



Chadsgrove Curriculum Long Term Planning: Pioneers Pathway - Computing

Curriculum Intent

Chadsgrove's Computing curriculum is designed to equip pupils with the knowledge and skills to understand and engage with an increasingly digital world. Through meaningful and engaging experiences, pupils develop confidence in using technology, learn how digital systems work and begin to use computational thinking to solve problems.

Within the Pioneers Curriculum Pathway, the curriculum is based on the National Curriculum programmes of study and introduces pupils to the key areas of computing, including computer science, information technology and digital literacy. Learning is structured to ensure that pupils can access and engage with technology in ways that are purposeful and relevant, supporting the development of independence, communication and problem-solving skills.

Our intention is for pupils to develop their understanding through practical, hands-on experiences, including programming, creating digital content and exploring how technology is used in everyday life. By revisiting key concepts and building on prior learning, pupils strengthen their skills and confidence over time. Through this approach, we aim to foster enjoyment of Computing while supporting pupils to use technology safely, responsibly and effectively in the world around them.

Curriculum Implementation

In the Pioneers Curriculum Pathway, the National Curriculum is followed incorporating a thematic approach. Teachers will use National Curriculum Learning Outcomes and further differentiate these to create learning opportunities, based upon individual pupils' needs, as detailed in Medium Term Plans.

Lessons focus on developing the use of algorithms, programming and how technology can be used safely and purposefully. Pupils will also develop their knowledge of computer networks, internet services and the safe and purposeful use of the internet and technology. Skills learned are used to support data presentation.

Each lesson contains revision, analysis and problem-solving. Through the sequence of lessons, we intend to inspire pupils to develop a love of the digital world and see its place in their future. Cross-curricular links are also important in supporting other areas of learning. Lessons help pupils to build on prior knowledge at the same time as introducing new skills and challenges.

Each term, pupils Pioneers 1 and 2 take part in focused lessons alongside four sessions designed to consolidate their learning and deepen their understanding of equality and diversity. They will also follow the 'Festival of the Month' where appropriate. In Pioneers 3, pupils follow WJEC Entry Level Pathways units in ICT at Entry Levels 2 and 3.

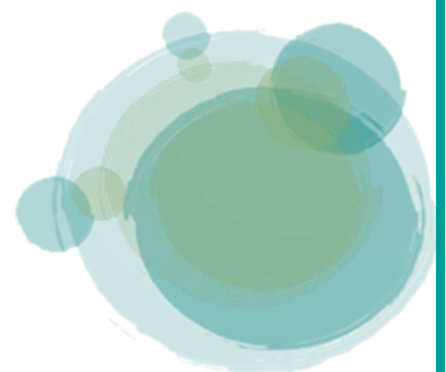
Embedding AI and Emerging Technologies:

The Computing curriculum now also introduces pupils to Artificial Intelligence (AI) in an age and ability appropriate way. Pupils will learn how AI is used in everyday life, from voice assistants and predictive text to image recognition, and consider how such technologies impact their digital world. This learning promotes curiosity, creativity and responsible use of emerging technologies, preparing pupils for a digital future that increasingly includes AI. Pupils will be aware of and explore selected AI tools under strict supervision, building understanding of how computers can appear to "learn" and support creative work.

AI awareness and safety will be embedded within all topics, reinforcing responsible use, online safety, and the importance of human guidance.

Cross Curricular Opportunities

- **Maths:** AI pattern spotting, number recognition apps and graph interpretation tools
- **English:** Use AI to generate story prompts, edit writing or illustrate texts
- **Enterprise:** Explore how AI is used in design and marketing (for example logo generation or product mock ups)
- **Life Skills / PfA:** Explore assistive AI technologies that improve accessibility, such as speech to text or predictive communication aids



