Chadsgrove Curriculum Long Term Planning: Computing

Curriculum Intent

At Chadsgrove, the Computing Long Term Plan offers a structured sequence of lessons, helping Teachers to ensure that they have covered the skills required to meet the aims of the National Curriculum and accredited courses. The content allows for a broad, deep understanding of computing and how it links to pupils' lives. It offers a range of opportunities for consolidation, challenge and variety. This allows pupils to apply the fundamental principles and concepts of computer science. They develop analytical problem-solving skills and learn to evaluate and apply information technology. It also enables them to become responsible, competent, confident and creative users of information technology.

In the Navigators and Pioneers Curriculum Pathways, 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.

For pupils on the Navigators Curriculum Pathway:
The focus is on developing the use of algorithms, programming and how technology can be used safely and purposefully.

For pupils on the Pioneers Curriculum Pathway:
Lessons still focus on algorithms, programming and coding but in a more complex way and for different purposes. Pupils will also develop their knowledge of computer networks, internet services and the safe and purposeful use of the internet and technology.
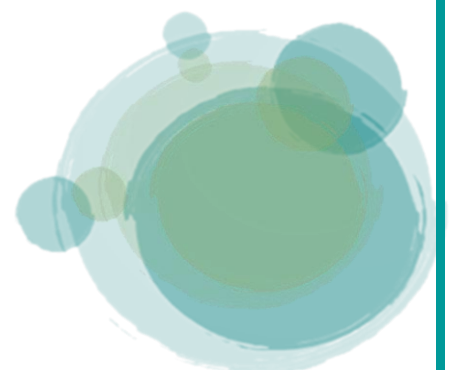
Skills learned through both pathways are used to support data presentation.

In Pioneers 2, pupils follow WJEC Entry Level Pathways units in ICT at Entry Levels 2 and 3.
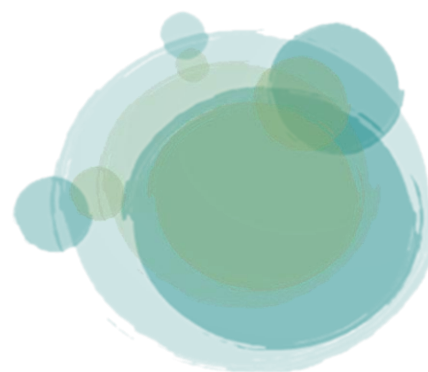
Curriculum Implementation

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 in Navigators 3 and 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.
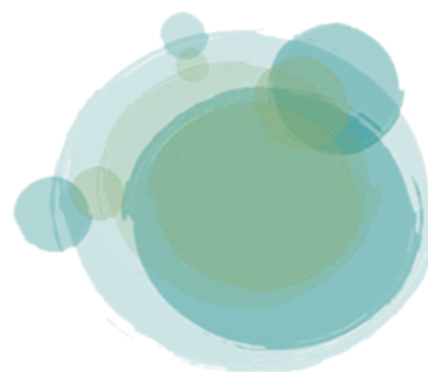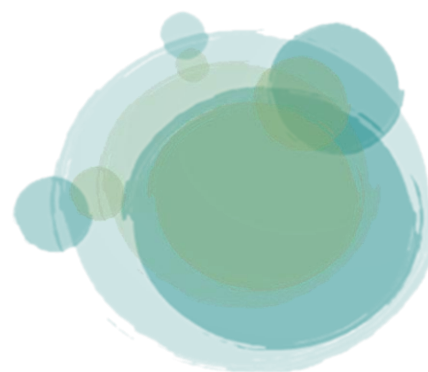
Navigators Curriculum Pathway

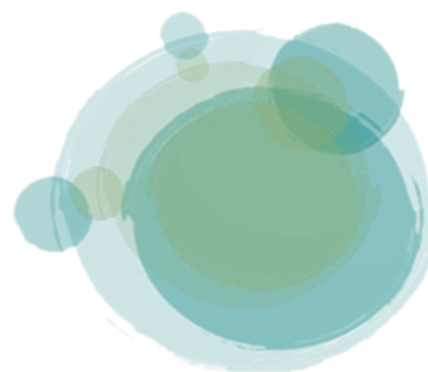| Navigators 1	Autumn	Spring	Summer
2025-26	**Online Safety** Key Skills - Be able to tell an adult when something worrying or unexpected happens - Be kind to friends.	**Images, Video and Animation** Key Skills - Choose different painting tools to create effect - Use a painting app and explore the paint 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** Key Skills - 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)
	Cross-Curricular Links People and Places	Cross-Curricular Links Amazing Animals	Cross-Curricular Links Out at Sea

