



## COMPUTING CURRICULUM COVERAGE

# Computing at Westgarth

## What does Computing look like at Westgarth?

At Westgarth Primary School our intent is to deliver a broad and balanced, progressive, knowledge-based curriculum to prepare the children for their next stages and to develop their level of independence, resilience and respect, respect for themselves, others and the world.

Computing at Westgarth is split into two distinct areas; the use of appropriate technology and the teaching our pupils to be responsible digital citizens in a global context. Both of these areas are embedded into the wider curriculum - the use of ICT supports learning across all areas and how children behave when using ICT is something which is built up over time and re-enforced in 'real' situations. We have built up strong relationships with our parents which have allowed us to resource hardware and work closely with parents to guide our pupils.

## Why is Computing important?

Technology has become a part of everyday life for the children, families, and staff at Westgarth. Our intent, as a school community, is to equip our children with the knowledge, skills and understanding of computing that is necessary for them to successfully navigate through an ever-changing digital world. Our Westgarth Computing curriculum is designed to allow children to learn about technology and its uses, develop computing skills, and apply what they have learnt in all areas of the curriculum and daily life. To train them in being able to adapt to new ideas and use technology for their needs is key to developing problem solvers in the future.

## What do we learn in Computing?

Learning is split into Computer Science, Information Technology and Digital Literacy. There is an ever-present E-safety focus which is taught explicitly as well as being embedded across the curriculum. At Westgarth we use the Purple Mash scheme of work as a primary source of resources. The scheme has an exciting range of quality activities and provides a focused framework to teach. Formative assessment allows a personalised delivery of this scheme.

## What events take place as part of our Computing curriculum?

From Summer Term 2024, we will have E-safety Champions in Year 6 in order to add pupil voice to the message of staying safe online. Use of ICT is embedded at Westgarth and forms part of parent's assemblies, our Christmas Market and most of our celebration events.

## What do our children think?

*'I like to play maths games on my iPad to help with my times tables'*  
**Year 3**

*'Using the internet helps with research'*  
**Year 5**

*'I can use technology to speak to my friends when I'm not in school'*  
**Year 6**

## Computing EYFS

Within the new EYFS curriculum the 'Technology' strand has been removed from 'Understanding the World' and has not been replaced with any updated guidance. However, computing and technology are still vitally important subjects to teach to Foundation children. Teaching computing within the curriculum ensures that children enter Year 1 with a strong foundation of knowledge. Computing lessons in the EYFS also ensure that children develop listening skills, problem-solving abilities and thoughtful questioning — as well as improving subject skills across the seven areas of learning. We live in a technological world and there is no escape from the reality that technology is integrated into the lives of young children. Just as we ensure the children in our care are ready for the adult world by teaching them maths and literacy, we should also make sure that they are fluent in computer literacy and all-important esafety.

Development matters	ELG	How this is achieved in EYFS	By the end of EYFS children will know...	Computing in KS1
<p><b>Reception:</b> Personal, Social and Emotional Development:</p> <ul style="list-style-type: none"> <li>Show resilience and perseverance in the face of a challenge.</li> <li>Know and talk about the different factors that support their overall health and wellbeing:</li> <li>sensible amounts of 'screen time'</li> </ul> <p>Physical Development:</p> <ul style="list-style-type: none"> <li>Develop their small motor skills so that they can use a range of tools competently, safely and confidently.</li> </ul> <p>Expressive Arts and Design:</p> <ul style="list-style-type: none"> <li>Explore, use and refine a variety of artistic effects to express their ideas and feelings.</li> </ul>	<p><b>Personal, Social and Emotional Development:</b></p> <p><b>Managing self:</b></p> <ul style="list-style-type: none"> <li>Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.</li> <li>Explain the reasons for rules, know right from wrong and try to behave accordingly</li> </ul> <p><b>Expressive Arts and Design: Creating with Materials:</b></p> <ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	<p>Continuous Provision - available throughout the day for both focussed and self-chosen learning - computer and tablets/cameras for recording learning. A range of technology will be explored continuously throughout the year for the children to access, both independently and with an adult.</p> <ul style="list-style-type: none"> <li>Tablets</li> <li>Remote control toys</li> <li>Battery operated toys</li> <li>Beebots</li> <li>Interactive white boards - Phonics Play / Top marks / Google Earth / Digi map.</li> <li>iPads</li> </ul>	<p>Knowledge:</p> <p>Personal, Social and Emotional Development</p> <ul style="list-style-type: none"> <li>I know to wait a short amount of time for something I want e.g.: a computer loading / an App to work.</li> <li>I know how to complete a familiar task independently and with support will try new things. E.g.: a computer programme / Beebots.</li> <li>I know to select tools and resources that I need to complete a task of my own choosing.</li> <li>I know how to be safe online.</li> <li>I know that a password is secret.</li> </ul> <p>Physical Development</p>	<ul style="list-style-type: none"> <li>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>Create and debug simple programs</li> <li>Use logical reasoning to predict the behaviour of simple programs</li> <li>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>Recognise common uses of information technology beyond school</li> </ul>

