



## Computing Long Term Curriculum Plan 2025/26

Throughout our curriculum planning we remain focused on delivering a 21<sup>st</sup> century curriculum designed to ensure pupils are well prepared for the future.

	Subject	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Year 7 Topic Headings	<u>Using Computers safely 5 – E-Safety, Health and Safety</u>	<u>Hardware &amp; Software 3 / Presentation 3 – Advanced Presentations on Hardware and Software</u>	<u>Image editing 1 –Pixlr</u>	<u>Audio 2 - Podcasting</u>	<u>Animation 3 - Pivot</u>	<u>Programming 4</u>
	Content (skills and knowledge)	<p><b>Overview:</b> Pupils will recap the guidelines for being safe online, and how to use technology safely and responsibly. They will learn how to report concerns and how to keep their information safe by creating safe passwords.</p> <p>Pupils will investigate how we can make sure that the information they find online is reliable and trustworthy.</p> <p>Pupils will look at how to work safely in a computer suite and how to manage their files and folders.</p> <p><b>Link to National Curriculum:</b> Using technology safely</p>	<p><b>Overview:</b> Pupils will learn about hardware and software, and the components that make up a computer system - how they communicate with one another and with other systems. Pupils will create presentations about this, incorporating taught advanced features of PowerPoint.</p> <p>Advanced presentation skills taught: Hyperlinks and Hotspots. Master Pages Layout &amp; white space</p> <p><b>Link to National Curriculum:</b> Hardware &amp; Software Components in a Computer System and how they communicate with one another</p>	<p><b>Overview:</b> Pupils will investigate how images can be manipulated using computers.</p> <p>Pupils will learn a number of simple image editing techniques to create their own manipulated images. Through a project they will design and repurpose manipulated graphics for a given purpose. During the unit they will investigate different image file types and how they are different.</p> <p><b>Link to National Curriculum:</b> Create. Reuse, revise and re-purpose digital artefacts for a given audience with attention to trustworthiness, design and usability.</p>	<p><b>Overview:</b> Pupils will learn the skills to create an audio podcast.</p> <p>Pupils will Investigate ways they can capture audio, using a voice recorder. They will learn skills to import/export audio, how to use software to manipulate and change it.</p> <p>Pupils will create a script for their own podcast. They will use software to edit and build a podcast using audio clips that they have captured.</p> <p><b>Link to National Curriculum:</b> Creative projects that involve combining the use of different applications across different devices.</p>	<p><b>Overview:</b> Creating 2D stop frame animations using digital methods, incorporating content created on other applications and devices.</p> <p>Pupils will learn about stop frame animation and how it can be achieved using computers. They will investigate techniques to make 2D animations feel more 3D.</p> <p>Pupils will plan and create their own stop frame animation to meet a given purpose. As part of this they will look at storyboards and why they are useful in the planning process.</p> <p><b>Link to National Curriculum:</b> Creative projects that involve combining the use</p>	<p><b>Overview:</b> Pupils will further develop their programming and computing knowledge using code.org.</p> <p>Pupils will further learn about the sequencing and repetition of instructions, the use of conditionals, methods and user input in programming and how to do simple debugging.</p> <p><b>Link to National Curriculum:</b> Design and develop modular programs</p>

