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

Technologies:
Digital Technologies

Teaching, learning and assessment exemplar

Year 6

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.

Background

This teaching, learning and assessment exemplar (the exemplar) has been developed by the School Curriculum and Standards Authority (the Authority) as part of the *School Education Act Employees (Teachers and Administrators) General Agreement 2017* (Clause 61.1–61.3).

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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Contents

The Western Australian Curriculum

The *Western Australian Curriculum and Assessment Outline* (the *Outline* – https://k10outline.scsa.wa.edu.au/) sets out the mandated curriculum, guiding principles for teaching, learning and assessment, and support for teachers in their assessment and reporting of student achievement. The *Outline* recognises that all students in Australian schools, or international schools implementing the Western Australian Curriculum, are entitled to be given access to the eight learning areas described in the *Alice Springs* (*Mparntwe*) *Education Declaration*, December 2019.

The Technologies curriculum

The mandated curriculum is presented in the year level syllabus documents.

The Technologies curriculum delivers a sequential and age-appropriate progression of learning with the following key elements:

- a year level description that provides an overview of the context for teaching and learning in the year
- a series of content descriptions, populated through strands and sub-strands, that sets out the knowledge, understanding and skills that teachers are expected to teach and students are expected to learn
- an achievement standard that describes an expected level that the majority of students are achieving by the end of a given year of schooling. 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 in the next year.

This exemplar

This Technologies exemplar articulates the content in the *Outline* and approaches to teaching, learning and assessment reflective of the Principles of Teaching, Learning and Assessment. This exemplar presents planning for eight weeks of teaching and learning for each of the four terms, with a time allocation of one hour per week.

Catering for diversity

This exemplar provides a suggested approach for the delivery of the curriculum and reflects the rationale, aims and content structure of the learning area. When planning the learning experiences, consideration has been given to ensuring that they are inclusive and can be used in, or adapted for, individual circumstances. It is the classroom teacher who is best placed to consider and respond to (accommodate) the diversity of their students. Reflecting on the learning experiences offered in this exemplar will enable teachers to make appropriate adjustments (where applicable) to better cater for students' gender, personal interests, achievement levels, socio-economic, cultural and language backgrounds, experiences and local area contexts.

Using this exemplar

This teaching, learning and assessment exemplar provides suggestions to support the delivery of the mandated curriculum content. This exemplar provides:

- a teaching and learning sequence
- the mandated curriculum content to be taught at each point of the teaching and learning sequence, suggested resources, sample assessment tasks and marking keys
- the number of lessons to deliver the teaching and learning experiences
- learning intentions and support notes that may provide focus questions and additional information and/or examples to assist with the interpretation of curriculum content
- support notes to assist teachers to unpack the content and support teaching and learning experiences
- teaching and learning experiences that outline the structure of the lesson. These explicitly state each activity that the lesson will progress through and the key focus area for that activity.

Links to electronic resources

This sequence of lessons may utilise electronic web-based resources, such as videos and image galleries. Teachers should be present while an electronic resource is in use and close links immediately after a resource, such as a video, has played to prevent default ‘auto play’ of additional videos. Where resources are referred for home study, they should be uploaded through Connect, or an equivalent system, that filters advertising content.

Best practice

Teaching and learning

The teaching and learning opportunities offered in this exemplar are not exhaustive. Thus, teachers are encouraged to make professional decisions about which learning experiences, and the sequence in which they are delivered, are best suited to their classroom context, taking into account the availability of resources and student ability.

This sample may prove a useful starting point for amplifying creativity in the classroom, while presenting the embedded expectations of the Western Australian Curriculum: Technologies.

Teachers may find opportunities to incorporate the General Capabilities and the Cross-curriculum Priorities into the teaching and learning program.

Ways of teaching – teachers can locate additional information on the Ways of teaching from the School Curriculum and Standards Authority (the Authority) website https://k10outline.scsa.wa.edu.au/home/wa-curriculum/learning-areas/technologies/digital-technologies/p-10-digital-technologies-teaching/digital-technologies-ways-of-teaching.

Assessing

Assessment, both formative and summative, is an integral part of teaching and learning. Assessment should arise naturally out of the learning experiences provided to students. In addition, assessment should provide regular opportunities for teachers to reflect on student achievement and progress. As part of the support it provides for teachers, this exemplar includes suggested assessment points. It is the teacher's role to consider the contexts of their classroom and students, the range of assessments required, and the sampling of content descriptions selected to allow their students the opportunity to demonstrate achievement in relation to the year level achievement standard. Teachers are best placed to make decisions about whether the suggested assessment/s are used as formative or summative assessment and/or for moderation purposes.

Ways of assessing – a range of assessment strategies that can enable teachers to understand where students are in their learning is available on the Authority website https://k10outline.scsa.wa.edu.au/home/wa-curriculum/learning-areas/technologies/digital-technologies/p-10-digital-technologies-assessing/digital-technologies-ways-of-assessing.

Reflecting

Reflective practice involves a cyclic process during which teachers continually review the effects of their teaching and make appropriate adjustments to their planning. The cycle involves planning, teaching, observing, reflecting and replanning.

This exemplar supports reflective practice and provides flexibility for teachers in their planning. The exemplar shows how content can be combined and revisited throughout the year. Teachers will choose to expand or contract the amount of time spent on developing the required understandings and skills according to their reflective processes and professional judgements about their students' evolving learning needs.

Year level description

In the middle to late childhood phase of schooling, students develop a sense of self, their world expands, and they begin to see themselves as members of larger communities. Learning experiences emphasise and lead to an appreciation of both the commonality and diversity of human experience and concerns.

Digital Technologies builds on concepts previously acquired where students continue to develop understanding and skills in computational and design thinking.

In Year 6, students consolidate their understanding of the role individual components of digital systems play in the processing and representation of data. They are introduced to wired and wireless networks of digital systems that send data in binary form. Students are introduced to the concept of digital footprints and consider privacy considerations when collecting user data.

Students further develop abstractions by identifying common elements across similar problems and systems and make connections between models and the real-world systems they represent. They are given increased responsibility for managing and organising activities, individually and in groups. Students apply systems thinking when investigating the functions and purpose of each component in a digital system and in their interactions with others. When creating digital solutions, students further refine their skills to identify and use appropriate data and requirements. They incorporate control structures when implementing their solutions through visual programming environments.

Achievement standard

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.

Term 1

Weeks 1–8: Digital Technologies

Term 1 Week 1: Your digital footprint

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Privacy and security Digital footprint and privacy considerations when collecting user data	**Learning intention** Understand what a digital footprint is and how it can affect people. **Focus questions** • What are some things to think about to stay safe while using technology? **Support notes** This activity asks students to describe their use of digital devices and online activity in terms of the digital footprint that they are creating. Students are also required to consider what content other people or organisations may be posting about them online. To help students engage with and develop their understanding of staying safe online, teachers can use school recommended resources, or access resources provided on the following websites: • Digital Technologies Hub https://www.digitaltechnologieshub.edu.au/ • eSafety Commissioner https://www.esafety.gov.au/ **Suggested assessment points** Observe student contributions to class discussions and collect online profile worksheets to measure understanding of the concept.	**Introduction** Ask students to create a mind map that describes their use of digital technology and online behaviour. The mind map should show: • the digital devices they own or use • the sites they visit online and what they're using the sites for (e.g. gaming, texting friends etc.) • the amount of time that they spend online. Students then find a partner and compare their mind maps. What's the same? What's different? Discuss what students are noticing about their maps and display mind maps on a class noticeboard to form a gallery. Ask: What do the mind maps tell you about the use of digital technology and online behaviour of people your age? **Learning activity** Introduce the term 'Digital Footprint'. Explain: A digital footprint is like your real footprint. Almost everything you do online leaves a trail and this trail is called a digital footprint. Your digital footprint includes: • the information on your digital devices • the information on other people's digital devices • the information on servers around the world.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Give students a fictional online profile (Appendix A.1) based on a made-up person. They investigate the 'clues' (posts, photos, likes, locations) to build an idea of the person's digital footprint. Students then respond on the worksheet, or discuss with their partner: 1. What kind of personal information can you find out about Maya from her profile and posts? 2. What could someone guess about where Maya lives or goes to school? 3. Which parts of Maya's online activity do you think are safe? Which might be risky? 4. How could Maya improve her online safety and protect her digital footprint? 5. What advice would you give to Maya (or someone like her) to stay safe online? Discuss responses as a class. **Conclusion** Ask students to have another look at their mind maps and discuss with their partner: • What kind of information could people find out about me online? • What can I do to reduce the amount of personal information I'm sharing online?

Term 1 Week 2: Passphrases and online security

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Privacy and security Access multiple personal accounts using unique passphrases or biometrics. Risks of password reuse and practices to reduce risk to their personal accounts	**Learning intention** Understand that strong passphrases help protect personal information online. **Focus questions** • What is a strong passphrase? • Why should you protect your passphrase? • Should you share your passphrase with a parent? • Why should you use a different passphrase for each account? **Support notes** This lesson focuses on how strong passphrases (instead of passwords) help protect personal information online. A passphrase is longer and more secure than a password. It is typically a short sentence or combination of unrelated words that are easy for the user to remember but hard for others to guess. Students will learn how to create strong, memorable, and secure passphrases. Examples: Weak password: soccer123 Strong passphrase: BlueLizard!Runs5K Students can engage with online resources from the eSafety Commissioner https://www.esafety.gov.au/. Teachers may choose	**Introduction** Review what students learnt last lesson about digital footprints and online safety. Discuss the risks of weak passwords and how they can be easily guessed or stolen. Show students the following passphrases: • puppy123 • C@keLover99! • SoccerStar2008 • SunsetRobotPlaysGuitar! • Iloveschool. Discuss: Which is the strongest? Which ones might be easy to guess? Why? Discuss why using a random mix of words, numbers, and symbols creates stronger passphrases. **Learning activity** Watch a video on strong passphrases**:** Get Cyber Safe Create a Strong Password In small groups, students create a list of tips for making secure passphrases, including: • using a random string of unrelated words (e.g. • BluePencil$RunsFast) • making it longer than 12 characters • adding numbers and symbols • avoiding personal information (names, birthdays, pet names)

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	to integrate school-based cyber safety resources or other online tools. **Suggested assessment points** Collect worksheets as formative assessment and pair students to peer review passphrases for strength. Observe student responses to exit ticket questions: • Why is it important to use strong passphrases instead of passwords? • How can you keep passphrases secure? Additional extension ideas: • Use the cybersecurity game Google's Interland *Tower of Treasure* to reinforce password security concepts. • Passphrase vs. password experiment – Use a simple password strength tester to show how easy/hard it is to crack weak passwords vs. strong passphrases. A good example of this is available here: https://www.nsw.gov.au/id-support-nsw/be-prepared/passwords.	• using different passphrases for different accounts. Students create weak and strong passphrases using their favourite fictional character. For example: • weak: Spiderman2026 (easy to guess) • strong: WebsFly7@Skyscrapers! (random and secure) Students share their passphrases (without revealing real ones they might use). **Conclusion** Discuss: Why is it so important to use strong passphrases instead of passwords? Review key takeaways: Passphrases are more secure, easier to remember, and harder to crack. Students complete an exit ticket, answering: • Why is it important to use strong passphrases instead of passwords? • How can you keep passphrases secure?

Term 1 Week 3: Creating a poster

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Privacy and security Digital footprint and privacy considerations when collecting user data Access multiple personal accounts using unique passphrases or biometrics. Risks of password reuse and practices to reduce risk to their personal accounts **Design thinking skills** **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution	**Learning intention** Communicate safe online behaviours and responsible data sharing in a way that others can understand and use. **Focus questions** • What is the most important message about safe online behaviours for younger students to remember? • How can you explain this idea in a simple, clear way? • How can you make your poster engaging and appropriate for younger children (e.g. middle primary)? **Support notes** Students will choose either digital footprints or passphrase security and design a poster that communicates the key messages of these lessons for younger students. Students could use a selection of digital templates to create a poster. Sites like Canva®, Adobe Spark® or Easelly® provide options for this. Alternatively, posters could be created on paper.	**Introduction** Revise learning from previous lessons about online safety using the questions below. Passphrase security: • What makes a passphrase weak or strong? • Why is passphrase safety important? Digital footprints: • What is a digital footprint and how is it created? • Why should we care about what we post or share online? • What are some easy ways we can protect our privacy online? **Learning activity** Explain to students that their task for this lesson is to produce a poster for a middle primary audience about either passphrase security or digital footprints, communicating their learning from the last two lessons. Students should ensure they communicate the key messages of their topic while also considering design elements such as image, colour and text, to make the poster engaging and easy to read. Students work collaboratively (individually, in pairs or small groups) to produce their posters, either using a digital template or on paper.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points Provide informal feedback to students, as needed. Focus on the information in the infographic, and its effectiveness as a form of communication. The teacher may choose to note student ability to transfer written information to a graphic form for communication purposes, as well as their skill in manipulating the template.	**Conclusion** Students share and respond to their own and others' work, considering how their choices in design (colour and layout) support their message. Display posters in classrooms, the library or around the school.