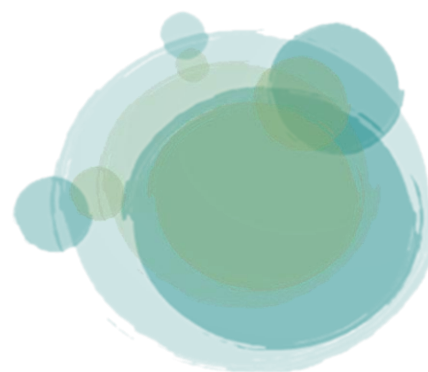
<u>Term</u>	<u>Autumn 2025</u>	<u>Spring 2026</u>	<u>Summer 2026</u>
<u>Topic</u>	People and Places	Amazing Animals	Out at Sea
	Online Safety <u>Key Skills</u> • Be able to tell an adult when something worrying or unexpected happens • Be kind to friends.	Images, Video and Animation <u>Key Skills</u> • Choose different painting tools to create effect • Use a painting app and explore the paint and brush tools • Use a stamp tool • Fill sections using fill tool • Take a photograph • With support, take moving images with a video camera • With support, play back captured still or moving images, becoming familiar with the control buttons, e.g., using play, stop and pause. • Examine objects using a visualiser or microscope	Music and Sound <u>Key Skills</u> • With support, record sounds and speech • Play sound games e.g. matching sounds to pictures • Be aware that computers and other devices can be used to record and play back sounds • Be aware that sound can be recorded on a computer or a sound device • Find ways to change your voice (tube, tin can, shouting to create an echo)
	<u>E-Safety/AI Awareness</u> Begin to recognise that computers can help combine pictures, voices and text to make a story come alive. Begin to understand that some story apps or talking books can speak automatically using a computer voice. Know that some computer voices sound real but are not a person, they are made by a program. Talk about how computers can choose pictures or words that fit the story, but people decide if they're right	<u>E-Safety/AI Awareness</u> Begin to understand that some devices and toys can sense what is happening and respond, like lights that turn on when it's dark, or sensors that stop a robot when it meets an obstacle. Recognise that these are examples of computers making simple decisions automatically. Begin to understand that more advanced devices can "learn" what to do by repeating or practising but people are always in charge. Know that all machines must be used safely and kindly.	<u>E-Safety/AI Awareness</u> Begin to understand that computers can help create or change pictures, sometimes automatically. Recognise that some pictures seen online or in apps might be made by a computer, not a person. Talk about how it's important to be honest about whether a picture is real or computer-made.

<u>Term</u>	<u>Autumn 2026</u>	<u>Spring 2027</u>	<u>Summer 2027</u>
<u>Topic</u>	<u>All About Me</u>	<u>Let's Build</u>	<u>Out and About</u>
	Data Handling – Making Decisions <u>Key Skills</u> • Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen. • Make choices about the buttons/icons to press, touch or click on when using simple software/hardware. • With support, collect information by taking photographs or collecting objects.	Modelling, Simulation and programming <u>Key Skills</u> • Make choices about the buttons and icons pressed, touched or clicked on • Begin to understand that computers can represent real or imaginary situations • Be aware that different choices made using a program on the computer can produce different outcomes	Control and Monitoring <u>Key Skills</u> • Respond to simple instructions to press a sequence of buttons on a programmable robot. • Use a variety of electronic toys in play situations, e.g., dance mats, Bee-Bots, and remote control toys, • Explore simple games on screen using appropriate access devices • Be aware that the computer keyboard can be used to control objects on screen • Manage a device by correctly closing websites or apps and safely turning on and off • Play on a touch screen game and use computers/keyboards/mouse in role play
	<u>E-Safety/AI Awareness</u> Begin to recognise that computers can help people spot patterns or make choices by sorting and counting information. Talk about how computers might “guess” or “suggest” things based on what they have learned before (e.g. a shopping website suggesting similar items). Begin to understand that people still need to check and decide if the computer’s choice makes sense.	<u>E-Safety/AI Awareness</u> Begin to understand that computers can show pretend worlds (e.g. games or simulations) to help us test ideas safely. Recognise that some games and programs change or react depending on what we do, a simple idea of how computers can “learn” from choices. Begin to understand that computers follow rules, but newer programs can improve or change automatically when given more information.	<u>E-Safety/AI Awareness</u> Know that some toys and devices can sense or respond to what people do, like robots that stop when they hit something or follow a line. Recognise that smart devices (e.g. lights, speakers, phones) can listen or notice things and respond automatically. Begin to understand that people create and control these devices, and should always use them safely and kindly.

