

# ICT at Gwinear.



*'This is a new age of discovery, and ICT is the gateway'* (Douglas Adams)

## Our Vision Statement.

We believe that advances in ICT have fundamentally changed the way that we live and that it is essential that we enable children to become digitally literate. We are aware that much of the technology they will one day use is not yet developed and that we need to grow together as learners in an ever- changing field. We aim to equip children with the key skills to use a wide range of existing devices so that they are able to acquire, organise, store, manipulate, interpret, communicate and present data in a range of ways. We will respond to new developments in technology and explicitly teach ICT skills whilst using opportunities to apply them across the curriculum and enhance learning in all subjects. Throughout our use of ICT children will be taught to consider the dangers it poses alongside the benefits and develop a critical approach in how to use it responsibly and to best effect.

## Gwinear School Concepts and Skills Progression

We believe that

YEAR 5/6 Curriculum Content	Technology in our Lives (Across all Areas of Learning)
	Understand the importance of technology for shaping the way we live in the world
	Describe different parts of a computing device & how it connects to the Internet.
	Connect a computing device to a keyboard, mouse or printer
	Identify different parts of the Internet
	Identify appropriate forms of online communication for different audiences.
	Choose appropriate tools for communication and collaboration and use them responsibly
	Use search engines as part of an effective research strategy
	Describe how search results are selected & ranked
	Talk about the different elements on web pages
	Find out who the information presented on a webpage belongs to and cross check with other sources e.g. books.
	Understand how data can be used and shared on the internet
	Describe different services provided by the Internet & how information moves around the Internet

	<p><b>Multimedia</b></p> <p>Select and identify an appropriate ICT or online tool to create and share ideas.</p> <p>Explore the effects of multimedia (photos, video, sound) in a presentation or video and show how they can be modified</p> <p>Discuss audience, atmosphere and structure of a presentation or video</p> <p>Develop skills using transitions and hyperlinks to enhance the structure of presentations</p> <p>Collect information and media from a range of sources (considering copyright issues) into a presentation for a specific audience</p> <p>Use a wide range of effects in art programs and online tools, discussing the choices made and their effectiveness</p> <p>Use online tools to create and share presentations and films</p>	<p><b>Programming</b></p> <p>Explore procedures using repeat commands to improve a program.</p> <p>Use 'if' and 'then' commands to select an action.</p> <p>Refine procedures to improve efficiency.</p> <p>Evaluate the effectiveness and efficiency of my algorithm.</p> <p>Use logical reasoning to detect and correct errors in algorithms and programs.</p> <p>Recognise and use a variable to increase the programming possibilities.</p> <p>Explore a computer model to control a physical system.</p> <p>Decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</p> <p>Change inputs on a model to achieve different outputs.</p> <p>Use different inputs to control a device or onscreen action and predict what will happen.</p> <p>Explain and program each of the steps in my algorithm.</p>	<p><b>Data Handling</b></p> <p>Collect and record information using spreadsheets and databases.</p> <p>Present data in an appropriate way.</p> <p>Search a database using different operators to refine my search.</p> <p>Plan the process needed to investigate the world around me.</p> <p>Interpret the data I collect and present it in an appropriate way.</p> <p>Use the skills developed to interrogate a database.</p> <p>Discuss the mistakes in data and suggest how it could be checked.</p> <p>Be able to check the data I collect for accuracy and plausibility.</p>	<p><b>E Safety</b></p> <p>Agree sensible e-safety rules for the classroom.</p> <p>Discuss their own personal use of the internet and the choices they make.</p> <p>Discuss and understand how to protect devices from virus threats.</p>
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	<p>Know how to use text and video editing tools in programs to refine their work</p> <p>Store presentations and videos online where they can be accessed by themselves and shared with others</p> <p>Use sound, images, text, transitions, hyperlinks and HTML code effectively in presentations</p> <p>Evaluate the effectiveness of their own work and the work of others</p>			
<b>YEAR 3/4 Curriculum Content</b>	<p><b>Technology in our Lives (Across all Areas of Learning)</b></p> <p>Understand that computer technology has developed rapidly and is continuing to do so</p> <p>Understand how technology has changed the way we live and work</p> <p>Talk about the parts of a computer</p> <p>Understand how devices are linked on the school network and how to access</p> <p>Save work on the school network, on the Internet and on individual devices</p> <p>Use appropriate tools to communicate and collaborate on-line</p> <p>Frame questions &amp; identify key words to search for information on the Internet</p> <p>Use simple search tools and find appropriate websites</p> <p>Talk about the owner of information online and consider reliability of information &amp; ways it may influence you</p> <p>Know ways to communicate with others online.</p> <p>Further develop vocabulary in relation to computing and technology</p>			