Term 1 Week 4: What's in a network?

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital systems Digital systems are connected in wired and wireless networks to transmit data for a variety of purposes	**Learning intention** Understand that digital systems can be connected through networks to share data for different purposes. **Focus questions** • What digital systems are in your home, school, or community, and how are these systems connected? • What is the purpose of connecting digital systems in a network? • What is the difference between a digital system and a network? **Support notes** In this lesson, students learn how digital systems (including hardware, software, and networks) are connected to one another to transmit data for different purposes, such as communication, printing, file sharing, or accessing the internet. Discuss the difference between a *digital device* (e.g. a tablet or printer) and a *digital system*, which may include several components working together (e.g. a computer connected to software and a network). Use real-world examples such as a school computer system connected to a server, wi-fi router, and shared printer. Students will draw simple network diagrams and identify both wired and wireless connections and describe the purpose of those connections (e.g. to print documents, to stream media, to send messages).	**Introduction** Show students images of common digital systems (e.g. smart TVs, printers, tablets, routers, smartwatches). Discuss: • Where have you seen or used these systems? • What do they connect to? • Why do we connect them? Introduce the concept of a network as a group of digital systems or devices connected to share data. Briefly explain the difference between wired (e.g. ethernet cables) and wireless (e.g. wi-fi, Bluetooth) networks and model how systems might be connected at home or school. Discuss the purposes of each digital system (e.g. printing, accessing cloud storage, security monitoring). Watch: An Introduction to Computer Networks – YouTube **Learning activity** Students create a network map. • Draw a labelled diagram of a real or imagined network from home, school or the community. • Include at least five digital systems (e.g. laptop, router, printer, smartboard, server). • Use arrows or lines to show connections and label as wired or wireless. • Annotate each connection with a short explanation of its purpose (e.g. Router connects to tablet to access internet for research).

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Review students' network maps for accurate drawings of systems, connection types, and purposes. • Collect exit tickets to assess understanding of key concepts like 'network,' 'digital system,' and 'purpose'.	**Conclusion** Students share their diagrams in pairs or groups and discuss the similarities and differences of their networks? Students complete an exit ticket: One thing I learnt about digital systems and networks today is …

Term 1 Week 5: Wired versus wireless networks

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital systems Digital systems are connected in wired and wireless networks to transmit data for a variety of purposes	**Learning intention** Understand the differences between wired and wireless connections in a network. **Focus questions** • How can you tell if a device is considered wired or wireless? • What are the strengths and limitations of wired vs. wireless networks? **Support notes** Introduce students to differences between wired and wireless connections and the strengths and limitations of each. **Wired**: A physical cable (like an ethernet cable) connects the device to the network. This is usually seen in desktop computers, smart TVs, or printers that stay in one place. **Wireless**: Data travels through signals like wi-fi or Bluetooth. This allows for portability and is often used in tablets, laptops, phones, and smart speakers. Use visuals or props like real cords, images of ports/routers, to support understanding here.	**Introduction** Review the learning from the previous lesson: What's in a network? Ask: • Have you ever used wi-fi? • How about plugging in a device to get the internet? Show some images or examples from home/school networks, such as a desktop with ethernet, a phone on wi-fi, a printer using Bluetooth. An online video explaining these networks, such as *Wired and Wireless Connections*, might be useful here. Tell students they'll become Network Detectives, investigating different network setups, to discover how devices are connected. **Learning activity** Use a T-chart on the board or projector to compare: • Wired – uses cables (ethernet), usually faster and more stable, limited mobility • Wireless – no cables (wi-fi, Bluetooth), more flexible, may be slower or have interference • Discuss why someone might choose one over the other.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Emphasise: • **Speed and reliability**. Wired networks are usually faster and less likely to drop out. • **Flexibility and convenience.** Wireless allows for mobility but can be affected by interference or distance. **Suggested assessment points** • Review students' completed investigation sheets • Review paragraph responses • Observe participation in quiz discussion	Students then move around the classroom or school identifying different networked digital systems (e.g. printer, laptop, smartboard, tablet). For each one, they complete an Investigation Sheet (Appendix A.2) using the following prompts: 1. Identify. Is this system connected by a wired or wireless network? 2. Observe. What evidence helped you work that out? (e.g. visible cable, wi-fi icon) 3. Compare. What might be the advantages or disadvantages of this type of connection for that device? 4. Evaluate. In what situation would this connection type be the better choice, and why? **Conclusion** After completing their investigations, students write a short response on their Investigation sheet to the question: 'If you were setting up internet for a new classroom, which type of network (wired or wireless) would you choose and why?' Encourage students to justify their choices using evidence from the lesson and considering factors like speed, mobility, safety, and number of devices.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Quick class reflection Make one side of the classroom 'wired' and the other 'wireless' and have students chose a side for each of the following items: • video gaming – wired or wireless? • a teacher's laptop – wired or wireless? • an iPad trolley – wired or wireless? • a smartboard – wired or wireless? • your home internet – wired or wireless (or both)?

Term 1 Week 6: How do digital systems communicate?

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital systems Digital systems are connected in wired and wireless networks to transmit data for a variety of purposes	**Learning intention** Understand how different digital systems connect and transmit data. **Focus questions** • How do digital systems transmit data? • What devices help data travel between systems? **Support notes** This is a hands-on lesson where students act out the way data, such as an image, moves across a network from one device to another, passing through key components like routers, switches, and servers. This helps them understand how digital systems connect and communicate. Teachers will need some printed copies of the Network role-play cards (Appendix A.3). **Suggested assessment points** • Completed student diagrams • Participation in the role-play demonstrating understanding	**Introduction** Discuss: • What is a digital system? • What happens when you send a message or print a document? • How does your laptop send information to a printer or the internet? Watch the video *A Packet's Tale. How Does the Internet Work?* and discuss the key messages. Define key terms like *server, router, switch* and *device.* Show a simple diagram of a network path: device → router → internet → server and go through the Network role-play cards (Appendix A.3). **Learning activity** Using envelopes to represent packets of data, students role-play the way digital systems send and receive data. Set up students in groups with each student being given a role and a role-play card. Outline the plan: Device A wants to send an image to Device B across the internet. But first, it has to be broken into smaller packets and go through different systems. The student playing Device A then breaks the 'image' into three or four envelopes (packets), each labelled with a packet number and destination (Device B).

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		The data then travels from: Device A → Switch → Router → Modem → Internet → Server (The server temporarily holds it.) It's then sent back through the Internet → Modem → Router → Device B. Device B then reassembles the photo - the student playing Device B collects all the packet parts back and rebuilds the complete image. **Conclusion** Students can draw a diagram of the network and label the path of the data.

Term 1 Week 7: Design your own network

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital systems Digital systems are connected in wired and wireless networks to transmit data for a variety of purposes **Design thinking skills** **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution	**Learning intention** Design a network and explain how the digital systems in it are connected and communicate with each other. **Focus questions** • What digital systems are important in your network and why? • What network devices are needed to make a network? • How will the systems be connected – wired or wireless? • How can you make sure all the devices communicate effectively? • How does data move across the network? **Support notes** These final two lessons on Digital systems are an opportunity for students to consolidate knowledge and to create a finished design product for assessment. Students could use a selection of digital templates from sites such as Canva, Adobe Spark or Google Docs® for this, or the digital networks could be represented on paper.	**Introduction** Recap key terms and ideas on networks, wired/wireless systems, data packets and devices from the last three lessons. Discuss: If you could design your own smart classroom, what devices would you include and how would they connect? **Learning activity** Working in pairs, students design a digital network for a futuristic school or smart home. Their design must: • include at least six digital systems • use a mix of wired and wireless systems • indicate/describe how data moves between the systems • identify key features, such as routers, servers, cloud storage, etc. They also need to present their completed networks to the class, detailing the digital systems they've used, the way they're connected and how information travels between them. Students can choose the way they want to create their network, using a digital tool or drawing on paper. Go over the marking key in Assessment Task 1 (Appendix B). After explaining the task, discuss the protocol for how students will work together in their groups. This should include goal setting, dividing tasks and deciding how to focus their time.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Students should be encouraged to set shared goals, allocate tasks, and follow agreed group protocols to complete their design. This includes managing their time, choosing tools appropriately (e.g. Canva, paper, Google Docs), and communicating their ideas clearly. Teachers may use a simple planning template or verbal agreement to reinforce team expectations. **Suggested assessment points** • Assessment Task 1 (Appendix B)	Ask students to complete a design team agreement based on their agreed protocol (either verbally or in writing). **Design Team Protocols:** • Our goal is to … • We will manage our time by … • We will divide the work by … • We will deal with disagreements by … **Conclusion** Students could finish the session with a gallery walk to check out each other's work in progress or alternately swap work with another group and give each other some peer feedback, based on the marking key criteria.

Term 1 Week 8: Design your own network (continued)

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital systems Digital systems are connected in wired and wireless networks to transmit data for a variety of purposes **Design thinking skills** **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution	**Learning intention** Design a network and explain how the digital systems in it are connected and how they communicate. **Focus questions** • What digital systems are important in your network and why? • What network devices are needed to make a network? • How will the systems be connected – wired or wireless? • How can you make sure all the devices communicate effectively? • How does data move across the network? **Support notes** This lesson continues from the previous session, with students completing their designed networks and sharing them with the class. **Suggested assessment points** • Assessment task 1 (Appendix B)	**Introduction** Consolidate learning and the project criteria by beginning the session with the sharing of a student example. Discuss: • What are the next steps for this group? • What have they done really well? • What could use some improvement? **Learning activity** Students are given time to complete their networks, checking them against the criteria before submitting to the teacher. Have each group take turns to present their network with the class and, after each one, give them some feedback aligned with the marking key (Appendix B). **Conclusion** Networks can be printed and displayed in the classroom or around the school.

Term 2

Weeks 1–8: Digital Technologies

Term 2 Week 1: Introduction to data representation

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Understand what data is and how it can be represented in different formats. **Focus questions** • What is data? • How is data used and represented? • Why is it useful to represent data in different ways? **Support notes** This lesson introduces students to the concept of data. Data can be anything that provides information – text, numbers, images, or sounds. The sorting activity helps students understand the differences between the types of data, and the poster task consolidates learning. Students should understand that digital systems deal with many different types of data, and that data, like pictures, sounds, or text, are represented and used in different ways. **Suggested assessment points** • Observation of group sorting task • Review completed posters for correct categorisation and understanding of concept	**Introduction** Brainstorm: 'What is data?' and list student responses on the board. Explain that data is information which can be text, numbers, images or sound. Give real-life examples of each of these i.e. names (text), house numbers (numbers), emojis (images), doorbell sound (sounds). **Learning activity** Students work in groups with sets of data cards (Appendix A.4) to sort the cards into the categories of text, numbers, images and sounds. As a class, discuss how each category might be stored or used in a digital system. Each group creates a poster showing the four types of data with some examples. Students divide a single A3 or A4 sheet, into four quadrants, one for each data type. In each quadrant they should include a definition of the data type, at least two examples and an image/illustration of that data type in action. For example: Text • definition in student-friendly language (e.g. 'Text is made of letters and words that we read.') • at least two examples from their card sort (e.g. 'hello', 'digital') • an illustration or emoji of someone reading or writing.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Number • student definition (e.g. 'Numbers show amounts, time, or prices.') • two examples (e.g. '$4.99', '2024') • a small graphic or image showing numbers used in real life (e.g. thermometer, clock). Image • student definition (e.g. 'Pictures we see on screens or signs.') • two examples or simple drawings (e.g. dog, car emoji) • clipped out icons or drawn images with labels. Sound • student definition (e.g. 'Sounds we hear, like a bell or music.') • two examples (e.g. 'bell ringing', 'laughter') • a drawing of sound waves, or someone using a speaker or headphones. Early finishers could add a fifth section in the middle titled: Where We See All 4 Types Together For example: • a smartphone (texts, numbers, pictures, sounds) • a YouTube video • a weather app.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Conclusion Share one example from each group and display posters around the classroom. Students could reflect on their learning using the following questions, or these questions could be used to guide a whole class reflective discussion: 1. Identify the type of data you think computers use the most and justify your answer. 2. Evaluate which type of data was easiest for you to sort and explain why. 3. Describe the type of data you use most often in your daily life and give examples to support your answer. 4. Explain why it's important for computers to recognise and process different types of data correctly.