<u>Term</u>	<u>Autumn 2027</u>	<u>Spring 2028</u>	<u>Summer 2028</u>
<u>Topic</u>	Wonderful World	Perfect Plants	Journeys
	Digital Research <u>Key Skills</u> • Recognise technology that is used at home and in school • Know that ICT sources e.g. the learning platform and Internet can be used to find things out. • Know that information can be in different forms, e.g. video, pictures and sound, as well as text. <u>E-Safety/AI Awareness</u> Begin to understand that some websites and devices use computer programs to help find information quickly (e.g. search engines or smart assistants). Recognise that computers sometimes choose what to show first, but it might not always be the best or correct answer. Know that adults can help check if information is true or safe.	Text and Multimedia <u>Key Skills</u> • Use a keyboard in play writing • Move objects on a screen. • Input commands using a mouse to control a cursor and use the left click to select options OR use finger control to interact with a tablet (double tap, swipe) • Input commands using the space bar, backspace, enter, letters and numbers on a keyboard on any device, including on a tablet <u>E-Safety/AI Awareness</u> Begin to understand that computers can predict or suggest words or pictures to help when writing or creating. Recognise that spell checkers and autocorrect are examples of computers “learning” from what people type. Know that we should always check suggestions because computers sometimes get things wrong.	Communicating and Collaborating <u>Key Skills</u> • Explore simple web-based communication tools with adult support e.g. the learning platform • Participate in simple video conferencing and webcam activities with adult help <u>E-Safety/AI Awareness</u> Begin to understand that some online communication tools use computer programs to translate, filter or connect people safely. Recognise that some messages or voices online may come from a computer (e.g. automated responses or chatbots). Know that pupils should only communicate with people they know and trust, and always tell an adult if something doesn't feel right.
Pioneers 1 National Curriculum Content	• design, write and debug programs • use sequence, selection, and repetition in programs • use logical reasoning • understand computer networks including the internet • use search technologies effectively • select, use and combine a variety of software • use technology safely		

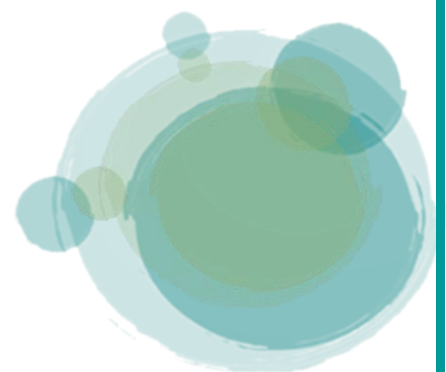
<u>Term</u>	<u>Autumn 2025</u>	<u>Spring 2026</u>	<u>Summer 2026</u>
<u>Topic</u>	Africa	Our Community/Britain	Celebrations/Food and Drink
	Painting <u>Key Skills</u> • Paint with different colours • Paint with different brushes • Create shapes • Format text • Resize text and images • Save their paintings in their folder • Fill an area with a colour • Undo and redo • Add text <u>E-Safety/AI Awareness</u> Recognise that some paint tools can suggest colours or fill areas automatically. Understand that computers can adjust or enhance artwork based on user choices. Explore, under supervision, an AI-assisted art or photo tool to see how computers can change images creatively.	Word Processing <u>Key Skills</u> • Type with two hands • Use shift, space and enter correctly • Use undo and redo • Make text bold, italic or underline • Have some knowledge of the location of letters and symbols on the keyboard • Select text in different ways • Save their work in their folder • Edit text using backspace, delete and the arrow keys • Format the font. • Select single words <u>E-Safety/AI Awareness</u> Recognise that computers can check spelling and suggest words or corrections. Understand that some programs learn writing styles to offer better suggestions. Explore, under supervision, how predictive text or grammar tools work and discuss when suggestions are helpful or incorrect.	Using The Internet <u>Key Skills</u> • Search using the words "for kids" • Follow a web link • Locate their own blog • Understand how to blog safely and responsibly • Recognise common websites to which search results are linked • Upload photos to a blog • Identify search results that will give some useful information • Know where to find the address of a link • Log in and post a blog or comments <u>E-Safety/AI Awareness</u> Recognise that search engines use AI to choose and rank results. Understand that not all information online is accurate or human-written. Explore, under supervision, how different search words affect results and discuss how to spot reliable sources.