	<p><b>Understanding the World: Past and Present:</b></p> <ul style="list-style-type: none"> <li>• Talk about the lives of people around them and their roles in society.</li> <li>• Know some differences and similarities between things in the past and now, drawing on their experiences.</li> </ul> <p><b>People, Culture and Communities:</b></p> <ul style="list-style-type: none"> <li>• Describe their immediate environment using knowledge from observation, discussion, texts, maps.</li> </ul>	<ul style="list-style-type: none"> <li>• Purple Mash (mini mash) - drawing, sorting, information gathering.</li> <li>• exploring old typewriters / computers / mechanical toys.</li> </ul> <p><b>Purple Mash</b></p> <ul style="list-style-type: none"> <li>• Let the children use the activities alongside the 'real' activity being carried out in the classroom or outside area.</li> <li>• Provide opportunities to talk to the children about what they have found in the natural world and what they are creating using the computer.</li> </ul>	<ul style="list-style-type: none"> <li>• I know how to use an iPad or tablet appropriately.</li> <li>• I know how to use my fingers on a touch screen, and control a mouse/touchpad on a computer.</li> </ul> <p>Understanding the World</p> <ul style="list-style-type: none"> <li>• I know how to use a camera i.e.: on an iPad.</li> <li>• I know how to work a simple programmable toy.</li> <li>• I can select and use technology for particular purposes.</li> <li>• I know how technology is used in my own home.</li> <li>• I know that technology has changed since my adults were young.</li> </ul> <p>Expressive Art and Design</p> <ul style="list-style-type: none"> <li>• I know how to safely use a range of technology for a purpose.</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>
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## Computing: Year 1

Digital Literacy		Computer Science		Information Technology	
Online Safety	Technology outside of School	Coding	Grouping and Sorting	Pictograms	Spreadsheets
<ul style="list-style-type: none"> <li>• To know how to log in safely and understand why that is important.</li> <li>• To know the importance of logging out when they have finished.</li> <li>• To know how to save work to the My Work area and understand that this is private space.</li> <li>• To know how to find saved work in the Online Work area.</li> </ul>	<ul style="list-style-type: none"> <li>• To record and understand examples of where technology is used in the local community.</li> </ul>	<ul style="list-style-type: none"> <li>• To understand what instructions are.</li> <li>• To predict what will happen when instructions are followed.</li> <li>• To understand that computer programs work by following instructions called code.</li> <li>• To use code to make a computer program.</li> </ul>	<ul style="list-style-type: none"> <li>• To sort items using a range of criteria.</li> </ul>	<ul style="list-style-type: none"> <li>• To understand that data can be represented in picture format.</li> <li>• To contribute to a class pictogram.</li> <li>• To use a pictogram to record the results of an experiment.</li> </ul>	<ul style="list-style-type: none"> <li>• To understand what a spreadsheet looks like.</li> <li>• To be able to navigate around a spread sheet and enter data.</li> </ul>
<p><b>Vocab:</b> Login, log out, password, Private, saving, filename, shared folders</p>	<p><b>Vocab:</b> Technology, computer</p>	<p><b>Vocab:</b> Instructions, algorithm, code, programmer, coding, software, code blocks, object, action</p>	<p><b>Vocab:</b> sort, criteria, describe, more than, less than, equal</p>	<p><b>Vocab:</b> data, Pictogram, title, record results, compare, totals, visual</p>	<p><b>Vocab:</b> Spreadsheet, data, row, column, cell, delete</p>