Term 2 Week 2: Understanding binary code

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Understand how digital systems use binary (ones and zeros) to represent data. **Focus questions** • What is binary? • Why don't computers use letters or pictures? **Support notes** This lesson introduces binary, the language of computers. Computers use electrical signals, which are either on (1) or off (0). These binary digits combine to represent all kinds of data, from numbers and letters to sounds and pictures. Students often find binary challenging, so use visual aids and tactile activities like bead bracelets or necklaces to reinforce the concept. A detailed explanation of encoding standards (like ASCII) is not necessary, but it's useful to explain that computers have 'dictionaries' (encoding systems) to match binary codes to letters. Students will need: Beads in two colours (e.g. white = 0, black = 1, or any two contrasting colours), and string for bracelets or necklaces.	**Introduction** Begin by watching a short explanatory video on binary code such as *How Computers Work: Data & Binary* https://www.youtube.com/watch?v=USCBCmwMCDA or *Computer Science Basics: Binary* https://www.youtube.com/watch?v=M41M9ATm49M Explain that computers use binary code (just 1s and 0s) to represent information, including letters and numbers. Each character (like A, B, or 1) has a specific binary code using eight digits (called 'bits'). For example: 1. A = 01000001 2. B = 01000010 3. C = 01000011 **Learning activity** Give each student the binary alphabet chart (Appendix A.5). Students write their first name on a worksheet. For each letter in their name, they find the correct 8-bit binary string. For example: Name = MIA • M = 01001101 • I = 01001001 • A = 01000001 Students then complete a grid with these binary values next to each letter.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Check binary name sheets for accuracy • Observe students' ability to create a bracelet/necklace with the correct bead sequence • Ask students to explain what their bracelet/necklace represents and how binary works	Students create a bracelet or necklace representing their name in binary code. Use the two colours of beads to represent 1s and 0, i.e. 0 = white bead, 1 = black bead and for each bit in their name's binary code, they string the correct coloured bead in order. Tip: You may wish to separate each letter's binary group with a small knot or a different coloured bead. Each student ties their string into a bracelet or necklace. Early finishers could write a binary message and challenge a partner to decode it. **Conclusion** Students find a partner and explain how their bracelet or necklace spells their name in binary. Revisit the learning intention as a whole class and discuss: What else could be represented in binary?

Term 2 Week 3: Representing numbers and letters with binary

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Understand how binary is used to represent letters and numbers in digital systems. **Focus questions** • How do you convert numbers and letters into binary? • Why is this important? **Support notes** In this activity, students continue working with ASCII codes for uppercase letters (A–Z), which are then represented in binary. Reinforce that every letter has a unique ASCII value, and that value is stored in the computer as binary code. This works because binary, like our base-10 system, is a positional number system but it only uses two digits: 0 and 1. Students will practise encoding and decoding simple words by referencing the Binary Alphabet Chart which shows the binary equivalent of ASCII values. **Suggested assessment points** • Observe decoding accuracy in students' secret messages • Use partner feedback: Were you able to decode it? Was it accurate and easy to read?	**Introduction** Recap learning from last lesson: Binary is made of 1s and 0s. Show students how numbers can be represented in binary, for example 1 = 0001, 2 = 0010, 3 = 0011, etc. Discuss: How would we write the number five in binary? Explain that computers also use binary to store text. Each letter is first given a number using a system called ASCII, and that number is then stored in binary. **Learning activity** Give students a sheet of secret messages written in binary (Appendix A.5). Students use the Binary Alphabet Chart to decode the message. Example: 01001000 01000101 01001100 01001100 01001111 = H E L L O Students write their own secret message – a word, favourite food, or short sentence. They use the Binary Alphabet Chart to convert each letter into binary and record the message on the student template. Students then swap messages with a partner to decode.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Remind students to: • Use uppercase letters only for consistency • Write binary code neatly, in 8-bit groups with a space between each byte (e.g. 01000001 01000010) **Conclusion** Share some decoded messages with the class. Ask: What would happen if we got one digit in the binary code wrong? Discuss how even one incorrect bit can result in a message that doesn't make sense, reinforcing how precise digital systems need to be when storing and transmitting data.

Term 2 Week 4: Binary and images

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Understand how digital images are made from pixels using binary. **Focus questions** • What is a pixel? • How are images stored and shown on digital systems? • How is binary code used to represent an image? **Support notes** This lesson introduces students to the idea that digital images are made up of pixels – tiny squares that can be turned on or off (black or white). Each pixel is represented by a single binary digit: Black = 1, White = 0. For simplicity, only use black and white. Students don't need to understand colour models like RGB yet, but you can mention that colours are also stored as binary, just with more bits. An optional binary representation of colour has been included at the end of this session. The task also develops students' skills in: • Encoding (turning images into binary) • Decoding (reading binary to rebuild the image) • Debugging (noticing and correcting mismatches).	**Introduction** Provide grid paper and ask students to draw a square of 5x5 squares. Ask students to create a pattern using black and white tiles on their grid. Pose the question: How would you tell another group exactly how to recreate this pattern if they couldn't see it? Give students time to brainstorm communication strategies, trial them and reflect. Gradually introduce constraints: • You may only use 25 letters. • You may not use any letters — only numbers or symbols. Guide the discovery that a 1 could mean black and 0 white. Explain that students have just created a way to share pictures using binary, the language of computers. **Learning activity part 1: Decoding** Show a simple 10x10 pixel image (e.g. a cat or smiley face) in black and white on the board. Students translate the image into binary, writing 1 for black and 0 for white. This can be done digitally or with paper templates As a class, compare students' binary lines with the correct sequence.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Accuracy of the binary-to-image recreation • Contribution to group discussion on debugging and improvement	**Learning activity part 2: Encode and swap** Students work with a partner to draw a small black and white pixel image using a square grid. They then write a binary code (using 0s and 1s) for each row with eight bits per line. Groups should swap their code and without seeing the original image, decode the binary to reconstruct the image. Finally, swap again to compare and discuss the accuracy of the decoding. Remind students that this process is how image files are transmitted, with the sequence of binary values informing pixels what to display. Use mistakes as a learning opportunity and focus on debugging as an important part of computational thinking. Discuss: • What did you notice? • Where do you think it went wrong? • Can you spot where the code might have a bug? **Extension: Colour with binary (optional)** Explain that colour in digital images is also represented using binary, with each pixel on a screen made up of Red, Green and Blue (RGB) values. Each of these colour components are stored as a number from 0 to 255, and each of those numbers is written in binary using eight bits. That means every full-colour pixel is stored as 24-bit binary code – eight bits for red, eight for green, and eight for blue.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		As an extension, students can explore this by using a spreadsheet (e.g. Excel). Each cell becomes a pixel, and students enter RGB values to represent colours. Conditional formatting or cell colouring can be used to bring their design to life, linking binary colour values to visual outcomes. **Conclusion** Display students' original and recreated artworks side-by-side. Discuss: • What helped your partner decode the image correctly? • What challenges came up? • How did using binary help us communicate image data?

Term 2 Week 5: Emoji codes and data compression

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Understand how symbols and images are stored using codes. **Focus questions** • How are emojis stored and shared in digital systems? • What happens when you try to store lots of visual information? • Why is it important to represent data efficiently? **Support notes** This lesson introduces students to the idea of symbol encoding and data compression – reducing the size of files or messages while keeping the meaning. Compression is used in images, messages, music, and video and is critical to fast, efficient data sharing (e.g. streaming or messaging apps). Emojis are characters stored and transmitted digitally using Unicode, an international system that assigns a unique number to every emoji (just like ASCII does for letters). **Suggested assessment points** • Codebook accuracy and clarity • Use of compression to reduce message size • Contribution to group decoding and reasoning	**Introduction** Recap last week's learning: how black and white images can be represented using binary 1s and 0s, by turning pixels on or off. Explain that emojis might look like pictures, but they're stored in computers as codes, in the same way as letters. Discuss the special system called Unicode that gives each emoji a unique number which is stored in binary. Explain that the task for today is for students to create their own emoji codes and use a trick called compression to shorten long patterns of data. **Learning activity** Students are given 6–8 emojis and should create a 'codebook', assigning a short symbol or number to each one. Then they write an emoji message using only their codes. Pairs or groups swap and try to decode each other's messages. For example:  Message: ACBAC →  **Part 2: Data compression simulation** Give students a long binary message or emoji message with lots of repetition. Can they spot patterns or repeated chunks?

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Explain that a more efficient way to communicate long messages is to say how many times something appears, instead of writing it over and over. Prompt students to rewrite the message using compression logic (e.g. '3A' instead of 'AAA'). Introduce the idea of Run-Length Encoding (RLE), a simple compression method: • original: AAAABBBCC → 4A 3B 2C • binary: 111110000 → 5x1, 4x0 → 5•1 4•0. **Conclusion** Discuss: • What made the code easier or harder to read? • Why would a shorter message be useful when sending images or text over the internet?

Term 2 Week 6: Binary to decimal conversion

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Understand how to convert binary and decimal numbers. **Focus questions** • How do you change a decimal number into binary or a binary number back to decimal? • Why is it important to give clear instructions when sharing data or directions? **Support notes** This lesson focuses on the conversion of binary to decimal numbers. By creating and decoding a pathway using binary and decimal conversions, students understand the need for accuracy and clarity in instructions, allowing them to reflect on how digital systems rely on precise coding to process data. Show some visual examples (conversion tables, worked examples) and remind students that small errors can change the outcome completely. **Suggested assessment points** • Observation of student work and participation • Check correctness of binary-to-decimal conversions and pathways recreated in worksheets	**Introduction** Recap what students know about binary numbers and explain that while computers store numbers in binary, humans usually use decimal (0–9). Do Part A as a class: • use a sample grid pathway already coded in binary (Appendix A.6) • using the binary conversion table (Appendix A.6), follow the decimal instructions to navigate the path on the grid • check that the path matches the original. **Learning activity** Students now create their own binary instructions: • Draw a new path on the blank grid (Part B: Appendix A.6), writing the decimal numbers for each step of the path on the worksheet. • Convert those decimal numbers into binary (use a reference table if needed) • Write clear step-by-step binary instructions. Swap and decode: Students trade instructions with a partner (Part C: Appendix A.6). Each partner converts the binary numbers back to decimal to recreate the path on their own grid. Compare recreated paths with the originals.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Discuss any mismatches: • Were the instructions wrong? • Was there a conversion error? • Was the binary code misunderstood? **Conclusion** Finish by showing a good student example and discuss any challenges or successes students had with following each other's instructions and creating their paths. Students complete the written reflection (Part D: Appendix A.6). Discuss: • Why do we need to give clear, step-by-step instructions when we share data or directions? • Why is accuracy important when representing data in binary?

Term 2 Week 7: Designing a digital data poster

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Summarise prior knowledge about data and binary code and share it with others in a clear way. **Focus questions** • What is data and how do computers use binary to store it? • How could you explain this to someone? • Why is it important to represent data accurately? **Support notes** This lesson helps students consolidate their learning by creating a digital poster (e.g. Canva/Google Slides®/Microsoft PowerPoint®) that could be displayed for other classes or next year's students. Students could work individually, in pairs, or small groups. Provide scaffolds like sentence starters, example posters, or a checklist of key concepts. **Suggested assessment points** • Completed posters • Inclusion of accurate examples (binary, emoji codes, images) • Ability to explain choices to peers or teacher	**Introduction** Recap learning from previous lesson on converting between decimal and binary, giving and following instructions. Discuss: Imagine you have to explain everything we have learnt this term about data to a Year 5 student – what would you include? Show an example of an infographic or educational poster (on another topic) and discuss the features that make it clear and engaging. **Learning activity** Students plan and create a digital data poster that explains: • what data is • what binary is (on/off states, 0s and 1s) • how letters, numbers and images can be represented in binary • why data representation needs to be accurate. Encourage students to: • use diagrams (e.g. binary bracelets/necklaces, pixel grids) • add real examples from class (binary name, secret message, emoji codebook) • use student-friendly definitions • keep text short and visuals clear.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
		Provide a success criteria checklist that: • explains binary in simple words • gives at least one real example • includes image(s) or diagrams • uses colour and layout to help understanding. **Conclusion** Students share draft posters with a partner or small group, giving and receiving feedback on the following: • Is it clear? • Did I learn something from it? • What is one thing I can improve before the next lesson?

Term 2 Week 8: Sharing our posters

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Data representation Data can be represented by on and off states (zeros and ones in binary)	**Learning intention** Reflect on learning about data representation and share it with others. **Focus questions** • What did you learn this term about data and binary? • How has your understanding changed? • Why is data representation important in the digital world? **Support notes** This lesson completes the sequence of learning about binary representation, with students sharing their completed posters with real audiences (peers, another class, parents) and reflecting on their learning. **Suggested assessment points** • Completed digital data poster • Thoughtful reflection answers (oral or written)	**Introduction** Explain that students will finish and share their posters, reflect on what they learnt and celebrate their creativity and effort. **Learning activity** Give students time to complete their posters, using last week's feedback to add important details and generally improve their work. Set up a gallery walk of the printed posters displayed on desks/walls, or through the use of devices/projectors. Students circulate and view each other's work. Optional: invite the Year 5 class, buddy class, or parents to visit. Students prepare to: • explain one thing on their poster • discuss 'What was the most interesting thing you learnt?'