<u>Term</u>	<u>Autumn 2026</u>	<u>Spring 2027</u>	<u>Summer 2027</u>
<u>Topic</u>	Victorian Britain	The Human Body	Asia
	Computer Skills <u>Key Skills</u> - Click and drag with a mouse or trackpad - Switch on and shutdown a computer - Launch an application by double clicking it - Confidently double click with a mouse or trackpad - Save work <u>E-Safety/AI Awareness</u> Recognise that computers <i>can respond and adapt</i> to user actions. Understand that some systems <i>learn</i> what we use most. Explore, under supervision, AI tools that support use, such as voice commands or speech recognition.	Computer Art <u>Key Skills</u> - Access an appropriate program for achieving a specific task; - Switch between program tools to produce different techniques; - Alter the formatting of a tool to adjust the colour or size. - Select appropriate tools with confidence and independence. - Recreate a piece of art using a computer program; - Manipulate shapes and objects to recreate an art style <u>E-Safety/AI Awareness</u> Know that some art tools can suggest colours, filters or layouts. Understand that computers can copy or recreate artistic styles. Explore, under supervision, an AI art tool to compare computer-made and pupil-made designs.	Online Safety <u>Key Skills</u> - Open a web browser - Recall some of the SMART rules for Internet safety - Know who to tell if someone online asks for personal information; - Apply their knowledge of online safety to help others make safe choices - Make links between the online and offline world - Recognise which personal information they should keep safe from strangers <u>E-Safety/AI Awareness</u> Recognise that some websites recommend or filter content automatically. Understand that not all online information is real or trustworthy. Explore, under supervision, how search results or suggestions change and discuss why.

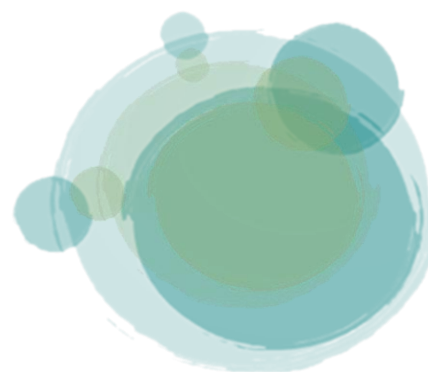


<u>Term</u>	<u>Autumn 2027</u>	<u>Spring 2028</u>	<u>Summer 2028</u>
<u>Topic</u>	How Things Move and Work	Mysteries and Time Travel	Rivers and Coasts
	Programming with Scratch Jnr <u>Key Skills</u> • Open the ScratchJr app and start a new project • Add new characters and backgrounds • Use blocks for movement in different directions • Create short sets of sequenced instructions • Use a repeat block for a section of instructions and specified number of times • Predict the behaviour of a character, based on a sequence of instructions • Edit the colours and other features of characters or sprites; • Create longer sequences of more complex instructions • Use different end blocks, including repeat forever • Change the size of characters to grow or shrink • Hide and show characters with an instruction block • Program two or more characters with instructions at the same time <u>E-Safety/AI Awareness</u> Recognise that computers follow instructions exactly as given. Understand that repeating actions helps computers complete tasks efficiently. Explore, under supervision, how AI tools can predict or automate sequences, comparing them to manually written code.	Programming Toys <u>Key Skills</u> • Create step-by-step instructions using pictures • Write and follow detailed step-by-step instructions • Direct a Bee-Bot (or similar programmable toy) to a toy • Program a Bee-Bot (or similar programmable toy), one instruction at a time, using the arrow buttons • See how a product changes when they change the instructions • Evaluate and improve their sequence (debug) • Say what an algorithm is • Say why it is important to be precise when writing an algorithm • Program a Bee-Bot (or similar programmable toy) using the arrow buttons • Start their programming sequence again if they need to <u>E-Safety/AI Awareness</u> Understand that computers and robots follow programmed commands step by step. Recognise that small changes in instructions can change outcomes. Explore, under supervision, how smart devices can make simple decisions, such as sensing obstacles or following a path.	Using and Applying <u>Key Skills</u> • Turn on a computer and open an application • Type letters and symbols, including use of the shift key • Format text in different ways (bold, italic, underline) • Draw different shapes using paint software • Use a brush in a paint application and change the size and colour • Move, resize, minimise and restore windows • Select text and change the size, type or colour • Use Undo and Redo effectively • Edit text using the arrow keys and delete or backspace buttons • Create a particular image using shapes or brush tools • Click, double-click and drag objects; • Save and open files • Position shapes correctly <u>E-Safety/AI Awareness</u> Recognise that computers can suggest edits, layouts or corrections automatically. Understand that some applications learn preferences to make work easier. Explore, under supervision, AI-assisted features, such as spell check, autocorrect or auto-formatting.

