Government of **Western Australia**
School Curriculum and Standards Authority

Western Australian Curriculum

Technologies | Digital Technologies

Achievement standards | Pre-primary–Year 10

(Provisional)

For implementation in 2026

Acknowledgement of Country

Kaya. The School Curriculum and Standards Authority (the Authority) acknowledges that our offices are on Whadjuk Noongar boodjar and that we deliver our services on the country of many traditional custodians and language groups throughout Western Australia. The Authority acknowledges the traditional custodians throughout Western Australia and their continuing connection to land, waters and community. We offer our respect to Elders past and present.

Disclaimer

Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the course. Teachers must exercise their professional judgement as to the appropriateness of any they may wish to use.

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Overview

An Achievement standard describes the quality of learning (e.g. the depth of conceptual understanding and the sophistication of skills) that would indicate the student is well placed to commence the learning required at the next level of achievement.

The Achievement standard describes an expected level that the majority of students are achieving or working towards by the end of that year of schooling. Some students will have progressed beyond the Achievement standard; others will need additional support.

The Achievement standards for the Technologies: Digital Technologies curriculum are provisional and will be validated once teachers have had the time to become familiar with the teaching and assessment of the revised curriculum.

Pre-primary

By the end of the year:

Children identify and label digital systems (hardware and software), where they are used and their common features. They identify that data can be represented as objects or images. Children follow safety strategies in online encounters. They identify that some data is personal and owned by them, and the importance of keeping their personal data safe. Children explore steps to take when encountering inappropriate content, pop-ups or uninitiated contact online. Children follow an algorithm (sequence of steps) to achieve an outcome, and they begin to understand computational thinking through sequence.

In Digital Technologies, children explore needs for design, and develop, create and evaluate designed solutions.

Year 1

By the end of the year:

Children identify specific features of digital systems (hardware and software) and how they are used in everyday life. They represent data using pictures, symbols, numbers and words. Children follow strategies to stay safe online, while identifying that data is personal and can be shared with trusted people. They access their school account, with assistance, using a recorded username and password.

In Digital Technologies, children explore ideas and design opportunities when designing products or solutions. They follow a visual representation of an algorithm. Children design solutions through drawing, modelling and/or a sequence of steps to plan and produce solutions for a personal need. They use personal preferences to evaluate the solution for a personal need.

Year 2

By the end of the year:

Children use digital systems for a specific purpose, making connections between software and hardware. They identify patterns within data and recognise that data can be represented by diagrams, symbols, numbers and words. Children independently access their school account with a recorded username and password and log out afterwards. Children recognise that websites and apps store personal data, and identify behaviours to stay safe online.

In Digital Technologies, children explore design opportunities to meet needs. They develop, follow and describe algorithms and decisions made by the user. They use given equipment to safely produce solutions. Children evaluate the success of design ideas and solutions based on the needs of known users.

Year 3

By the end of the year:

Students explore and recognise peripheral devices and their purpose, identify that there are different types of data and that data can be represented, stored and shared online in different ways. They access their school account, using a unique, private, memorised password, and log out afterwards.

In Digital Technologies, students create, design and implement algorithms in a visual programming environment to include decisions made by the user to solve a given digital task. They develop and communicate ideas using labelled drawings and technical terms. Students select and safely use appropriate components with given equipment to create a solution. They design and communicate solutions, and follow a plan to produce designed solutions. Students use criteria to evaluate developed design processes and solutions.

Year 4

By the end of the year:

Students identify different purposes for digital systems, hardware components and peripheral devices. They identify how data can be represented in a range of ways. In a visual programming environment, students design and implement algorithms that involve decisions and repetition, and create and communicate ideas and information. Students identify that personal data that is shared and stored online can pose risks. They access their school account, using a memorised password, and describe the risks of not logging out.

In Digital Technologies, students develop and communicate design ideas and decisions, using labelled drawings and technical terms. Students use agreed protocols and management roles to plan, make decisions and communicate ideas to develop solutions. They use given criteria to evaluate design features, selected resources, their decision-making process and the designed solution for a given digital task.

Year 5

By the end of the year:

Students identify internal components of digital systems and their functions. They identify ways data is represented using code, and provide relevant examples. Students create designed solutions, follow and represent diagrammatic algorithms involving user input, variables and control structures, such as sequencing, decisions and repetition. They implement algorithms using visual programming languages. Students identify and make judgements based on the use of personal data and how it contributes to a permanent digital footprint. They access multiple personal accounts using unique passphrases or biometrics and describe the risks of password reuse and not logging out.

In Digital Technologies, students define a problem, identify available resources and develop designed solutions. They develop and communicate alternative solutions, and use annotated diagrams, storyboards and appropriate technical terms for design ideas.

Year 6

By the end of the year:

Students outline interactions between wired and wireless networks to transmit data for a variety of purposes. They explain how data can be represented by off and on states (zeros and ones in binary) and make simple conversions. Students use visual programming environments to design, modify and implement algorithms that involve user input, variables and control structures such as sequence, decisions and various types of iteration. They identify their digital footprint and privacy considerations when collecting user data. Students access multiple personal accounts using unique passphrases or biometrics. They describe the risks of password reuse and practices that reduce risk to their personal accounts.