Term 3

Weeks 1–8: Digital Technologies

Term 3 Week 1: Scratch® – create a mini game challenge

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Implement algorithms in a visual programming environment involving variables and control structures (sequence, decisions, input and various types of iteration)	**Learning intention** Use Scratch to create a simple interactive game that includes movement, events, and sound. **Focus questions** • How do you control what happens in a Scratch game? • How can you use basic blocks to make something playable? **Support notes** This lesson sequence has been written using Scratch due to its accessibility and alignment with curriculum outcomes. However, the learning goals could be effectively taught using any block-based visual programming platform. Choose the platform that best suits your students' needs and your available resources. Block-based programming involves snapping visual code blocks together like puzzle pieces, ideal for beginners. Scratch (scratch.mit.edu) is a free platform where students can program animations, games, and stories. Further educator resources and tutorial videos are available at: https://scratch.mit.edu/educators	**Introduction** Introduce Scratch: Today, you'll use Scratch to create a mini game that a student could play in 30 seconds or less. Show students a short Scratch animation you've made or sourced (simple movement and speech). Ask students: • What makes this easy to understand? • What might make it fun for a Year 3 player? Demonstrate the basic coding blocks in Scratch, especially those for movement, events and sounds. Many simple game tutorials are available at: https://scratch.mit.edu/projects/editor/?tutorial=all **Learning activity** Create a 30-second Scratch game using: • a character that moves • something to collect or avoid • sound or visual feedback when something happens • a win or fail message at the end. Students work in pairs or individually. Focus on: • developing an understanding of basic control functions • customising characters or themes • keeping controls simple (e.g. arrow keys or spacebar only).

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	This lesson helps students learn core Scratch programming skills such as: • when green flag clicked • move, glide, or turn blocks • broadcast messages • using 'if touching' or 'repeat' blocks • playing sounds or switching costumes. Resources: • Devices with Scratch (online or desktop) • Headphones (for sound testing) • Scratch demo project for modelling **Suggested assessment points** Informal observation of block combinations and coding accuracy	**Conclusion** Students find a partner and try each other's mini games. Discuss: • Was it easy to play and understand? • What part of your game worked best for a younger audience?

Term 3 Week 2: Conditionals, iteration and variables

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Implement algorithms in a visual programming environment involving variables and control structures (sequence, decisions, input and various types of iteration)	**Learning intention** Use conditionals, iteration, and variables in Scratch to make the game interactive and fun. **Focus questions** • How can you make the game respond to the player's actions? • What are variables, and how can they be used to track progress or score? • How does iteration help simplify repeated actions in the code? **Support notes** This lesson builds on students' knowledge of Scratch, introducing or revisiting key coding structures that are essential for gameplay mechanics: • iteration (repeating actions e.g. moving enemies, scoring cycles) • conditionals (if/then logic to respond to player actions e.g. if touching, then change score) • variables (tracking score, time, or lives). Rather than isolated practise, students are encouraged to embed these as a feature they might use in their final game. This continues the client-focused approach, e.g. a Year 3 player might need clear feedback, such as 'You win!', an easy-to-understand score counter, and simple outcomes based on their actions.	**Introduction** Recap the mini game and coding blocks from the previous lesson. Introduce the three key tools for smarter games with visuals and examples: • conditionals: 'If I hit the wall, I lose.' • iteration: 'Keep moving the enemy across the screen forever.' • variables: 'Track score or number of collected items.' Show a quick demo of each example in Scratch (can use a shared Scratch starter file or screen recording). Discuss with the class: Why might a player need clear feedback like scores or 'you win' messages? **Learning activity** Students add to their game or create a new game, using: • at least one conditional (e.g. if touching a sprite, change score) • a type of iteration (e.g. enemy movement or timed countdown) • a variable (e.g. score, lives, time). Encourage students to build this as a test/prototype project or apply it directly to their developing game (if already planned).

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Resources • Devices with Scratch • Access to demo project or visual coding examples **Suggested assessment points** • Observation of correct use of at least one type of iteration, conditional and variable • Student reflection on how these improve gameplay or make the game more engaging • Prototype game snippet or screenshot showing these elements at work	For example: • a sprite that moves back and forth using iteration • a counter that goes up every time something is collected • a win message that appears if a certain score is reached. Assist students to troubleshoot issues by guiding efficient coding with 'repeat' or 'forever' iteration and checking that variable names are meaningful (e.g. not just 'score1'). **Conclusion** Students pair up and show their conditional/iteration/variable in action. Reflect as a class: • Which block made the biggest difference to your game? • How do these blocks help your game respond to the player? Optional exit ticket: One way I used iteration, variables, or conditionals today was …

Term 3 Week 3: Understanding the design brief

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Investigating and defining** Break down a design brief to define the purpose, requirements and constraints for a given task	**Learning intention** Understand how to break down a design brief and identify the needs of a specific user. **Focus questions** • Who is the audience and what do they need? • What makes a digital game suitable for younger students? • How do you begin designing a game with someone else in mind? **Support notes** This lesson introduces students to the idea that they will be designing a product for a client, not just for themselves. In this case, the client is a Year 3 student. Students will explore what makes a game fun, easy to use, and age-appropriate, and how understanding user needs impacts design decisions. If possible, students should work with a buddy class, allowing them to create a design brief for a real client. If this is not possible, you could prepare a sample design brief written 'from a Year 3 class,' highlighting desired game types, appropriate themes and user considerations (e.g. not too many controls, easy instructions, fun sound effects).	**Introduction** Introduce the project: You will design and build a Scratch game for a real audience comprising of Year 3 students. Brainstorm with the class: • What type of games do you think Year 3 students like? • What are the things to consider when designing a game for a younger audience? • What questions will we need to ask our client to get the information we need? Year 6 students interview small groups of Year 3s from a buddy class to find out the design brief or if this is not possible, they examine a teacher-created design brief from a Year 3 perspective. **Learning activity** Students complete their planning sheets (Appendix A.7): • write or draw what they know about their 'client' (Year 3s) • brainstorm possible game ideas that would match the brief • consider questions, such as What's the goal of the game? What will it look and sound like? What will make it fun and challenging but still achievable? Encourage sketching the early layout or character ideas and discussing game types that Year 3s might enjoy (matching, maze, simple jump/collect challenges, quiz, platform games).

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Resources: • Printed or digital design brief • Client profile and game planning sheet (Appendix A.7) • Access to examples of Year 3-level games (video clips or Scratch demos) **Suggested assessment points** • Students' notes or brainstorming showing clear understanding of user needs • Contributions during class discussion • Completion of Client profile and game planning sheet	**Conclusion** Share early game ideas in pairs or small groups and reflect as a whole class: • What are some important things to consider, when designing for someone else? • What's one idea you're excited to explore further? Optional: Create a shared class display of 'What Year 3s Need in a Game' to reference throughout the unit.

Term 3 Week 4: Planning our game: From concept to design

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Design algorithms in plain English and/or flow charts that involve user input, variables and control structures (sequence, decisions and various types of iteration: For, Repeat, While) **Design thinking skills** **Investigating and defining** Break down a design brief to define the purpose, requirements and constraints for a given task **Designing** Design alternative solutions achieved through an iterative process, including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps	**Learning intention** Design a game for a target audience by planning its purpose, layout and key features. **Focus questions** • What is the goal of the game, and how will it help or entertain a Year 3 player? • What will the player see, hear and do? • How will the game begin, end and give feedback? **Support notes** This lesson marks a shift from learning discrete coding skills to applying them in a purposeful design project. Students create a clear plan for their game based on their client (Year 3 students), outlining: • the game goal (purpose) • the user experience • design elements, including sprites, backgrounds, controls, sound • the use of variables, iteration and conditionals This lesson can be supported by a storyboard template, allowing students to sketch screens, describe gameplay flow and list coding features. Emphasise the importance of designing with the user in mind, using the Client profile and game planning sheet (Appendix A.7) to guide decisions.	**Introduction** Recap the design brief: You're building this game for a real audience – Year 3 students. What do they want from a game? Revisit client profiles and planning sheets from the previous lesson and brainstorm together: What would make our games really work for Year 3 players*?* Record ideas like: • clear instructions • simple controls • fun visuals/sounds • clear goal • responsive feedback. Negotiate which elements are essential (must-have versus nice-to-have) and turn these into success criteria or a marking key for students to use throughout. Explain that these criteria will be revisited in testing and refining and formally used to evaluate the completed games. Display these co-created success criteria around the classroom.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Resources • Game design planning sheet (Appendix A.8) or storyboard template Client profile brainstorms from Term 3 Week 3 • Coding guides or planning wall with common Scratch blocks **Suggested assessment points** • Completion of storyboard or planning sheet • Clear connection between game concept and audience needs	**Learning activity** Using the Game design planning sheet (Appendix A.8) or a storyboard template, students work individually or in small teams to plan out: • title and purpose • main screen layout (start, play, win/lose) • characters and backgrounds • controls (what keys or mouse actions are used?) • what code blocks they'll use (iteration for movement, conditionals for win/lose, variables for score or lives) • feedback that will support user understanding Encourage sketching and annotation, not just text. **Conclusion** Students share their game plan with a partner and give/receive feedback: • Does this make sense for a younger player? • Is there anything missing or confusing?

Term 3 Week 5: Building the game – Prototyping

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Implement algorithms in a visual programming environment involving variables and control structures (sequence, decisions, input and various types of iteration) **Design thinking skills** **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Investigating and defining** Break down a design brief to define the purpose, requirements and constraints for a given task	**Learning intention** Create a game based on a design brief. **Focus questions** • How can the game plan be turned into a working prototype? • What parts of my game should be built first? • How do you test and fix code as you go? **Support notes** This is the first of three weeks dedicated to building the final product. Students should refer to their Game design planning sheet to guide their work and stay focused on the client's needs (Year 3 students). Encourage students to start by creating the core gameplay loop: • Set up sprites, background, and basic player controls • Add interactions (e.g. collecting items, obstacles) • Begin adding win/lose conditionals or scoring logic • Emphasise building in steps, with students testing and improving small sections before adding more. This introduces students to basic project management and iterative design.	**Introduction** Explain to students that today they'll start building their actual game using the plan from the previous lesson. Remind students to: • stick to their design brief • think like a Year 3 player • build step by step – don't try to do everything at once. Share a checklist of build priorities: • create backdrop and sprites • add player controls • program one game mechanic (e.g. collect an item = score goes up) • test it. **Learning activity** Students work from their Game design planning sheet to start building the first playable version of their game. They should: • create or upload sprites • add movement controls (e.g. arrow keys, mouse movement) • begin implementing game logic (e.g. if touching item, score increases) • add one feedback feature (e.g. sound, message, costume switch).

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Resources • Devices with Scratch • Access to saved Game design planning sheets • Headphones (for sound feedback testing) **Suggested assessment points** • Evidence of beginning structure (sprites, controls, gameplay mechanics) • Use of at least one coding construct (loop, conditional, variable) • Student reflection on what they've built and next steps	**Conclusion** Students pair up with another group and share what they've done so far, and what the focus will be for the next session, reflecting on these questions: • What's working well so far? • What do you need to build next time? • What would a Year 3 player enjoy or struggle with?