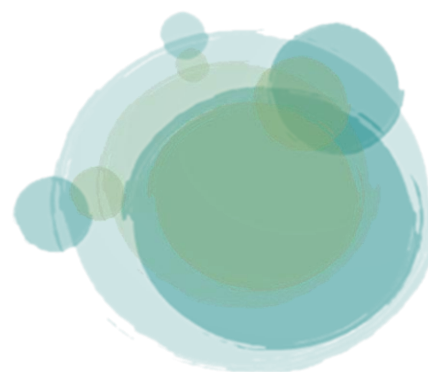| Navigators 1	Autumn	Spring	Summer
2026-27	**Data Handling – Making Decisions** Key Skills • Begin to sort, classify or group various objects progressing from practical activities to the use of ICT, e.g., practically sorting fruit into colours, types or shapes, and then on-screen. • Make choices about 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** Key Skills • 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** Key Skills • 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
	Cross-Curricular Links All About Me	Cross-Curricular Links Let's Build	Cross-Curricular Links Out and About

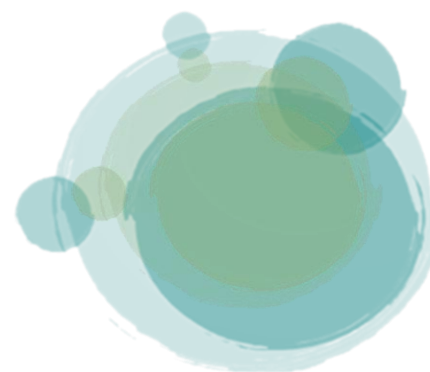| Navigators 1	Autumn	Spring	Summer
2027-28	**Digital Research** Key Skills • Recognise technology that is used at home and in school • Know that ICT sources e.g. the learning platform and Internet can be used to find things out. • Know that information can be in different forms, e.g. video, pictures and sound, as well as text.	**Text and Multimedia** Key Skills • 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	**Communicating and Collaborating** Key Skills • 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
	Cross-Curricular Links Wonderful World	Cross-Curricular Links Perfect Plants	Cross-Curricular Links Journeys
National Curriculum KS2	• 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		

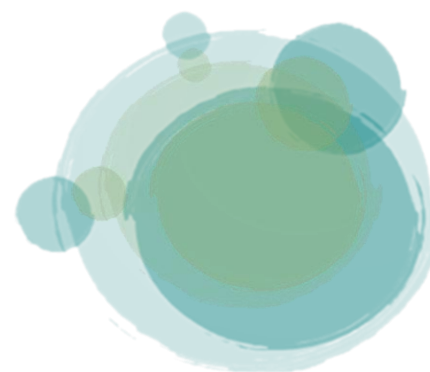| Navigators 2	Autumn	Spring	Summer
2025-26	**Talking Books** Key Skills • Make decisions about the stories and what is to be included • Take photographs using a digital camera • Record sounds using the computer sound recorder with help • Assemble pictures, sounds and clip art to create pages with accompanying text, where appropriate Cross-Curricular Links Marvellous Me	**Control and Monitoring** Key Skills • Respond to simple instructions to operate a device requiring multiple instructions • Explore 'what happens if…' • Explore toys that simulate control devices with the intention of finding out how they work e.g. traffic light, till, microwave, scanner • Understand what commands are needed to control different devices, e.g., make a noise to activate a toy; press a button to make it work • Give commands/ instructions e.g. forward, backwards, go, stop, when using simple software/ hardware Cross-Curricular Links Rise of the Robots	**Making Pictures** Key Skills • Experience creating representative drawings using an appropriate access device • Widen their experience of painting tools • Have opportunities to communicate about pictures and compare them to real life • Experience making decisions about when their work is complete and print it out Cross-Curricular Links Water