In Digital Technologies, students identify available resources to design a solution for a given digital task, using critical thinking strategies to make decisions. They develop, design and compare alternative solutions, achieved through an iterative process including graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps. They use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate ideas and solutions.

Year 7

By the end of the year:

Students identify the ways different types of networks, including wired, wireless and mobile networks, and their hardware components, transmit data. They identify how digital systems represent data using binary. Students acquire, store and visualise data from a range of sources using spreadsheets. They design algorithms involving control structures (iteration and selection). Students represent these algorithms using flow charts, pseudocode and correct terminology, and use them to implement, modify and debug programs. Students identify issues relating to a user's digital footprint and the permanence of data, while outlining ways of protecting accounts with multifactor authentication.

In Digital Technologies, students use project management processes and skills to plan, develop and communicate solutions, while considering time and available resources, and identify the purpose for a given digital task. Students use a range of techniques, technologies and appropriate terminology to design, develop, review and communicate ideas, plans and processes. They implement agreed protocols when using a range of technologies, components and/or equipment to produce designed solutions.

Year 8

By the end of the year:

Students describe methods of data transmission and security in wired, wireless and mobile networks, identify specifications of hardware components and outline potential impact on particular tasks. They identify how digital systems represent image and audio data using binary. Students analyse and validate data, using spreadsheets, to draw conclusions and make predictions based on identified trends. They design algorithms involving nested control structures, represented by flow charts and pseudocode, in plain English. Students implement, modify and debug programs involving control structures in a general-purpose programming language. They trace algorithms to predict output for a given input and identify errors. Students identify ethical issues regarding the collection and ownership of data and evaluate the authenticity, accuracy and timeliness of acquired data. They describe cybersecurity threats, including phishing.

In Digital Technologies, students investigate a given need or opportunity for a specific purpose and develop a design brief. Students consider and select components and resources to develop solutions, identifying constraints. They use appropriate technical terms and technologies to design, develop, evaluate and communicate alternative digital solutions. Students use project management skills to plan, develop and communicate, while considering time, resources and costs to achieve solutions. They develop contextual criteria to evaluate design processes and solutions.

Year 9

By the end of the year:

Students describe the role of hardware and software to secure the movement of data in digital systems with a focus on cybersecurity threat models. They identify different methods used for manipulation, storage and transmission of data. Students acquire, store and validate data from a range of sources using software, including spreadsheets and databases. They define and decompose real-world problems by interviewing stakeholders to develop user experiences. Students design and prototype the user experience of a digital system. They design algorithms that use functions and represent them as flow charts and/or pseudocode. Students implement and modify programs in a general-purpose programming language and trace algorithms to predict output against a range of test cases. They describe the Australian Privacy Principles regarding the collection and ownership of data.

In Digital Technologies, students identify and define the needs of a stakeholder to develop a design brief for a solution. They investigate a range of components and resources to develop ideas and identify and consider constraints. Students apply design thinking, creativity and enterprise skills to produce purposeful and holistic solutions. Students select, test and implement appropriate technologies and processes to produce effective solutions and evaluate design processes against student-developed criteria. Students manage projects using digital technologies through an agile and collaborative approach, and consider time, risk, economic and sustainable factors.

Year 10

By the end of the year:

Students describe how hardware and software manage, control and secure access to data in networked digital systems with a focus on software supply chain vulnerabilities. They represent documents online as content (text), structure (mark-up) and presentation (styling) and explain the purpose of these distinctions. Students analyse and visualise data interactively using a range of software, including spreadsheets and relational databases, to draw conclusions and make predictions based on identified trends and outliers. They model and query entities and relationships using structured data. Students apply the Australian Privacy Principles to critique systems and manage the digital footprint of individuals.

Students define and decompose real-world problems and use data gathering techniques to create user experiences and user interfaces. They design and prototype the user experience of a digital system and algorithms involving functions, modules and logical operators, and represent them as flow charts and/or pseudocode. Students validate algorithms and programs by comparing their output against a range of test cases. They implement, modify and debug modular programs, applying algorithms and data structures, in a programming language.

In Digital Technologies, students identify the needs of the client or stakeholder to determine the basis for a solution. They develop and critique design briefs for a designed solution. Students investigate components and resources to develop increasingly sophisticated solutions, identifying and considering associated constraints. They apply design thinking, creativity, enterprise skills and innovation to develop, modify and communicate detailed design ideas. Students design possible solutions and analyse designs against criteria, including functionality, accessibility, usability and aesthetics, using appropriate technical terms and technologies. They select, justify, implement and test appropriate technologies and processes to produce designed solutions. They manage projects, using digital technologies with an agile and collaborative approach, while considering time, production processes, social, ethical, economic and sustainable factors, and legal responsibilities.