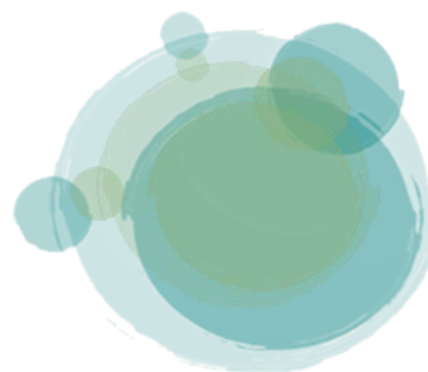
Pioneers 2 National Curriculum Content	• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
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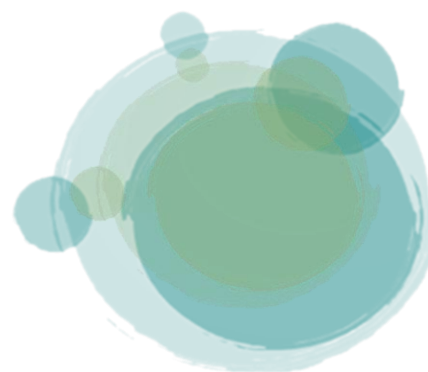
<u>Term</u>	<u>Autumn 2025</u>	<u>Spring 2026</u>	<u>Summer 2026</u>
	WJEC: IT User Fundamentals • use IT for straightforward activities • respond appropriately to common IT errors and problems • review use of IT	WJEC: Presentation Software • Input and combine text and other information within presentation slides • Use presentation software tools to structure, edit and format slides • Prepare slides for presentation	ICT Project Pupils will select a project based on one of the units studied in the autumn or spring term. • apply key concepts from the chosen unit to develop a comprehensive ICT project • showcase their understanding and practical skills
	<u>E-Safety/AI Awareness</u> Recognise that some systems use AI to detect and correct common errors automatically. Understand that AI features can suggest solutions or improve efficiency when using software. Explore, under supervision, how AI tools can assist with troubleshooting or reviewing work, such as spell check or automatic file recovery.	<u>E-Safety/AI Awareness</u> Recognise that presentation software can suggest layouts, colours or image placements automatically. Understand that AI tools can enhance accessibility, for example by creating subtitles or improving design contrast. Explore, under supervision, how AI can support presentation design, such as using “Designer” or auto-formatting tools.	<u>E-Safety/AI Awareness</u> Recognise that AI can support research, writing and design tasks across different ICT areas. Understand the importance of checking and verifying computer-generated information. Explore, under supervision, suitable AI tools to support project work, such as generating ideas, improving layouts or checking accuracy.



<u>Term</u>	<u>Autumn 2026</u>	<u>Spring 2027</u>	<u>Summer 2027</u>
	WJEC: Online Basics • Use an online IT system to meet needs • Search for and use internet-based information • Use email software tools and techniques to compose and send messages.	WJEC: Audio and Video Software • Use audio and/or video hardware and software to capture sequences • Use audio and/or video hardware and software tools to edit sequences • Play and present audio and/or video sequences	ICT Project Pupils will select a project based on one of the units studied in the autumn or spring term. • apply key concepts from the chosen unit to develop a comprehensive ICT project • showcase their understanding and practical skills
	<u>E-Safety/AI Awareness</u> Recognise that search engines and websites use AI to filter and rank information. Understand that some emails or messages may be computer-generated and not from real people. Explore, under supervision, how AI tools influence search results or suggest contacts and content, discussing how to stay safe and make informed choices.	<u>E-Safety/AI Awareness</u> Recognise that some editing tools use AI to enhance sound or image quality automatically. Understand that AI can add effects, captions or remove background noise in recordings. Explore, under supervision, how AI features can support editing, such as auto-trim or smart enhancement tools.	<u>E-Safety/AI Awareness</u> Recognise that AI can support research, writing and design tasks across different ICT areas. Understand the importance of checking and verifying computer-generated information. Explore, under supervision, suitable AI tools to support project work, such as generating ideas, improving layouts or checking accuracy.