Navigators 2	Autumn	Spring	Summer
2026-27	**Digital Research** Key Skills • Understand what a computer is and the different uses of computers i.e. learning, communicating, finding information, playing games etc. • Begin to use icon based hyperlinks and navigation buttons • Select and use technology for particular purposes.	**Images, Video and Animation** Key Skills • Be aware that still objects can be animated using the computer • Take a photograph and use it in an app • Change tools such as brush size and colour • Review experiences by observing recordings of play, visits and activities • Interact and explore their environment using multimedia equipment, including digital cameras, video cameras, microscopes, webcams and visualisers to capture still and moving images. • Be aware that still and moving digital images can be transferred to the computer, saved and reviewed.	**Communicating and Collaborating** Key Skills • Be aware of the use of different forms of electronic communication via Teacher-led activities and free play, e.g. sending an email to another class. • Be aware that there is a range of ICT tools for communicating, e.g., webcams, text and email
	Cross-Curricular Links Our Environment	Cross-Curricular Links Jungle Beat	Cross-Curricular Links Around the World

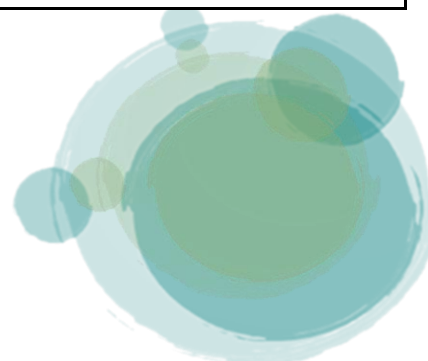| Navigators 2	Autumn	Spring	Summer
2027-28	**Data Handling – Making Decisions** Key Skills • Sort physical objects, take a picture and discuss what I have done. • With support, produce simple pictograms • Identify a chart. • Present simple data on a digital device.	**Modelling, Simulation and programming** Key Skills • Be aware that computers can make imaginary things happen on-screen, which may not happen in everyday life • Use simple software to make something happen • Use software to represent real life situations/environments	**Music and Sound** Key Skills • Choose pre-recorded sounds in a piece of software • Be aware that a range of ICT software and equipment can be used to select, control and change sounds • Record sounds with different resources • Record sounds/voices in storytelling and explanations
	Cross-Curricular Links Our bodies and minds	Cross-Curricular Links Clever Construction	Cross-Curricular Links Pirates
National Curriculum KS2	• 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		

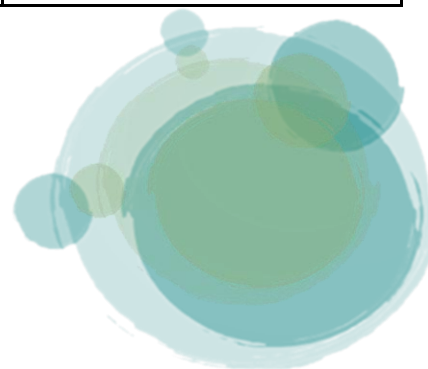| Navigators 3	Autumn	Spring	Summer
2025-26	**Design** • Change the colour and pattern of elements. • Position and rotate objects on a design. • Position objects in relation to each other. • Resize, rotate, flip and arrange objects behind/in front of each other.	**Text and Images** • Change the background colour of a page. • Add, resize and position images (pictures) on a page. • Type and position text on a page, if possible using capital letters and punctuation. • Label pictures with text. • Use word-banks for writing sentences about pictures.	**Comic Creation** • Add, resize and organise colour or picture backgrounds. • Add, resize, organise characters/object to different panels. • Add narration using text and direct speech using speech bubbles.
	Cross-Curricular Links People	Cross-Curricular Links Recycling	Cross-Curricular Links Festivals and Food
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