Term 3 Week 6: Building, testing and improving

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Implement algorithms in a visual programming environment involving variables and control structures (sequence, decisions, input and various types of iteration) **Design thinking skills** **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution	**Learning intention** Improve a game through testing and feedback. **Focus questions** • Is the game clear, playable, and fun for a Year 3 player? • What feedback can help to improve the game? • How can you change or fix your code based on what you've learnt? **Support notes** This lesson focuses on the refine phase of the Design Thinking process, where students test, reflect, and make improvements to their digital solutions. Reinforce the idea that iteration, improving something step-by-step based on testing, is how most professional games and apps are developed. Encourage students to see feedback not as criticism but as a tool to make their game stronger. This will also be the time to debug and correct mistakes that only became obvious from having peers play the game. **Resources** • Devices with students' game projects • Sample feedback sentence starters on display • Headphones (if using sound)	**Introduction** Explain to students that they will be testing and improving the games that they were working on in the previous lesson. Explain the iterative process: improving something by testing, making changes, and testing again. Highlight that today's goal is not to finish the game but to improve it, focusing on things like: • does the game work properly? • are the instructions clear? • is it fun and engaging? • is there anything that's confusing or broken? Discuss what good/constructive feedback sounds like: • I liked how the game told me when I scored. • I didn't understand what to do at the start. • The character moved too fast for me to control. **Learning activity** Give students time to continue building their game. Once most students have completed the basic functional aspect of their game, have students find a partner or rotate in small groups to take turns testing each other's games. Students should use the co-created success criteria from Term 3 Week 4 to provide feedback.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Evidence of response to feedback (e.g. bug fix, updated feature) • Student reflection on changes made and why	Students then review the feedback they've received and begin making changes and continuing to build their games, including: • fixing bugs • adjusting difficulty • clarifying controls or messages • adding sound or visual feedback. **Conclusion** Quick class share: One change I made today was … Optional exit ticket: • One piece of feedback I received was … • One way I improved my game today was …

Term 3 Week: 7 Finalise and polish

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Implement algorithms in a visual programming environment involving variables and control structures (sequence, decisions, input and various types of iteration) **Design thinking skills** **Designing** Design alternative solutions achieved through an iterative process, including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution **Evaluating** Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes and functionality, with consideration of constraints for the designed solution	**Learning intention** Review and improve a game to make it clear, engaging, and ready to present. **Focus questions** • What final changes can be made to improve your game for a Year 3 player? • How can you make sure everything works the way it should? • What makes a game feel complete and ready to share? **Support notes** This is the final session before students showcase their games. The goal is for students to complete their game, ensuring that: • controls work smoothly • sprites behave as expected • instructions are clear and readable • win/lose or end conditions are present • sound and visuals enhance the experience. Model testing as the user and encourage students to take pride in the finished product. **Resources** • Devices with Scratch • Access to saved game files and planning templates • Headphones (if using sound)	**Introduction** Explain to students that this will be the final session to complete and polish their game, ready for showcasing to their clients (Year 3s) in the next lesson. Remind students of the success criteria for the project. Explain that these criteria should be used to guide their progress and help them assess what still needs to be done. With student permission, share one or two near-complete examples with the class. Together, walk through the criteria and model how to use them as a checklist for improvement. This process will help students reflect on their own work and determine how close they are to being 'showcase ready.' **Learning activity** Students work on: • fixing any bugs or glitches • adding missing feedback elements (e.g. sounds, scoring, messages) • making sure the design and instructions are clear and simple • final testing - play through the game from start to finish as if you're a Year 3 player. Optional peer check: Students swap briefly with a partner for a 'last look' test.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Clear signs of refinement (e.g. debugged features, clarified instructions, improved layout or sound) • Student self-assessment: What change made the biggest difference?	**Conclusion** Save final versions and name files clearly (e.g. GameTitle_Name_Final). Class reflection circle or quick share: • What was one detail you added today that made your game better? • Which part are you most excited for your audience to try?

Term 3 Week 8: Showcasing and reflecting on learning

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Digital implementation Implement algorithms in a visual programming environment involving variables and control structures (sequence, decisions, input and various types of iteration) **Design thinking skills** **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution **Evaluating** Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes and functionality, with consideration of constraints for the designed solution	**Learning intention** • Reflect on design, improvements, and delivery of a solution for a real audience. **Focus questions** • How does the game meet the needs of your audience? • What did you learn about coding and designing a digital solution? • What challenges did you overcome, and what would you do differently next time? **Support notes** This final lesson is a celebration of student learning and creativity. Create a positive, supportive atmosphere and, if possible, invite the Year 3 'client' class, families, or another audience to view the games. Emphasise not only the final product but the entire design process from understanding the brief, through building and refining, to presenting a complete solution. Students should present: • their completed game • who it was designed for and why • one feature they're proud of • one challenge they overcame.	**Introduction** Explain the purpose of the showcase: to share work, explain your learning, and celebrate everyone's creativity. Review respectful presenting and audience behaviour (e.g. listening, encouraging, asking thoughtful questions). Share the format for the showcase: • presenters introduce their game and explain its purpose • audience plays the game • presenters share something they're proud of and something they found challenging • optional question time or feedback. Prepare digital devices and headphones (if using sound). Set up project stations and run a whole-class rotation to share. Discuss how to be a respectful audience: • pay attention and listen • ask kind and curious questions • celebrate others' efforts, not just outcomes. **Learning activity** Option 1: Station rotations • Set up stations or laptops around the room. • Students take turns presenting and rotating through other's games. • Year 3 visitors or peers leave sticky note comments or use a simple rating sheet.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Allow time for students to also complete their Final Reflection Sheet (Appendix A.9) helping to consolidate learning and support assessment. **Suggested assessment points** • Completed Scratch games, evaluating functionality and design, as well as suitability for the Year 3 client • Completed Game design reflection with thoughtful responses	Option 2: Whole-class presentations • One group presents at a time via projector. • Presenter walks class through gameplay and design decisions. Encourage presenters to explain: • what the player must do • who the game is for and how they considered their needs • what coding features (loops, conditionals, variables) they used • what they would improve if they had more time. **Conclusion** Students complete their *Game design reflection* (Appendix A.9) and then conclude with a whole-class discussion: • What did you learn about designing for someone else? • How did you solve problems along the way? • What advice would you give next year's class doing this?

Term 4

Weeks 1–8: Digital Technologies

Term 4 Week 1: Safe and unsafe digital behaviours – Privacy in action

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Privacy and security Digital footprint and privacy considerations when collecting user data	**Learning intention** Recognise safe and unsafe behaviours online, and how privacy matters when sharing or collecting information. **Focus questions** • What makes a digital behaviour safe or unsafe? • What is private or sensitive information when using or collecting data? • Why does privacy matter when collecting or sharing data from others? **Support notes** In this lesson, students extend beyond just personal safety to begin thinking critically about privacy when they interact with others online or gather data (e.g. class surveys, digital forms, apps). Build on their prior knowledge of passphrases and digital footprints from Term 1 by exploring safe/unsafe behaviours and introducing respectful, ethical handling of others' information. For example, if you create a class survey, what personal details should (and shouldn't) you ask for? Why does it matter? **Resources** • Safe/unsafe? – Situation cards (Appendix A.10) • Whiteboard or large poster paper for class privacy guidelines	**Introduction** Ask: What's the difference between safe and unsafe behaviour online? Discuss examples (e.g. sharing kind comments vs. posting private photos, asking someone's favourite colour vs. asking for their home address). Introduce the idea that privacy doesn't just mean protecting your own data — it also means respecting other people's privacy when you collect or use their information. **Learning activity** Provide students with Safe or unsafe? – Situation cards (Appendix A.10) showing situations like: • sharing a class project online without names • posting a friend's birthday and photo publicly • running a survey that asks about favourite books • collecting email addresses and sharing them without permission. In pairs or small groups, students sort the cards as being either: • safe/ethical • unsafe/privacy concern • not sure/needs discussion. Groups can then come up with a couple of examples of rules or guidelines to consider when collecting and sharing data.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Student participation in sorting and discussion • Understanding shown in reflections and shared guidelines	**Conclusion** Discuss: If you collect data for a project (like a survey), how can you respect people's privacy? Create a class list of privacy guidelines (e.g. only collect what you need, don't share personal identifiers, get permission if needed).

Term 4 Week 2: Recognising online threats and data privacy risks

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Privacy and security Digital footprint and privacy considerations when collecting user data	**Learning intention** Recognise common online threats and explain how they relate to privacy and data protection. **Focus questions** • What kinds of online threats can steal or misuse data? • How do phishing scams, fake messages, or insecure websites put privacy at risk? • How can personal and collected data be protected from threats? **Support notes** This lesson expands from recognising phishing and scams to connecting online threats with privacy risks for both the student's own data and any data they might collect from others. For example, if you collect survey data using an insecure app or post results without consent, you increase the privacy risk. **Resources** Sample phishing emails, fake app messages, or insecure website screenshots (age-appropriate, teacher-created) **Suggested assessment points** • Accuracy in identifying privacy risks • Participation in group discussion	**Introduction** Ask: What does a scam or phishing message look like? Show examples of child-friendly fake messages or phishing emails. Discuss: Why do scammers want your information? What could they do with it? **Learning activity** Provide mixed examples of: • a safe email or message • a phishing email • a fake app or website asking for login details • a protected school survey vs. a public survey that collects too much data. Students work in groups to decide for each example: • What's the privacy or data risk? • Who could be affected (me or others)? • What action should we take (avoid/report/protect)? Groups record and share top tips for protecting data from threats. **Conclusion** Reflect as a whole class: If you were collecting data for a project, what steps would you take to keep it safe? Build on last week's class privacy guidelines, adding tips like: • use trusted platforms • don't store personal identifiers you don't need • keep login details private.

Term 4 Week 3: Digital project planning

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Investigating and defining** Investigate and select resources considering constraints, properties and functions appropriate for the given task	**Learning intention** Use design thinking to plan a digital project that helps the community. **Focus questions** • What issues matter to the school or community? • How can a digital solution help? • What planning needs to be done before starting the project? **Support notes** This begins a series of lessons where students will collaborate on a digital project, giving students ownership and authentic purpose. The focus is on structured planning using design thinking, including: • empathising (Who are we helping?) • defining (What problem or issue are we addressing?) • ideating (What could we make?) • planning (How will we make it?) Groups will create digital products like short videos, websites, or infographics that promote awareness, educate others or solve a small community issue. Emphasise that good planning saves time later and that respecting roles, timelines, and privacy matters is part of the project management skillset.	**Introduction** Begin with a brainstorm of community or school-based issues. For example: • litter and waste • cyberbullying • respect • playground safety • mental health awareness • looking after school equipment. Discuss: How could a digital solution (video, poster, website, animation) help raise awareness or change behaviour? Record ideas and sort them into categories students could choose from. Explain that students will be choosing the digital resources they will use to create their work. Discuss: What might limit or affect what we can create? Lead a discussion that encourages students to consider the following constraints, when choosing their resources for the project: • time (we only have three weeks) • skills (what tools do we already know? what do we need to learn?) • resources (devices, software, internet access) • audience (age appropriateness, clarity) • privacy and ethical considerations (not using names/photos without consent)

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Resources • Printed or digital Project planning template (Appendix A.11) • Access to devices with internet • Sample digital tools for demo (e.g. Canva, iMovie®, Google Sites®, Scratch) **Suggested assessment points** • Completed Project planning template • Quality of group pitch and rationale • Participation in team discussions and planning • Teacher observation of engagement and collaboration	• file size, platform limits (e.g. Google Sites storage, Scratch complexity). Discuss real examples: If we choose to make a video, what are some constraints? (e.g. filming space, editing skills, time to film.) If we make a website, what are some constraints? (e.g. layout tools, time to learn the platform, keeping content readable.) **Learning activity** Put students into small groups (3–4 per group) and have each group select a topic that matters to them. Groups then work through the Project planning template (Appendix A.11) and talk through the big picture ideas of their project. **Conclusion** Groups give a one-minute pitch to the class: This is our project. It will help [audience] by [goal]. We will create a [product] and share it by [method].

Term 4 Week 4: Digital project planning (continued)

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Investigating and defining** Investigate and select resources considering constraints, properties and functions appropriate for the given task **Designing** Design alternative solutions achieved through an iterative process, including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps	**Learning intention** Use design thinking to plan a digital project that helps the community. **Focus questions** • Have all the steps needed for the digital solution been planned? • Is the project achievable and purposeful? • How will you make sure the solution is clear, respectful, and protects privacy? **Support notes** This lesson is about moving students from rough ideas into concrete, achievable plans for digital project creation. Guide them to: • break down big ideas into manageable actions • clearly define roles and timelines • start basic drafts or mock-ups of their solution. Emphasise the importance of clarity, privacy and respectful data use, especially if students are collecting or displaying information about others. Help students identify the tools they'll use (e.g. Canva, Scratch, Google Sites) and confirm everyone knows their role. Encourage iteration – it's okay to revise or simplify ideas to stay on track.	**Introduction** Recap from previous lesson the issue the students are addressing, the audience, and the format to be used. Explain that this lesson will focus on refining those ideas, checking they're achievable, and starting to map out what the project will look like. Use the focus questions for this lesson to guide students thinking and briefly revisit rules for safe sharing, as covered in previous lessons, for students who will be using or collecting data. **Learning activity** Groups revisit and refine their templates, applying any feedback they received after their pitch from last week. Students can then begin to mock-up their designs: • sketch wireframes (website layout, poster structure) • write scripts/storyboards if creating videos • explore chosen tools (e.g. try out Canva or Google Sites). **Conclusion** Bring students back together to discuss: • What progress did your group make today? • What was the hardest part of finalising your plan? • What do you still need to figure out before you begin building next week?

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Resources • Completed Project planning template (Appendix A.11) • Access to devices with internet • Sample digital tools for demo (e.g. Canva, iMovie, Google Sites, Scratch) **Suggested assessment points** • Completed Project planning template • Quality of group pitch and rationale • Participation in team discussions and planning • Teacher observation of engagement and collaboration	Each student completes an exit slip, writing one thing their group is now clear on, and one thing they still need help with.