## Computing: Year 2

Digital Literacy		Computer Science	Information Technology	
Online Safety	Effective searching	Coding	Presenting ideas	Spreadsheets
<ul style="list-style-type: none"> <li>• To know that Email is a form of communication</li> <li>• To know how we can talk to others when they are not there in front of us.</li> <li>• To know that information put online leaves a digital footprint or trail and identify the ways to keep personal data secure</li> </ul>	<ul style="list-style-type: none"> <li>• To understand the terminology associated with the Internet and searching.</li> <li>• To gain a better understanding of searching the Internet.</li> </ul>	<ul style="list-style-type: none"> <li>• To know and explain that an algorithm is a set of instructions and describe one they have made</li> <li>• To know that algorithms follow a sequence.</li> <li>• To know that for the computer to make something happen, it needs to follow clear instructions.</li> <li>• To know how to create a computer program using an algorithm.</li> <li>• To know what debugging means.</li> </ul>	<ul style="list-style-type: none"> <li>• To know that a story can be presented in different ways.</li> <li>• To know how to make a fact file on a non-fiction topic.</li> <li>• To know how to make a presentation to the class.</li> </ul>	<ul style="list-style-type: none"> <li>• To know how to pose questions, collect data and generate charts and graphs.</li> <li>• To know how to add and edit data in a table layout.</li> </ul>
<p><b>Vocab:</b> email, attachment, reply, personal information, private information, digital footprint, protection, identifying, secure</p>	<p><b>Vocab:</b> Internet, World Wide Web, network, device, web page, browser, website, domain, web address, URL, search engine</p>	<p><b>Vocab:</b> instruction, algorithm, event, object, action, command, scene, background, properties, scale, click events, collision detection, predict, bug, debugging, test</p>	<p><b>Vocab:</b> e-book, mind map, node, fiction, non-fiction, fact file, presentation</p>	<p><b>Vocab:</b> question, survey, data, table, block graph, label</p>

## Computing: Year 3

Digital Literacy		Computer Science	Information Technology	
Online Safety	Email	Coding	Touch typing	Spreadsheets
<ul style="list-style-type: none"> <li>• To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away.</li> <li>• To consider if what can be read on websites is always true.</li> <li>• To learn about the meaning of age restrictions symbols on digital media and devices and why they exist.</li> </ul>	<ul style="list-style-type: none"> <li>• To learn how to use email safely.</li> <li>• To open and respond to an email to someone from an address book.</li> </ul>	<ul style="list-style-type: none"> <li>• To review previous coding knowledge.</li> <li>• To use coding knowledge to create a range of programs.</li> <li>• To understand how to use the repeat command.</li> <li>• To understand the importance of nesting.</li> <li>• To understand that there are different types of timers.</li> </ul>	<ul style="list-style-type: none"> <li>• To know typing terminology.</li> <li>• To know the correct way to sit at the keyboard.</li> <li>• To know how to use the home, top and bottom row keys.</li> </ul>	<ul style="list-style-type: none"> <li>• To add and edit data in a table layout.</li> <li>• To add and edit data in a table layout.</li> </ul>
<p><b>Vocab:</b> Login, log out, password, Private, saving</p>	<p><b>Vocab:</b> Email, compose, address book, inbox</p>	<p><b>Vocab:</b> algorithm, timer, sequence, nested, nesting, test, debug</p>	<p><b>Vocab:</b> Posture, typing, keys, spacebar</p>	<p><b>Vocab:</b> pie chart, data, table, bar graph</p>

