 8.4
Achievement Standards	**Achievement Standards**
Learning area 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. **Subject achievement standard** By the end of Year 6 students develop and modify digital solutions, and define problems and evaluate solutions using user stories and design criteria. They process data and show how digital systems represent data. Students design algorithms involving complex branching and iteration and implement them as visual programs including variables. They securely access and use multiple digital systems and describe their components and how they interact to process and transmit data. Students select and use appropriate digital tools effectively to plan, create, locate and share content, and to collaborate, applying agreed conventions and behaviours. They identify their digital footprint and recognise its permanence.	**Learning area achievement standard** By the end of Year 6, students explain how social, ethical, technical and sustainability considerations influence the design of solutions to meet a range of present and future needs. They explain how the features of technologies influence design decisions and how digital systems are connected to form networks. Students describe a range of needs, opportunities or problems and define them in terms of functional requirements. They collect and validate data from a range of sources to assist in making judgements. Students generate and record design ideas for specified audiences using appropriate technical terms, and graphical and non-graphical representation techniques including algorithms. They plan, design, test, modify and create digital solutions that meet intended purposes including user interfaces and a visual program. Students plan and document processes and resources and safely produce designed solutions for each of the prescribed technologies contexts. They negotiate criteria for success, including sustainability considerations, and use these to judge the suitability of their ideas, solutions and processes. Students use ethical, social and technical protocols when collaborating, and creating and communicating ideas, information and solutions face-to-face and online. **Achievement standard** By the end of Year 6, students explain the fundamentals of digital system components (hardware, software and networks) and how digital systems are connected to form networks. They explain how digital systems use whole numbers as a basis for representing a variety of data types. Students define problems in terms of data and functional requirements and design solutions by developing algorithms to address the problems. They incorporate decision-making, repetition and user interface design into their designs and implement their digital solutions, including a visual program. They explain how information systems and their solutions meet needs and consider sustainability. Students manage the creation and communication of ideas and information in collaborative digital projects using validated data and agreed protocols.