Term 4 Week 5: Digital project development

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Designing** Design alternative solutions achieved through an iterative process, including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution	**Learning intention** Collaborate to build a digital solution that addresses a real issue. **Focus questions** • Are you using your plan to guide your work? • What do you need to build first? • How are you collaborating and dividing the work fairly? **Support notes** Students now begin building their digital product. Expect a lively, flexible classroom where students are in creation mode, working with different tools (e.g. Canva, Google Sites, iMovie, Scratch). Your role is to: • provide check-ins and support as needed • help students solve technical problems • encourage inclusive teamwork and shared roles • reinforce expectations about respecting privacy and appropriate digital content • promote iteration – building, testing, and improving. **Resources** • Devices with relevant software/platforms • Headphones (for video/sound projects) • Planning templates, wireframes, or scripts from earlier weeks	**Introduction** Explain to students that they will be beginning to create their designed solutions. They should start by getting the core content or main idea working first. Remind students that it's okay if things change at this stage and they should just keep communicating with their team. **Learning activity** Groups begin creating their digital projects, based on their planning. **Conclusion** Quick group share: • What did you achieve today? • What's one thing you will work on next time? Teacher may document progress via anecdotal notes or quick check-ins.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points • Observation of group roles and engagement • Teacher conferencing during group check-ins • Draft version of project in development	

Term 4 Week 6: Midpoint check-in and feedback

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Designing** Design alternative solutions achieved through an iterative process, including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution **Evaluating** Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes and functionality, with consideration of constraints for the designed solution	**Learning intention** Seek and use feedback to improve my digital solution. **Focus questions** • Is the project on track to meet its goal? • What feedback can help improve your project? • How are you working together as a team? **Support notes** During this lesson, students will engage in peer feedback to reflect on their progress and identify ways to improve their digital projects. Model how to give and receive feedback respectfully and constructively. Use sentence starters or a feedback slip to guide responses. Encourage students to check their work against agreed success criteria to ensure they're on track. Support groups as they interpret feedback, make decisions about revisions, and resolve any technical issues or design challenges. **Resources** • Devices with relevant software/platforms • Headphones (for video/sound projects) • Peer feedback slips • Planning templates, wireframes, or scripts from earlier weeks	**Introduction** Explain to students that they will be stopping to reflect, test, and gather feedback, to improve their work. Display the Marking key, (Appendix C: Assessment Task 2), and go over the criteria with the whole class. With the group's permission, model the feedback process by sharing an unfinished project with the class and give feedback, based on the marking key criteria. **Learning activity** Groups swap projects and record feedback using the peer feedback slip. Feedback discussion should be aligned with the marking key criteria. Use a Peer Feedback Slip prompting: • I liked… • It would be even better if… After receiving feedback, groups then discuss any changes they could make, including technical fixes (broken links, typos, images that don't load), and continue building their projects. **Conclusion** Finish by sharing a project from the class and have them discuss the changes they made following feedback and their next steps for the next lesson.

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
	Suggested assessment points This sequence of lessons can be used as a summative assessment (Appendix C: Assessment Task 2). Task sheets are provided, along with a Marking Key. Also consider: • Evidence of meaningful revision or improvement • Student reflection or notes on feedback • Continued collaboration and focus	

Term 4 Week 7: Finalise the digital project

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Producing and implementing** Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution **Evaluating** Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes and functionality, with consideration of constraints for the designed solution	**Learning intention** Revise and complete digital solution to make it clear, safe, and engaging. **Focus questions** • Is your project complete, clear, and polished? • Have you checked everything for quality and safety? • Are you ready to present? **Support notes** This lesson focuses on refining and completing digital projects in preparation for the showcase. Encourage students to test their work as if they are the audience, checking for clarity, flow, and technical accuracy. Prompt attention to detail – such as working links, readable text, and consistent formatting – and support students in sharing the final editing and presenting responsibilities. **Resources** • Devices with relevant software/platforms • Headphones (for video/sound projects) • Planning templates, wireframes, or scripts from earlier weeks **Suggested assessment points** • Teacher observation of polish and completion • Teamwork and troubleshooting • Ability to clearly describe project and its purpose	**Introduction** Explain to students that this will be their final session to complete their projects, ready for presenting. Review the final presentation expectations: clarity, confidence, respectful sharing. **Learning activity** Students continue to finalise their projects, working on: • fixing final layout or design details • adding finishing touches (titles, sound, transitions) • practising how they'll present (who will talk, how they'll demo) • testing to ensure it works on another computer/device. **Conclusion** Lead the final class reflection: • What are you most proud of? • What do you still need to finalise before presenting?

Term 4 Week 8: Presentation and reflection

Western Australian Curriculum content	Teaching and learning intentions	Learning experiences
Design thinking skills **Project management** Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions **Evaluating** Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes and functionality, with consideration of constraints for the designed solution	**Learning intention** Present digital project confidently and reflect on learning. **Focus questions** • How does your project help or inform others? • What did you learn from working together? • What would you improve in the future? **Support notes** This final lesson celebrates students' efforts and learning through sharing and reflection. Invite another class, a buddy group, or families to attend if possible. Focus on positive presenting skills, clear communication, and respectful audience behaviour. Guide students to not only share what they created, but also reflect on their learning: What did they discover about digital tools, working in a team, managing time, or solving problems? Use this session to highlight successes, growth, and achievement, regardless of how 'polished' the final product is. **Resources** • Devices to present digital products (or printed displays) • Reflection sheets and presentation prompt sheets **Suggested assessment points** • Appendix C, Assessment task 2	**Introduction** Explain that today is about celebrating the hard work and creativity students have shown over this project. Review respectful audience behaviour: • eyes on speaker • no interrupting • applaud everyone's efforts • ask kind, curious questions. And explain the showcase format: • each group will take turns presenting • everyone in the group should speak or demonstrate something • option to include a visual (e.g. printed layout, screenshots of code, storyboard). **Learning activity** Each group presents their project to the class or visitors. Presentations should include: • a brief explanation of the issue they addressed • a demonstration of the digital product (play the video, walk through the site, show the animation/poster) • who the project is for and what message it shares • something they are proud of and something they found challenging. **Conclusion** Students individually complete a Reflection Sheet (Appendix A.12).

Appendix A

Resources

Appendix A.1: Online profile for factional character – Term 1 Week 1

Name: Maya_Rae07
Age: 12
Location: Perth, WA
About Me (Bio): Music is life | Drawing every day | Dog lover | Always at the skate park or beach

---

Recent posts (Social media feed)

Post 1:
Shared location: 'City Skate Park, 4pm with the crew!'
3 days ago
Image of Maya and friends holding skateboards.
'Best afternoon ever #skatepark #besties #perthlife'
Post 2:
1 week ago
Photo of Maya's dog sitting on her front porch with the street number visible in the background.
'Meet Milo! He's waiting for me to come home from school.'
Post 3:
2 weeks ago
Drawing of her school art project with her school logo partially visible on her art smock.
'So proud of my painting for art class! #artproject #schoollife'

Recent likes and follows

- Followed: 'CoolSkaterGirls' (public skateboarding group).
- Liked a post from 'StarPopBand' (band's official page).
- Commented 'Same!!' on a friend's post: 'Can't wait for the school dance!'

Comments from friends

@bree_lou: 'Haha we were so late to maths after this.'
@mitch_gam3r: 'I know that skate park! I go there too.'

1. What kind of personal information can you find out about Maya from her profile and posts?

_____

_____

_____

_____

2. What could someone guess about where Maya lives or goes to school?

_____

_____

_____

3. Which parts of Maya's online activity do you think are safe? Which might be risky?

_____

_____

_____

_____

4. How could Maya improve her online safety and protect her digital footprint?

_____

_____

_____

_____

5. What advice would you give to Maya (or someone like her) to stay safe online?

_____

_____

_____

_____

Appendix A.2: Network detective – Term 1 Week 1

You are a Network Detective! Investigate each case and decide whether the device is connected by a wired or wireless network. Use the clues to help you.

Case Files

Case #	Description/clues	Wired or wireless?	How do you know?	Advantages/disadvantages of this connection type
Case 1				
Case 2				
Case 3				
Case 4				
Case 5				

Reflection: If you were setting up internet for a new classroom, which type of network (wired or wireless) would you choose and why?

_____

_____

_____

_____

_____

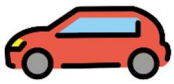
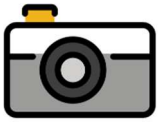
_____

Appendix A.3: Network role-play cards – Term 1 Week 6

Router **You choose the best path for each packet to travel. Pass the packet along to the modem.**	**Device A** **You are sending a photo! Break the photo into 3–4 data packets and send them one at a time through the network.**	**Switch** **You direct data inside a local network (like your school). Make sure the data packet gets to the router!**
Server **You store the photo. When you receive all the packets, you can send them on to Device B.**	**Modem** **You convert digital data so it can travel through cables or phone lines. Send the packet to the internet!**	**Internet** **You are the 'network of networks.' Help the data packet travel to the server, and later back to the receiver.**
	Device B **You are receiving the photo! Collect all the data packets and reassemble them in order.**	

Appendix A.4: Data sorting cards – Term 2 Week 1

Print and cut out the cards below. Students will sort them into categories: Text, Numbers, Images, and Sounds.

hello	**school**	**playground**	**welcome**	**digital**	**lunch**
35	**9.5**	**2026**	**$4.99**	**100%**	**12:45**
					
bell ringing 	**dog barking** 	**clapping hands** 	**laughter** 	**birdsong** 	**drumbeat** 

Appendix A.5: Binary alphabet chart – Term 2 Weeks 2–3

Use this chart to find the binary code for each letter of the alphabet (uppercase).

Letter	Binary Code
A	01000001
B	01000010
C	01000011
D	01000100
E	01000101
F	01000110
G	01000111
H	01001000
I	01001001
J	01001010
K	01001011
L	01001100
M	01001101
N	01001110
O	01001111
P	01010000
Q	01010001
R	01010010
S	01010011
T	01010100
U	01010101
V	01010110
W	01010111
X	01011000
Y	01011001
Z	01011010

This resource includes the Binary Detective decoding sheet (with answers) and the Secret Message encoding template.

Section 1: Binary detective – Answer key (teacher version)

Binary code	Decoded message
01001000 01001001	HI
01000011 01000001 01010100	CAT
01001110 01000001 01001101 01000101	NAME
01000100 01000001 01010100 01000001	DATA
01000110 01001111 01001111 01000100	FOOD
01010000 01001100 01000001 01011001	PLAY
01000110 01010101 01001110	FUN
01010011 01000011 01001000 01001111 01001111 01001100	SCHOOL

Section 2: Secret message – Student template

Decode these secret messages:

Binary vode	Decoded message
01001000 01001001	
01000011 01000001 01010100	
01001110 01000001 01001101 01000101	
01000100 01000001 01010100 01000001	
01000110 01001111 01001111 01000100	
01010000 01001100 01000001 01011001	
01000110 01010101 01001110	
01010011 01000011 01001000 01001111 01001111 01001100	

Write a message in capital letters and convert it into binary using the Binary Alphabet Chart.