Navigators 3	Autumn	Spring	Summer
2026-27	**Music Creation** • Create a rhythm using a pattern of beats. • Create digital sounds using patterns and shapes. • Create a simple melody using patterns and adjust tempo.	**Data Handling** • Understand what data is and collect it as a tally. • Use software to label a pictogram and add data to each column. • Edit a table with correct titles and numbers. • Use software to create a bar chart/pie chart/line chart suitable for the data. • Interpret a pictogram/bar chart/line chart.	**Programming** • Place instructions into the correct order (sequence) to make something work. • Use direction arrows to move an on-screen object (character/sprite) to achieve an objective. • Predict a route and sequence direction commands (algorithm) to achieve an objective. Correct the errors if necessary (debug). • Predict a route and sequence distance commands to program an on-screen object to achieve an objective. • Predict and sequence movement and pen commands to program the drawing of different 2D shapes. • Sequence code blocks, including movements and execute (start program) blocks to write a program to achieve an objective.
	Cross-Curricular Links Victorian Britain	Cross-Curricular Links Life Cycles of Animals and Plants	Cross-Curricular Links Seasons/ The Weather
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

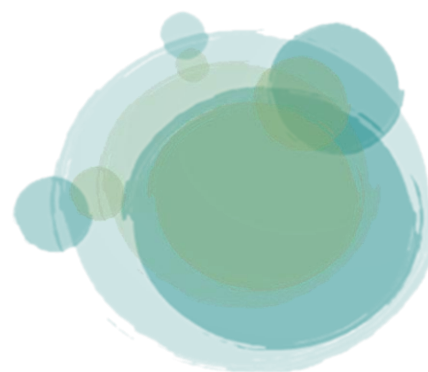| Navigators 3	Autumn	Spring	Summer
2027-28	**E Safety** • Understand what the internet is and how people use it. • Understand what personal information is and why we keep personal information private. • Why do websites want personal information. • Identify when and where to go for help when concerned.	**Mouse and Keyboard Skills** • Move the mouse or trackpad and left click to select an object. • Drag and drop with mouse or trackpad to move objects around the screen. • Find letters or numbers on a keyboard. • Begin touch typing with home row keys.	**Digital Art** • Change the colour of individual pixels to accurately re-create basic artwork. • Make changes where required. • Change the colour of individual pixels to accurately re-create detailed artwork. • Use zoom controls to help fill small shapes.
	Cross-Curricular Links Digital Photography	Cross-Curricular Links Change	Cross-Curricular Links Water
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also- March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**
National Curriculum KS3	• design, use and evaluate computational abstractions • understand several key algorithms • use two or more programming languages • understand simple Boolean logic • hardware and software components • understand how instructions are stored and executed • undertake creative projects that involve selecting, using, and combining multiple applications • create, re-use, revise and re-purpose digital artefacts for a given audience • use technology safely		

Pioneers Curriculum Pathway

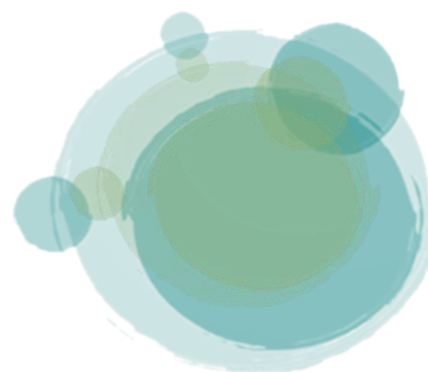| Pioneers 1	Autumn	Spring	Summer
2025-26	**Painting** Key Skills • Paint with different colours • Paint with different brushes • Create shapes • Format text • Resize text and images • Save their paintings in their folder • Fill an area with a colour • Undo and redo • Add text	**Word Processing** Key Skills • 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	**Using The Internet** Key Skills • 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
	Cross-Curricular Links Africa	Cross-Curricular Links Our Community/Britain	Cross-Curricular Links Celebrations/Food and Drink
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

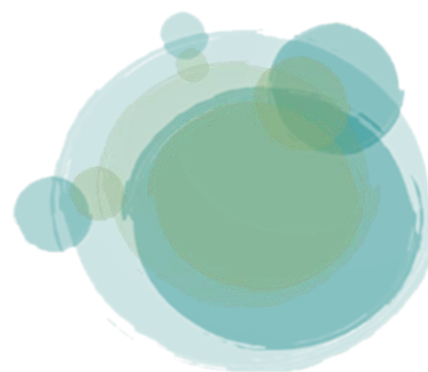| Pioneers 1	Autumn	Spring	Summer
2026-27	**Computer Skills** Key Skills • Click and drag with a mouse or trackpad • Switch on and shutdown a computer • Launch an application by double clicking it • Confidently double click with a mouse or trackpad • Save work	**Computer Art** Key Skills • Access an 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	**Online Safety** Key Skills • 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
	Cross-Curricular Links Victorian Britain	Cross-Curricular Links The Human Body	Cross-Curricular Links Asia
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