						of different applications across different devices	
Year 8 Topic Headings	<u>Using Computers safely 6</u>	<u>Algorithms 3 - Thinking like a computer scientist 1</u>	<u>Programming 6 - Scratch</u>	<u>Video Editing</u>	<u>Data 4 – Spreadsheets</u>	<u>Hardware and Software 3 - Computer Instructions, Binary and Logic</u>	
Content (skills and knowledge)	<p><b>Overview:</b> Pupils will further learn about how to stay safe online and how to report concerns. They will look at how to work safely in a computer environment, learning about posture and health and safety issues in a computer environment.</p> <p>Pupils will investigate the use of email and how to do so productively and correctly, including the use of email etiquette. They will look at potential issues around emails and electronic communication and how to use safely.</p> <p>Finally, they will learn how to recognise and deal with cyberbullying Who to talk to if you suspect someone is being cyberbullied.</p> <p><b>Link to National Curriculum:</b> Using technology safely respectfully, responsibly and securely, recognise inappropriate content, contact and conduct and know how to report concerns.</p>	<p><b>Overview:</b> Pupils will look at abstraction and decomposing problems into smaller ones to solve easier and why these are important for problem solving in programming. They will design, use and evaluate computational abstractions that model real world problems and physical systems. They will learn how to recognise patterns in order to streamline algorithms.</p> <p><b>Link to National Curriculum:</b> Algorithms that reflect computational thinking</p>	<p><b>Overview:</b> Pupils will learn how to program in the block programming program Scratch. Pupils will use variables, sequences, iteration and conditionals in programming tasks.</p> <p>Through an end of unit project, pupils will design a game and create it using Scratch.</p> <p><b>Link to National Curriculum:</b> Programming languages</p>	<p><b>Overview:</b> Pupils will learn about how to make different audio and visual content and how to combine these elements into a video sequence, editing them to meet a given purpose and audience.</p> <p>Pupils will be taught how to use different methods of film capture (still, video, screen capture) and audio capture using different devices and software. They will be taught how to sequence content captured and edit using Adobe Premier Rush.</p> <p>Pupils will be tasked with creating a short promotional video about the different ways that ICT is used within school, which will see them using the skills taught.</p> <p><b>Link to National Curriculum:</b> Undertake creative projects that involve the selecting, using and combining multiple applications across a range of devices</p>	<p><b>Overview:</b> This unit builds on previous knowledge of data and learning about how spreadsheets can be used to manipulate and present different types of data.</p> <p>Pupils will cover the collection of data, how to enter basic data into spreadsheets and what type of data can be used. They will look at formatting and manipulating data to make it more presentable.</p> <p>Pupils will cover modelling, using functions and formulas to perform calculations on collected data. They will look at analysing data and its presentation.</p> <p><b>Link to National Curriculum:</b> Creative project including the collecting and analysing data</p>	<p><b>Overview:</b> Pupils will learn how different types of hardware and software work together to create a computer system. They will learn how instructions are stored and executed with a computer system through specific BBC Micro:Bit projects.</p> <p>Pupils will be introduced to binary and taught how to carry out simple operations on binary numbers using BBC Micro:Bits. They will learn how data (text, sounds and pictures) can be represented and changed digitally, in the form of binary digits. Through the use of BBC Micro:Bits pupils will learn some simple Boolean logic used in circuits.</p> <p><b>Link to National Curriculum:</b> Understand simple Boolean Logic Understand how instructions are stored and executed Binary numbers</p>	

Badgers Topic Headings	<u>Using Computers Safely</u>	<u>What is a computer?</u>	<u>Being Creative with a Computer</u>	<u>Data Handling</u>	<u>Algorithms and Thinking like a Computer Scientist</u>	<u>Programming</u>
Content (skills and knowledge)	<p><b>Overview:</b> All pupils will recap the guidelines for being safe online, and how to use technology safely and responsibly. They will learn how to report concerns and how to keep their information safe by creating safe passwords.</p> <p>Pupils will look at how to work safely in a computer suite and how to manage their files and folders.</p> <p>Pupils will investigate how we can make sure that the information they find online is reliable and trustworthy.</p> <p>All pupils will learn about AI's impact upon our lives and specifically how images and information we are presented with can be shaped by it.</p> <p><b>Link to National Curriculum:</b> Using technology safely</p>	<p><b>Overview:</b> Pupils will learn about hardware and software, and the components that make up a computer system - how they communicate with one another and with other systems.</p> <p>In Year 7 pupils will look at what networks are and the differences between a LAN and a WAN. They will learn that the internet is essentially a big computer network sharing resources and that the World Wide Web is only one part of what the internet is.</p> <p>In Year 8, pupils will investigate what inputs, output and storage devices are. They will learn about the positives and negatives of these.</p> <p>Throughout the unit, pupils will be practicing and reinforcing their Office application skills (Word, PowerPoint etc.) by making relevant pieces of work.</p> <p><b>Link to National Curriculum:</b> Hardware &amp; Software Components in a Computer System and</p>	<p><b>Overview:</b> Pupils will investigate how images can be manipulated using computers. Additionally they will learn how Artificial Intelligence can do this.</p> <p>Pupils will learn a number of simple image editing techniques to create their own manipulated images.</p> <p>Pupils in Year 7 will be introduced to simple image editing software in Pixlr Express. In Year 8 they will learn the more advanced features of Pixlr Editor.</p> <p>Through different project they will design and repurpose manipulated graphics for a given purpose (print media and multimedia combining the use of other software).</p> <p><b>Link to National Curriculum:</b> Create. Reuse, revise and re-purpose digital artefacts for a given audience with attention to trustworthiness, design and usability.</p>	<p>Overview: Overview: Building upon previous knowledge, pupils will learn about collecting and processing data in spreadsheets, and then how it can be presented.</p> <p>Pupils in Year 7 will learn that about data and data types. How to structure it in a spreadsheet and do calculations with it using simple formulae. Finally, they will learn how to present this through graphs and charts.</p> <p>Year 8 will learn how spreadsheets can be used to answer mathematical question and for modelling different real-life situations.</p> <p><b>Strand: Information Technology</b></p>	<p><b>Overview:</b> Pupils will build upon the knowledge of algorithms they learnt in Squirrels and earlier class groups.</p> <p>Pupils in Year 7 will learn (be reminded) that an algorithm is a set of instructions for performing a task and is one of the first stages of designing a computer program. Pupils will be introduced to loops, and conditionals.</p> <p>Pupils in Year 8 will further learn about the 3 other cornerstones of computer science; abstraction, decomposition, and pattern recognition.</p> <p><b>Link to National Curriculum: Computer Science</b></p>	<p>Overview: Pupils will learn about the key themes of computer programming and will apply what they have learnt from the Algorithms and Thinking like a computer scientist unit. Pupils will follow a linear progression of programming themes.</p> <p>Through gamification of their learning, Years 7 and Year 8 will learn programming themes through using code.org completing sequential courses online.</p> <p><b>Link to National Curriculum: Computer Science</b></p>