My message:

_____

_____

_____

_____

Binary code:

_____

_____

_____

_____

Partner's decoded message:

_____

_____

_____

_____

Appendix A.6: Binary blocks – Term 2 Week 6

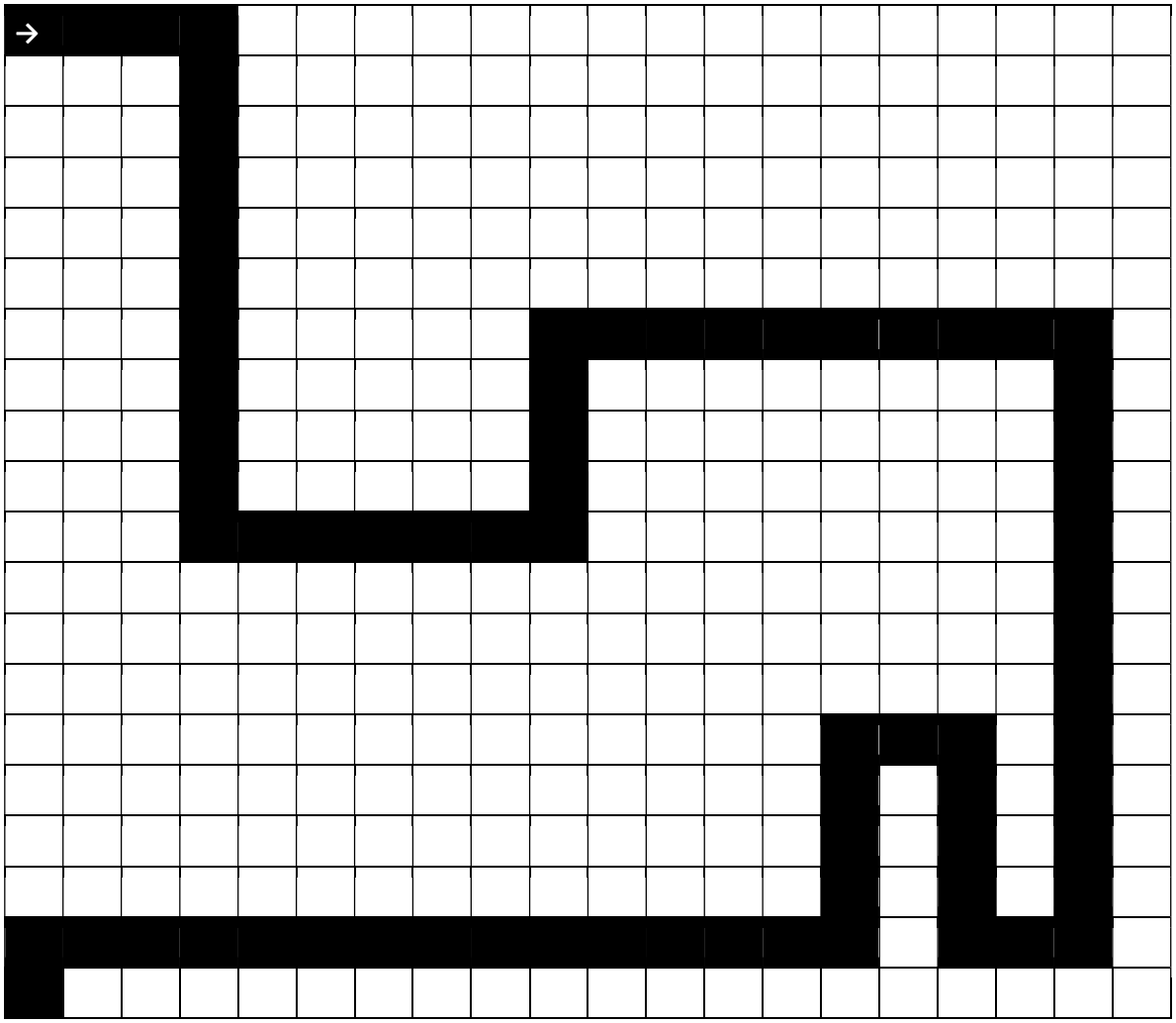
Decimal to binary conversion table

Decimal	Binary
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001
10	1010
11	1011
12	1100
13	1101
14	1110
15	1111
16	10000
17	10001
18	10010
19	10011

Name: _____

Part A: Navigate the pattern shaded in black

The instructions for navigating the path are provided in binary numbers. The first few have been done for you. Complete the instructions.



Instructions required to navigate the maze – using binary numbers:

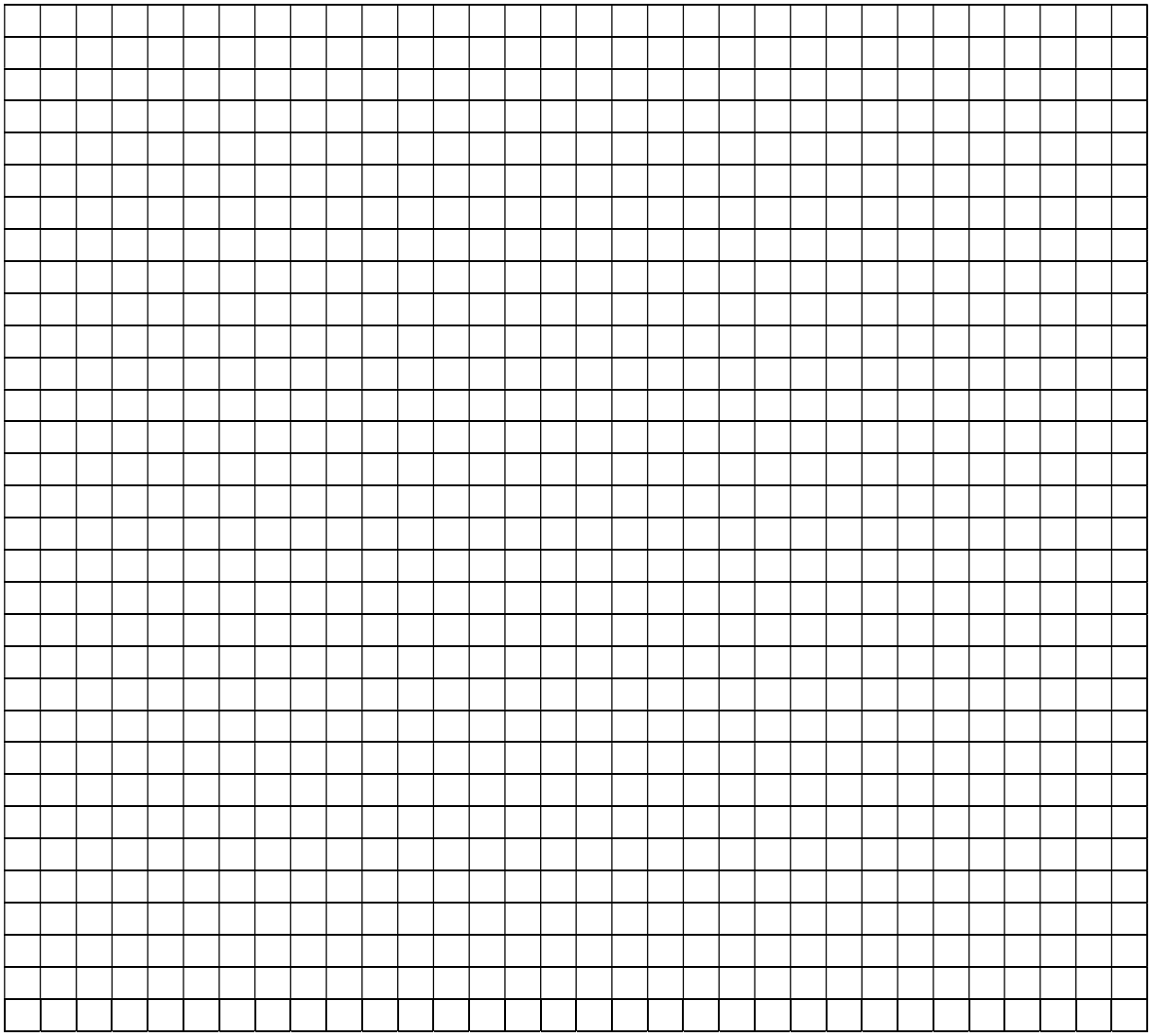
- starting position: top left corner (indicated by a→)
- move right 0011 places (i.e. three places in decimal figures)
- move down 1010 places (i.e. 10 places in decimal figures)
- move right 0110 places (i.e. six places in decimal figures)
- move up 0100 places (i.e. four places in decimal figures).

For the remainder of the instructions, complete the missing binary figures:

- move right _____ places (i.e. ___ places in decimal figures)
- move down _____ places
- move left _____ places
- move up _____ places
- move left _____ places
- move down _____ places
- move left _____ places
- move down _____ places.

Part B: Design a path of your own for someone else to navigate

Firstly, draw the path that you wish the other person to follow, but do not show them the diagram. Start your path in a corner of the grid.



On the next page, write the instructions including the following:

- which corner to start in
- which direction to move in (i.e. up, down, left, right)
- how many spaces to move – must be given using binary numbers only.

Path instructions (created by _____)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

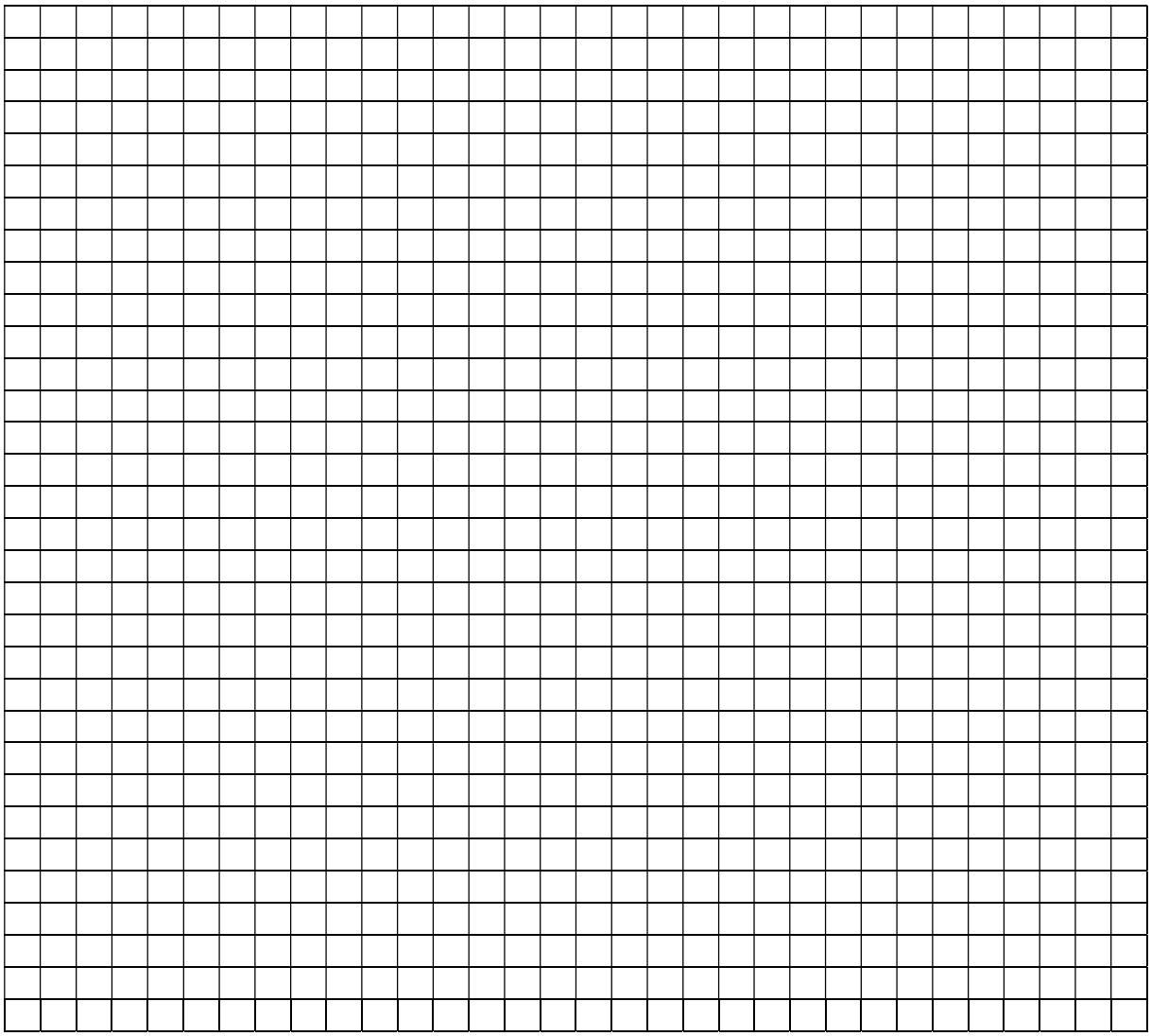
_____

Part C: Swap instructions and recreate the path

Give your instructions to someone else in the class to follow. Do not share your original diagram.

Once you have received instructions from someone else, follow their directions and draw the path in the grid below.

Hint: Convert the binary numbers in the instructions back to decimal numbers to know how many places to move.



Part D: Evaluation

Once you have finished, compare your original diagram with the path drawn by another student using your instructions. Do they look the same? If not, explain why you think they are not the same.

_____

_____

_____

_____

Appendix A.7: Client profile and game planning sheet – Term 3 Week 3

Your task this term is to design and build a digital game using Scratch – but not for yourself!

Your 'client' is a Year 3 student. They are younger, still learning to read well, and enjoy bright visuals, fun characters, and easy-to-use games.

Use this worksheet to help you explore your client's needs and brainstorm ideas for your game.

Step 1: Build a client profile

1. What do Year 3 students like? (Think about topics, colours, animals, etc.)

_____

_____

2. What kinds of games do you think they would enjoy?

_____

_____

3. What should we keep in mind when making a game for someone younger?

_____

_____

Step 2: Brainstorm game ideas

Think of at least two game ideas you could create for your Year 3 client.

Idea 1:

Game type:

_____

Theme/characters:

_____

Goal of the game:

_____

Why it suits a Year 3 player:

_____

Idea 2:

Game type:

_____

Theme/characters:

_____

Goal of the game:

_____

Why it suits a Year 3 player:

_____

Step 3: Share

Share your best idea with a partner. Write one thing you learnt from their idea:

_____

_____

Appendix A.8: Game design planning sheet – Term 3 Week 4

Use this template to plan your Scratch game before you start coding.