	<p><b>Multimedia</b></p> <p>Be confident in creating &amp; modifying text &amp; presentation documents to achieve a specific purpose</p> <p>Explore the use of video, animation, &amp; green screening for a specific audience</p> <p>Use art programs &amp; online tools to modify photos for a specific purpose using a range of effects, including brush sizes, repeats and reflections</p> <p>Use ICT tools to create music phrases for a specific purpose</p> <p>Explore how multimedia can create atmosphere &amp; appeal to different audiences</p> <p>Use an appropriate tool to share and collaborate my work online.</p> <p>Use a keyboard effectively, including the use of keyboard shortcuts eg SELECT/DELETE &amp; COPY AND PASTE</p>	<p><b>Programming</b></p> <p>Achieve a specific outcome by putting commands into a specific sequence.</p> <p>Test my program and recognise when you need to debug it.</p> <p>Be able to use an efficient procedure to simplify a program.</p> <p>Describe the algorithm I will need for a simple task.</p> <p>Use an algorithm to sequence more complex programming into order.</p> <p>Recognise that using algorithms will also help solve problems in other areas of learning such as Maths, Science and DT.</p> <p>Break an open-ended problem into smaller parts.</p> <p>Detect problems in an algorithm which could result in unsuccessful programming.</p> <p>Be able to use a sensor to detect a change which can select an action within my program.</p> <p>Use a variety of tools to create a program.</p>	<p><b>Data Handling</b></p> <p>Be able to search a ready made database to answer questions.</p> <p>Add to a database.</p> <p>Organise data in different ways.</p> <p>Collect data and identify where it could be inaccurate.</p> <p>Plan and create a database to answer questions.</p> <p>Be able to make a branching database.</p> <p>Use a data logger to monitor changes and talk about the information collected.</p> <p>Choose the best ways to present data to friends.</p> <p>Use a data logger to record and share readings with friends.</p>	<p><b>E Safety</b></p> <p>Agree sensible e-safety rules for the classroom.</p> <p>Choose a secure password for age-appropriate websites.</p> <p>Discuss what actions could be taken if they are uncomfortable or upset online.</p> <p>Talk about the games they enjoy playing and what good choices are when playing games</p> <p>Eg content, screen time.</p> <p>Use a class blog to share information and talk about who can see it and how to communicate safely and respectfully.</p>
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	<p>Understand how to use spellchecker to write and review my work</p> <p>Use font sizes &amp; effects such as bullet points appropriately</p> <p>Look at their own, and a friend's work &amp; provide feedback that is constructive &amp; specific</p>			
<p><b>YEAR 1/2 Curriculum Content</b></p>	<p><b>Technology in our Lives</b></p> <p>Identify some of the benefits of using technology</p> <p>Recognise uses of technology in their homes and in their community</p> <p>Understand that there are online tools that can help them create and communicate</p> <p>Begin to understand what the Internet is and the purposes that it is used for</p> <p>Begin to understand there are a variety of sources of information and begin to recognise the differences</p> <p>Understand the different types of content on websites and that some things may not be true or accurate</p> <p>Use key vocabulary to demonstrate knowledge and understanding e.g. search engine, image, keyboard</p>			
	<p><b>Multimedia</b></p> <p>Know a range of different programs for presenting work e.g. Office programs and multimedia Apps on tablets.</p> <p>Create own documents, adding text and images</p> <p>Use index fingers (left and right hand) on a keyboard to build words &amp; sentences</p>	<p><b>Programming</b></p> <p>Physically follow and give each other forward, backward &amp; turn (right-angle) instructions</p> <p>Explore outcomes when buttons are pressed in sequences on a robot.</p> <p>Identify and articulate an algorithm to achieve a purpose.</p>	<p><b>Data Handling</b></p> <p>Take and save photographs, video and record sound to capture learning.</p> <p>Discuss the different ways to use technology to collect information, including a camera, microscope or sound recorder.</p> <p>Begin to explore and understand a branching database.</p>	<p><b>E Safety</b></p> <p>Be able to understand and explain why it is important to keep my personal information and password private.</p> <p>Be able to follow simple e-safety rules to keep myself safe online.</p> <p>Discuss why it is important to be kind and polite online and in real life.</p>

	<p>Know when and how to use the SPACE RETURN keys. Use SHIFT &amp; CAPS LOCK to enter capital letters. Use DELETE &amp; BACKSPACE buttons to correct text. Create sentences, Amend text and save regularly. Use an increasing variety of tools and effects in paint programs and talk about their choices. Create sounds and simple music phrases using ICT tools Use a video or stills camera to record an activity Use selected programs to produce simple visual and auditory presentation</p>	<p>Begin to use software to create movement &amp; patterns on a screen. Plan and enter a sequence of instructions to achieve an algorithm. Begin to identify an algorithm to achieve a specific purpose. Use the word debug when correcting any mistakes when making a program. Be able to watch a program and debug any problems. Predict what will happen for a short sequence of instructions. Program a robot or software to do a particular task. Discuss the similarities and differences between floor robots and logo on screen.</p>	<p>Sort different kinds of information and present it to others. Make and save a graph or chart using the data collected. Add information to a pictogram and be able to discuss the outcomes. Investigate different types of digital data. Understand what kind of information to use to help investigate a question.</p>	<p>Understand that if information is put online then it leaves a digital footprint or trail. Explore how email can be used to communicate with real people within their school and families. Understand and discuss why you should go online for a short amount of time.</p>
<p><b>EYFS Curriculum Content</b></p>	<p><b>Technology in our Lives (Across all Areas of Learning)</b> Recognise purposes for using technology in school and at home Understand that things they create belong to them and can be shared with others using technology Recognise that they can use the internet to play and learn Begin to operate simple equipment</p>			
	<p><b>Multimedia</b> Use a mouse and interactive screen to</p>	<p><b>Programming</b> Use simple software to make things happen</p>	<p><b>Data Handling</b></p>	<p><b>E Safety</b></p>

	rearrange objects and pictures on a screen Recognise text, images and sound when using ICT Use a camera or sound recorder to collect photos or sound Use paint programs to create pictures Begin to use a keyboard Use age appropriate websites or programs	Press buttons on a floor robot and talk about the movements Independently operate simple equipment. Be able to make choices about the buttons and icons I press, touch on click on.	Collect information as photos or sound files.	Be able to ask a grown up when I want to use the internet. Tell a grown up if something unexpected or worrying happens when I am using the internet. Be able to discuss the amount of time I spend using a computer/tablet/game device.
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