## Computing: Year 4

Digital Literacy		Computer Science		Information Technology	
Online Safety	Effective searching	Coding	Hardware	Artificial intelligence	Spreadsheets
<ul style="list-style-type: none"> <li>• To understand that information put online leaves a digital footprint or trail and that this can aid identity theft.</li> <li>• To identify the positive and negative influences of technology on health and the environment.</li> <li>• To understand the importance of balancing game and screen time with other parts of their lives.</li> </ul>	<ul style="list-style-type: none"> <li>• To use search effectively and locate information on the search results page.</li> <li>• To assess whether an information source is true and reliable and to understand that copying the work of others and presenting it as their own is called 'plagiarism'</li> </ul>	<ul style="list-style-type: none"> <li>• To create a simple computer program.</li> <li>• To begin to understand selection in computer programming.</li> <li>• To understand how an IF statement works.</li> <li>• To understand the Repeat until command.</li> </ul>	<ul style="list-style-type: none"> <li>• To understand the different parts that make up a desktop computer.</li> </ul>	<ul style="list-style-type: none"> <li>• To understand the basic concept of artificial intelligence.</li> <li>• To understand the basic concept of artificial intelligence.</li> <li>• To recognise the impact of artificial intelligence in daily life.</li> <li>• To understand how artificial intelligence is being used to create music and art.</li> </ul>	<ul style="list-style-type: none"> <li>• To find out how to add formulae to a cell.</li> </ul>
<p><b>Vocab:</b> Report, SMART rules, Spam, attachment, phishing, digital footprint</p>	<p><b>Vocab:</b> search engine results page, Internet, key words, reliability, balanced view</p>	<p><b>Vocab:</b> Selection, if statement, decision, command, variable, number variable</p>	<p><b>Vocab:</b> Hardware, software, components, peripherals, motherboard, CPU, RAM, hard drive, graphics card, network card, monitor, mouse, keyboard</p>	<p><b>Vocab:</b> Algorithm, Artificial Intelligence, Data</p>	<p><b>Vocab:</b> Formula, decimal place, format cell, line graph, data. chart</p>



## Computing: Year 5

Digital Literacy	Computer Science	Information Technology	
Online Safety	Coding	Word processing	Spreadsheets
<ul style="list-style-type: none"> <li>• To gain a greater understanding of the impact that sharing digital content can have.</li> <li>• To gain a greater understanding of the impact that sharing digital content can have.</li> <li>• To know how to maintain secure passwords.</li> <li>• To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.</li> <li>• To learn about how to reference sources in their work.</li> </ul>	<ul style="list-style-type: none"> <li>• To review previous coding knowledge.</li> <li>• To be able to simplify code.</li> <li>• To create a playable game.</li> <li>• To understand what the different variable types are and how they are used differently.</li> <li>• To begin to explore text variables when coding.</li> </ul>	<ul style="list-style-type: none"> <li>• To add and edit images to a word document.</li> <li>• To know how to edit images and use word wrap with images and text.</li> <li>• To change the look of text within a document.</li> <li>• To consider page layout including heading and columns.</li> </ul>	<ul style="list-style-type: none"> <li>• To create formulae that use text variables.</li> </ul>
<p><b>Vocab:</b> Responsibility, SMART rules, citation, validity, reliability, plagiarism, bibliography, copyright</p>	<p><b>Vocab:</b> Collision, object, action, variable, selection, if/else statements, coordinates, simplify</p>	<p><b>Vocab:</b> Word Processing Tool, document, selecting\highlighting, font, Formatting, page, orientation, copy and paste, copyright, creative commons</p>	<p><b>Vocab:</b> text variables, cell format, totalling tool</p>

## Computing: Year 6

Digital Literacy	Computer Science	Information Technology	
Online Safety	Coding	Word Processing	Spreadsheets
<ul style="list-style-type: none"> <li>• To identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location</li> <li>• To identify the benefits and risks of giving personal information and device access to different software.</li> <li>• To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.</li> <li>• To understand the importance of balancing game and screen time with other parts of their lives</li> <li>• To identify the positive and negative influences of technology on health and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• To plan and use selection and variables.</li> <li>• To understand how the launch command works.</li> <li>• To use functions and understand why they are useful.</li> <li>• To understand how functions are created and called.</li> <li>• To use flowcharts to test and debug a program.</li> </ul>	<ul style="list-style-type: none"> <li>• To use tables within Google Docs to present information.</li> <li>• To change the look of text within a document.</li> <li>• To add and edit images to a document.</li> </ul>	<ul style="list-style-type: none"> <li>• To use a spreadsheet to calculate the discount and final prices in a sale. Create a formula to help work out the prices of items in the sale.</li> <li>• To use a spreadsheet to help plan a school event/sale.</li> </ul>
<p><b>Vocab:</b> secure websites, location sharing, phishing, password, PEGI, print screen, screen time, data analysis</p>	<p><b>Vocab:</b> Algorithm, action, Output, Selection, Variables, Repeat, Timer, launch command, Debug, String, Object, Event, function</p>	<p><b>Vocab:</b> computational model, percentage, format, move tool</p>	<p><b>Vocab:</b> Profit, expenses, budget</p>