Game title:

_____

Game type (maze, quiz, catch game, etc.):

_____

Game goal (What does the player need to do?):

_____

_____

Characters/sprites and backgrounds:

_____

_____

Controls (How does the player interact?):

_____

_____

_____

_____

Feedback (What sounds, effects or messages happen?):

_____

_____

_____

_____

Win/lose condition (How does the player know if they won or lost?):

_____

_____

_____

_____

Special features (iteration, conditionals, variables, such as score, timer, etc.):

_____

_____

_____

_____

Not sure what kind of game to make? Here are some fun ideas:

Maze game: Guide a character through a maze to the finish without touching walls.

Catch game: Move a basket to catch falling objects; gain points for each one caught.

Chase game: A player-controlled sprite chases or avoids another sprite on the screen.

Quiz game: Ask fun or tricky questions; give feedback for right or wrong answers.

Platformer game: A character jumps across platforms, avoiding obstacles to reach a goal.

Theme game: Create a game around a sustainability or history theme you've learnt in class.

Tip: Start simple! Focus on making the basic idea work first, then add cool extras later.

Appendix A.9: Game design reflection – Term 3 Week 8

After the showcase, complete this reflection to think about what you learnt.

1. Describe what you learnt about coding and design from this project.

_____

_____

_____

_____

2. Explain what you are most proud of in your game and why.

_____

_____

_____

_____

3. Identify the biggest challenge you faced and outline how you managed or solved it.

_____

_____

_____

4. If you could do the project again, what would you change or improve?

_____

_____

_____

_____

5. What is one coding skill or idea you want to keep practising?

_____

_____

_____

_____

Appendix A.10: Safe or unsafe?: Situation cards – Term 4 Week 1

Instructions: Cut up or share these cards and let students sort them into safe, unsafe or needs discussion categories.

Sharing a photo of your pet on a private family group chat	Asking classmates for their favourite book in a class survey	Running a class poll asking student's favourite lunch foods	Using a school-approved platform to collect anonymous feedback
Posting a friend's full name and birthday on a public social media post	Collecting email addresses and sharing them with an outside club without permission	Posting survey results online including students' names and ages	Sharing a classmate's phone number with someone online

Appendix A.11: Project planning template: Digital solution for our community – Term 4 Week 3

Project name: _____

Topic/community issue we're addressing:

_____

Purpose – what do we want people to do, know or feel?

_____

_____

_____

_____

Who is our audience?

_____

Digital format we will use (e.g. Canva poster, video, Scratch animation, website):

_____

Main message/key features we want to include:

_____

_____

_____

Constraints we need to consider (e.g. time, skills, devices, privacy, software limits):

_____

_____

_____

How we will work within these constraints (e.g. keep video under two minutes, choose Canva because we know it):

_____

_____

_____

_____

Roles – who will do what?

_____

_____

_____

Timeline and steps (over the next three weeks):

_____

_____

_____

_____

_____

_____

Appendix A.12: Project reflection sheet – Term 4 Week 8

1. Describe the issue your project addressed.
   Write 1–2 sentences:

_____

_____

_____

2. Explain what your team created and identify who it was for.
   For example, a website for Year 3 students about cyber safety

_____

_____

_____

3. What are you most proud of in your project?

_____

_____

_____

4. Identify the biggest challenge you faced during this project.

_____

_____

_____

5. Explain how you and your team worked together to solve problems.

_____

_____

_____

6. Summarise the feedback you received and describe how you used it to improve your project.

_____

_____

_____

_____

_____

7. If you could do this project again, what would you do differently?

_____

_____

_____

_____

_____

8. Identify any new skills or tools you learnt to use.

_____

_____

_____

_____

_____

9. In one sentence: How do you hope your project will help others?

_____

_____

_____

_____

_____

Appendix B

Assessment task 1

Design a digital network

Task details

Title	Design a digital network
Description	Students will design a digital network for a futuristic school or smart home. The network must include at least six digital systems with the key features identified, a combination of wired and wireless connections, and annotations explaining how data is transmitted. The final product will be presented visually and orally.
Type of assessment	Summative
Purpose of assessment	Assess students' understanding of digital systems, networks, communication protocols, and collaborative planning through a hands-on design task.
Evidence to be collected	Completed network diagram (paper or digital) and group presentation
Suggested time	Two one-hour lessons in class
Differentiation	Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged. Where appropriate, teachers may either scaffold or extend the scope of the assessment task.

Content descriptions

Digital systems

Digital systems are connected in wired and wireless networks to transmit data for a variety of purposes

Design thinking skills

Producing and implementing
Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution

Task preparation

Prior learning

Students have explored key networking components (e.g. router, switch, server), practised interpreting and drawing network diagrams, and understand the concept of data being transmitted across wired and wireless connections using agreed protocols.

Resources

Example diagrams, access to digital templates (e.g. Canva, Docs), printed symbols or drawing tools (optional).

Instructions for teacher

Review previous learning about network components and how digital systems transmit data. Working in pairs, students will design a digital network for a futuristic school or smart home. Their design must:

- include at least six digital systems
- use a mix of wired and wireless systems
- indicate/describe how data moves between the systems
- identify key features, such as routers, servers, cloud storage, etc.

Go over the marking key in Assessment task 1 (Appendix B).

Students complete the task in pairs during class time, with equal contribution expected from both members. Teacher support is available for clarification only.

After explaining the task, discuss the protocol for how students will work together in their groups. This should include goal setting, dividing tasks and deciding how to focus their time.

Ask students to complete a design team agreement based on their agreed protocol (either verbally or in writing).

Design team protocols:

- Our goal is to …
- We will manage our time by …
- We will divide the work by …
- We will deal with disagreements by …

Provide time for students to plan and draft their designs. Students can choose the way they want to create their network, using a digital template, a simple animation, or drawn on paper.

Encourage discussion and reflection through peer feedback and teacher questioning.

Allow time for students to orally present their designs.

Students finish with a gallery walk to view each other's work in progress or alternately swap work with another group and give each other some peer feedback, based on the marking key criteria.

Instructions to students

With a partner, design a digital network for a futuristic classroom or smart home.

Your network must:

- Include at least six digital systems or devices
- Use both wired and wireless connections
- Label how data flows through the network
- Identify key features, such as routers, servers, cloud storage, etc.
- Present your work clearly, with accurate terminology.

You'll also need to complete a design team agreement either verbally or in writing.

Design team protocols:

- Our goal is to …
- We will manage our time by …
- We will divide the work by …
- We will deal with disagreements by …

Be ready to explain your design choices and how your network ensures efficient and safe communication between digital systems.

Marking key

Description	Marks
Network design	
Includes six or more appropriate digital systems/devices with clear purpose and variety	3
Includes five or six digital systems/devices, mostly appropriate choices	2
Attempts to include multiple digital systems; some unclear or irrelevant	1
Subtotal	**/3**
Connection types (wired and wireless)	
Accurately and purposefully uses both wired and wireless connections	4
Uses both connection types with mostly correct application	3
Uses both connection types with some errors	2
Attempts to use both types, but with confusion or minimal accuracy	1
Subtotal	**/4**
Data flow and network infrastructure	
Clearly and correctly labels data flow paths and includes routers, switches, servers, etc.	4
Labels data flow and includes most infrastructure with minor errors	3
Some attempt to label data flow and infrastructure	2
Minimal or unclear use of flow labels or infrastructure components	1
Subtotal	**/4**
Use of digital technologies terminology	
Consistently and accurately uses technical terms (e.g. protocol, router, wireless, bandwidth)	3
Mostly accurate use of terms; some misuse	2
Attempts to use terms but with limited understanding	1
Subtotal	**/3**
Visual clarity and design	
Diagram is clearly organised, well-labelled, and enhances understanding of the network	4
Mostly clear layout and labelling; generally easy to understand	3
Somewhat disorganised; labels or flow may be missing	2
Layout is unclear or incomplete; difficult to interpret	1
Subtotal	**/4**

Description	Marks
Collaboration and group protocols	
Clear evidence of shared goal setting, task division, time management, and respectful collaboration	3
Evidence of group planning and shared roles; some minor issues	2
Limited evidence of shared protocol or unbalanced contribution	1
Subtotal	**/3**
Total	**/21**

Appendix C

Assessment task 2

Design and present a digital solution

Task details

Title	Design and present a digital solution
Description	Students will collaboratively design and create a digital solution (e.g. website, video, animation, infographic) that addresses a real issue in their school or local community. The solution must be planned using design thinking (empathising, defining, ideating, planning), including clear consideration of constraints (time, audience, resources, privacy), and be tested, refined and presented to an audience. Students will also reflect on their process and decisions.
Type of assessment	Summative
Purpose of assessment	Assess students' ability to plan, design, produce and evaluate a digital solution using design thinking and project management skills. Assess understanding of digital content creation, collaborative teamwork, ethical considerations (privacy, respectful sharing) and ability to seek and use feedback to improve their work.
Evidence to be collected	Completed Project planning template (paper or digital) Digital product (video, website, animation, infographic, etc.) Group presentation/pitch Individual reflection sheet
Suggested time	Six to eight lessons (part of full unit sequence)
Differentiation	Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged. Where appropriate, teachers may either scaffold or extend the scope of the assessment tasks.

Content descriptions

Design thinking skills

Project management
Use agreed protocols to set goals, manage competing factors, resources and time, to plan, develop and communicate decisions, when developing designed solutions for a given task

Investigating and defining
Investigate and select resources considering constraints, properties and functions appropriate for the given task

Designing
Design alternative solutions achieved through an iterative process, including critical thinking, graphical representations, use of a range of technologies, techniques, technical terms and/or a sequence of steps

Producing and implementing
Use a range of technologies, components and/or equipment to implement agreed protocols to produce a designed solution

Evaluating
Develop negotiated criteria to evaluate design features, graphics, selected technologies, processes and functionality, with consideration of constraints for the designed solution

Task preparation

Prior learning

Students have practised design thinking steps (empathising, defining, ideating, planning), explored sample digital tools (Canva, Scratch, Google Sites, iMovie), discussed ethical considerations (privacy, audience, consent), and reflected on what makes a digital solution clear, engaging and respectful.

Resources

- Project planning templates (Appendix A.11)
- Devices with internet
- Sample tools (Canva, Google Sites, Scratch, iMovie, etc.)
- Peer feedback slips and reflection sheets
- Marking key

Instructions for teacher

In Term 4, Weeks 3–8, guide students to brainstorm and choose a community/school issue, before planning a digital solution using design thinking. Students should identify tools, assign roles, and consider constraints, and then create and refine their product, using feedback. Encourage inclusive teamwork, respect for privacy and iterative improvement.

Students complete the task in small groups (3–4). Equal contribution is expected. Teacher support is available for clarification and guidance, but students are responsible for project decisions and production.

When the project is completed, students present their digital solution to an audience and complete the individual reflection sheet.

Instructions to students

With your group, create a digital product that helps or informs your school or community about an important issue. Your project must:

- be based on a real issue you've identified
- include planning using design thinking steps
- show you considered audience, privacy, time and resources
- use appropriate digital tools and terminology
- be tested, refined and presented clearly.

Be ready to explain:

- what issue you chose and why
- who your product is for
- what your product does and how it helps
- how your team planned, built and improved your work.

Marking key

Description	Marks
Purpose and audience	
Clearly addresses a real issue; product is engaging, message is very clear and well suited to chosen audience	3
Addresses an issue clearly and is mostly appropriate for the audience	2
Attempts to address an issue; message somewhat unclear or only partly suits audience	1
Subtotal	**/3**
Planning and project management	
Detailed and well-organised plan using design thinking; clear roles, timeline, and resource choices that show awareness of constraints	3
Adequate plan using design thinking; some clear roles and timeline; some consideration of constraints	2
Basic or incomplete plan; roles or timeline unclear; limited evidence of considering constraints	1
Subtotal	**/3**
Use of digital tools	
Product functions effectively; tools are used appropriately and skilfully; no major technical issues	4
Product mostly works as intended; minor technical issues	3
Some errors affect the clarity or functionality	2
Significant technical issues: product does not function as intended	1
Subtotal	**/4**
Visual/structural design	
Highly clear, logical layout and consistent design that makes content easy to understand	4
Mostly clear layout and design; generally easy to follow	3
Somewhat disorganised; elements missing or inconsistent	2
Layout is unclear or confusing; hard to interpret	1
Subtotal	**/4**
Revision and feedback	
Clear, thoughtful changes made after peer/teacher feedback; improvements are evident	4
Some improvements made based on feedback	3
Limited changes or use of feedback	2
Minimal or no evidence of using feedback	1
Subtotal	**/4**

Description	Marks
Evaluation and reflection	
Detailed and thoughtful reflection on process, decisions, strengths, challenges and areas for improvement	4
Adequate reflection with some insight into process and product	3
Brief or limited reflection	2
Minimal reflection or only superficial comments	1
Subtotal	**/4**
Total	**/22**