			how they communicate with one another				
	Topic Heading	<u>Using Computers safely 7</u>	<u>Presentation 4 - Web design</u>	<u>Algorithms 3 - Thinking like a computer scientist 2</u>	<u>Programming 7- Python</u>	<u>WJEC IT Entry Pathways Presentation Software</u>	<u>WJEC IT Entry Pathways Database Software</u>
	Year 9 Content (skills and knowledge)	<p>Overview: Pupils will look at how we use online services to collaborate (instant messaging, chat, forums, wikis, email etc.). They will learn how to stay safe in these environments including protecting their online identity and privacy. Additionally, pupils will be taught how to use new technologies for new ways of working – Cloud storage and sharing files (OneDrive), using Microsoft TEAMS for communication and collaboration. They will be taught how to use safely, respectfully and responsibly.</p> <p>Pupils will develop their knowledge of using Emails, consolidating these skills and learning more advanced ones like using the address book, sending to groups and organising your inbox using rules. Throughout it will be highlighted how to stay safe and use this respectfully, responsibly and securely.</p>	<p>Overview: Pupils will learn about how website development, the use of HTML code. They will learn some CSS code used for style and layout of webpages, and some basic JavaScript code to program the behaviour of webpages.</p> <p>After learning about these, pupils will be tasked with creating a website using code (for the more able) or through a WYSIWYG ("What You See Is What You Get") editor. In planning the website, they will create design templates and storyboards in that process.</p> <p>Link to National Curriculum: Programming language</p>	<p>Overview: Pupils will be introduced to several key algorithms that reflect computational thinking and compare alternative algorithms for the same real-world systems.</p> <p>Pupils will learn how to graphically represent algorithms through the use of flowcharts. Through these they will look at iteration, decisions and processes.</p> <p>Link to National Curriculum: Algorithms that reflect computational thinking</p>	<p>Overview: Pupils will be introduced to the textual programming language Python. They will learn more about variables, loops, if statements, functions and arrays.</p> <p>Pupils will undertake a number of projects that will reinforce these learnt areas.</p> <p>Link to National Curriculum: Programming languages</p>	<p>Overview: This unit is designed to enable the pupils to use a range of presentation software tools and techniques to produce several presentations on given topics.</p> <p>Pupils will learn about copyright legislation and how to include content from the internet in making their presentations correctly.</p> <p>Link to National Curriculum: Develop their capability, creativity and knowledge in information technology</p>	<p>Overview: Pupils will learn how they can now manipulate and use data with Databases and why and when this is a better use compared to spreadsheets.</p> <p>Through a set project, pupils will design a data collection method, collect the intended data and create a database to hold this. In their database they will create tables, forms, reports and queries to analyse and question the data.</p> <p>Link to National Curriculum: Creative project, combining multiple applications including the collecting and analysing of data</p>