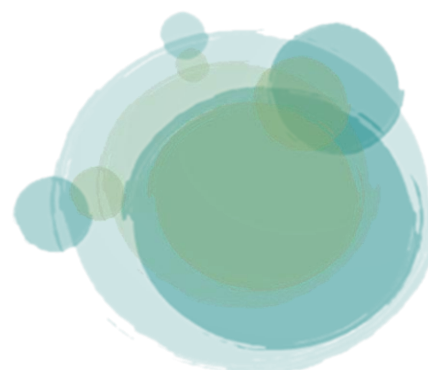| Pioneers 1	Autumn	Spring	Summer
2027-28	**Programming with Scratch Jnr** Key Skills • Open the ScratchJr app and start a new project • Add new characters and backgrounds • Use blocks for movement in different directions • Create short sets of sequenced instructions • Use a repeat block for a section 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	**Programming Toys** Key Skills • 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	**Using and Applying** Key Skills • 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
	Cross-Curricular Links How Things Move and Work	Cross-Curricular Links Mysteries and Time Travel	Cross-Curricular Links Rivers and Coasts
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

National Curriculum KS3	• design, use and evaluate computational abstractions • understand several key algorithms • use two or more programming languages • understand simple Boolean logic • hardware and software components • understand how instructions are stored and executed • undertake creative projects that involve selecting, using, and combining multiple applications • create, re-use, revise and re-purpose digital artefacts for a given audience • use technology safely

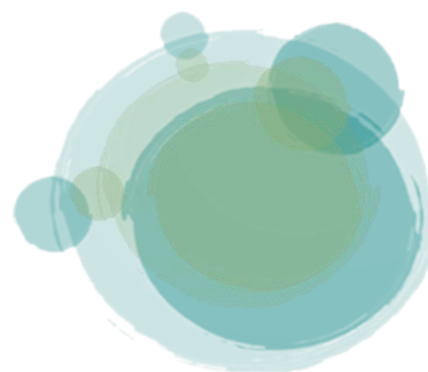| Pioneers 2	Autumn	Spring	Summer
2025-26	**WJEC: IT User Fundamentals** • use IT for straightforward activities • respond appropriately to common IT errors and problems • review use of IT	**WJEC: Presentation Software** • Input and combine text and other information within presentation slides • Use 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
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

Pioneers 2	Autumn	Spring	Summer
2026-27	**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
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

Pioneers 2	Autumn	Spring	Summer
2027-28	**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
	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar Also - March – International Women's Day (Women in the IT industry) **E-Safety must continue to be embedded throughout**	E&D Lessons See Festival of the Month calendar **E-Safety must continue to be embedded throughout**

Curriculum Impact

Learning in Computing will be enjoyed across the school. Teachers will have high expectations and quality evidence will be presented in a variety of forms. Pupils will use digital and technological vocabulary accurately, alongside a progression in their technical skills. They will be confident in using a range of hardware and software and will produce high-quality purposeful products. 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.

Assessment is conducted via SOLAR, our digital assessment tool, utilising Chadsgrove P Steps. This structured approach ensures that each pupil's progress is tracked and evaluated against tailored educational milestones. All data from SOLAR is then entered termly on to a whole school spreadsheet. From there it can be seen how much progress pupils are making and interventions can be put into place if pupils are not making the progress they are expected to.

Meanwhile, pupils in Pioneers 2 follow an accredited WJEC course and will be assessed according to the specific criteria set out by WJEC, ensuring that pupils meet the necessary qualifications and learning objectives.

Pupils will also be working on individual personal targets (relating to their EHCP outcomes). Pupils' IEP targets relevant to their Computing development (taken from their EHCPs) are clearly linked to the pupils' work and this is detailed in Teachers' Medium Term Plans. Pupils' targets are regularly reviewed and monitored to ensure continued progression of both knowledge and skills.

Evidence of impact will be found in digital work folders, which will demonstrate pupil progress through marking and annotation from Teachers and annotated photographs of children whilst completing activities (if appropriate).