<u>Term</u>	<u>Autumn 2027</u>	<u>Spring 2028</u>	<u>Summer 2028</u>
	WJEC: Imaging Software • use basic imaging software tools to create and edit images for a specific purpose. • import, position and manipulate images using standard features such as crop, resize and rotate. • apply simple effects or adjustments to enhance image quality and impact.	WJEC: Using Word Processing Software • Enter, edit and combine text and other information accurately within word processing documents. • Use word processing software tools to structure information, format and present documents.	ICT Project Pupils will select a project based on one of the units studied in the autumn or spring term. • apply key concepts from the chosen unit to develop a comprehensive ICT project • showcase their understanding and practical skills
	<u>E-Safety/AI Awareness</u> Recognise that some image tools use AI to enhance or correct photos automatically. Understand that AI can suggest filters, remove backgrounds or adjust colours to improve images. Explore, under supervision, how AI features can support editing, such as auto-enhance or smart selection tools.	<u>E-Safety/AI Awareness</u> Recognise that word processors can check spelling, grammar and suggest wording automatically. Understand that AI tools can improve layout or readability of text. Explore, under supervision, how AI-assisted features such as predictive text, smart compose or editor tools can support writing tasks.	<u>E-Safety/AI Awareness</u> Recognise that AI can support research, writing and design tasks across different ICT areas. Understand the importance of checking and verifying computer-generated information. Explore, under supervision, suitable AI tools to support project work, such as generating ideas, improving layouts or checking accuracy.



Curriculum Impact

In Pioneers 1 and 2, Chadsgrove P Steps are used to measure pupils' progress in Computing. Assessment and progress is monitored through ongoing formative assessment. Evidence of learning and progress can be found in pupils' work folders, which may be stored digitally as appropriate. These include teacher marking and annotations, annotated photographs of pupils engaged in activities where appropriate and Assessment Trackers showing progress towards individual targets. Pupils are also encouraged to reflect on their own learning and, where appropriate, use RAG-rated self-evaluation to consider their progress and achievements.

Pupils' progress towards their P Steps is recorded using our digital assessment system, SOLAR, which breaks learning into small developmental steps and allows staff to track pupil progress over time. Assessment information is reviewed regularly and recorded termly on the whole school tracking system to ensure progress is monitored and appropriate support or interventions can be implemented where needed.

Pupils work towards individual targets linked to their EHCP outcomes. These targets are incorporated into teachers' Medium Term Plans and reviewed regularly to ensure continued development of knowledge, understanding and skills.

Pioneers 3 pupils follow 'Computing' units as part of the accredited WJEC Pathways qualification and will be assessed according to the criteria set out in this course. Pupils work towards either Entry 2 or Entry 3 assessment criteria, which develops their key computing skills.

As well as the Learning Outcomes outlined in this Long Term Plan, pupils will also be working towards their personalised targets, relating to their EHCP outcomes. Pupils' targets are regularly reviewed and monitored to ensure continued progression of both knowledge and skills.

Through the curriculum as a whole, pupils develop subject knowledge and skills alongside communication, independence and methods of recording their learning, including typing or the use of AAC where appropriate. Learning experiences aim to be engaging, practical and accessible so that pupils can apply their understanding, communicate their ideas and build foundations for future learning both within school and beyond.

Pupils will see the digital world as part of their world, extending beyond school, and understand that they have choices to make. They will be confident and respectful digital citizens going on to lead happy and healthy digital lives. Pupils will also develop an awareness of Artificial Intelligence and its role in modern technology. They will be able to identify examples of AI, understand its benefits and risks, and use AI powered tools safely and creatively. This ensures our pupils are not only competent ICT users but are prepared for a future shaped by intelligent systems.