	Link to National Curriculum: Understanding a range of ways to use technology safely respectfully, responsibly and securely				
Oaks Topic Heading	WJEC IT Entry Pathways Using Email (Entry Level)	WJEC IT Entry Pathways Completion of Earlier Units for those in Year 11 & Presentation Unit for those in Year 9 & 10 (Entry Level)	WJEC IT Entry Pathways Completion of Earlier Units for those in Year 11 & Word Processing Unit for those in Year 9 & 10 (Entry Level)		
Content (skills and knowledge)	<p>Overview: This unit is designed to enable the learner to understand and use a range of basic email software tools to send, receive and store messages for straightforward or routine activities.</p> <p><b>Link to National Curriculum:</b> Develop their capability, creativity and knowledge in information technology</p>	<p>Overview of Presentation Unit: This unit is designed to enable the pupils to use a range of presentation software tools and techniques to produce several presentations on given topics.</p> <p>Pupils will learn about copyright legislation and how to include content from the internet in making their presentations correctly.</p> <p>Link to National Curriculum: Develop their capability, creativity and knowledge in information technology</p>	<p>Overview of Word Processing Unit: This unit is designed to enable pupils to use a range of basic word processing software tools and techniques to produce appropriate, straightforward or routine documents.</p> <p>Link to National Curriculum: Develop their capability, creativity and knowledge in information technology</p>		
Year 10 Topic Heading	WJEC IT Entry Pathways Improving Productivity Using IT (Level 1)	WJEC IT Entry Pathways Spreadsheet Software	WJEC IT Entry Pathways Completion of Earlier Units		
Entry Level and Level 1 Content (skills and knowledge)	<p>Overview: This unit is designed to enable pupils to plan the use of an IT system for a purpose and use an IT system to complete a planned task. They will review their own use of IT during the Unit.</p> <p>Pupils will plan the use of appropriate systems and software to meet requirements of a task. They will identify legal and other constraints affecting the use of the IT system and software.</p> <p>Pupils will use IT systems and software to complete their solution for a given task, using preset routines (wizards) to improve productivity. They will review the outcome of the completed task and identify the strengths of the IT systems and software used for this and identify ways to improve the outcomes of the completed tasks.</p> <p><b>Link to National Curriculum:</b></p>	<p>Overview of Spreadsheet Unit: Pupils will begin the Unit by learning how to use spreadsheet software, constructing formulae, producing graphs and charts.</p> <p>For the unit pupils will designing and make spreadsheets for a given purposes – after conducting a school survey of pupil’s opinions, for the school tuck shops sales and investigating profits of this by using different suppliers.</p> <p><b>Link to National Curriculum:</b> Develop their capability, creativity and knowledge in information technology</p>			

		<p><b>Link to National Curriculum:</b> Develop and apply analytic, problem-solving, design and computational thinking.</p>		
	Topic Heading	<p>WJEC IT Entry Pathways Improving Productivity Using IT (Level 1)</p>	<p>WJEC IT Entry Pathways Completion of Earlier Units or / &amp; Internet Safety for IT Users (Level 1)</p>	<p>WJEC IT Entry Pathways Completion of Earlier Units</p>
	Year 11 Entry Level and Level 1 Content (skills and knowledge)	<p>Overview: This unit is designed to enable the learner to plan and review their use of predefined or commonly used IT tools for activities that are straightforward or routine. As a result of reviewing their work, they will be able to identify and use automated methods or alternative ways of working to improve productivity.</p> <p>Pupils will plan how to carry out a given task using IT to achieve the required purpose and outcome. They will need to identify methods, skills and resources required to complete the task successfully and select IT systems and software applications as appropriate for the purpose.</p> <p>Pupils will use IT systems and software to complete their solution for a given task, using preset routines (wizards) to improve productivity. They will review the outcome of the completed task making sure they meet the requirements of the task and identify the strengths of the IT systems and software used for this. Pupils will need to evaluate whether the IT tools selected were appropriate for the task and purpose and identify further ways to improve the outcomes of the completed tasks.</p> <p><b>Link to National Curriculum:</b> Develop and apply analytic, problem-solving, design and computational thinking.</p>	<p>Overview: This unit is designed to enable pupils to identify day-to-day security risks and safeguard against day to day ones, this includes using simple methods to protect software and personal data. Pupils look at the laws and guidelines that affect the use of IT</p> <p>Pupils will start the unit by understanding the risks that can exist when using the Internet, including safety and privacy of personal data, data security and system performance and integrity. They will learn about how to safeguard themselves and others when working online, taking precautions to maintain data security. Pupils will learn about legal constraints, guidelines and procedures which apply when working online.</p> <p><b>Link to National Curriculum:</b> Understanding how changes in technology affect safety, including how to protect their online privacy and identity.</p>	
	Enrichment Opportunities	<p>Real school problem solutions that could be implemented</p>		