

# HIGH LITTLETON CHURCH OF ENGLAND PRIMARY SCHOOL

## COMPUTING OVERVIEW

### EYFS TO YEAR 2

	Reception	Year 1	Year 2
	<b>Children are taught to:</b>		
<b>Birth to 5 Matters Understanding the World: Technology Range 5</b>	<ul style="list-style-type: none"> <li>• Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support</li> <li>• Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets</li> <li>• Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images</li> <li>• Knows that information can be retrieved from digital devices and the internet</li> <li>• Plays with a range of materials to learn cause and effect, for example, makes a string puppet using dowels and string to suspend the puppet</li> </ul>	<p><b>Online Safety:</b></p> <ul style="list-style-type: none"> <li>To login safely.</li> <li>To start to introduce to the children the idea of ‘ownership’ of their creative work.</li> <li>To know how to find saved work in the Online Work area and find teacher comments.</li> <li>To know how to search Purple Mash to find resources.</li> <li>To become familiar with the types of resources available in the Topics section.</li> <li>To become more familiar with the icons used in the resources in the Topic section.</li> <li>To start to add pictures and text to work.</li> <li>To explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New.</li> <li>To explore the Games section on Purple Mash.</li> <li>To understand the importance of logging out when they have finished.</li> </ul>	<p><b>Coding:</b></p> <ul style="list-style-type: none"> <li>To understand what an algorithm is.</li> <li>To create a computer program using simple algorithms.</li> <li>To compare the Turtle and Character objects.</li> <li>To use the button object.</li> <li>To understand how use the Repeat command.</li> <li>To understand how to use the Timer command.</li> <li>To know what debugging means.</li> <li>To understand the need to test and debug a program repeatedly.</li> <li>To debug simple programs.</li> <li>To create programs using different kinds of objects whose behaviours are limited to specific actions.</li> <li>To predict what the objects will do in other programs, based on their knowledge of what the object is capable of.</li> <li>To discuss how logic helped them understand that they could only predict specific actions, as that is what the objects were limited to.</li> <li>To use all the coding knowledge, they have learned throughout their programming lessons to create a more complex program that tells a story.</li> </ul>
<b>Birth to 5 Matters Understanding the World: Technology Range 6</b>		<p><b>Grouping and Sorting:</b></p> <ul style="list-style-type: none"> <li>To sort items using a range of criteria.</li> </ul>	<p><b>Online Safety:</b></p>

	<ul style="list-style-type: none"> <li>• Completes a simple program on electronic devices</li> <li>• Uses ICT hardware to interact with age appropriate computer software</li> <li>• Can create content such as a video recording, stories, and/or draw a picture on screen</li> <li>• Develops digital literacy skills by being able to access, understand and interact with a range of technologies</li> <li>• Can use the internet with adult supervision to find and retrieve information of interest to them</li> </ul>	<p>To sort items on the computer using the 'Grouping' activities in Purple Mash.</p>	<p>To know how to refine searches using the Search tool.</p> <p>To know how to share work electronically using the display boards.</p> <p>To use digital technology to share work on Purple Mash to communicate and connect with others locally.</p> <p>To have some knowledge and understanding about sharing more globally on the Internet.</p> <p>To introduce Email as a communication tool using 2Respond simulations.</p> <p>To understand how we talk to others when they aren't there in front of us.</p> <p>To open and send simple online communications in the form of email.</p> <p>To understand that information put online leaves a digital footprint or trail.</p> <p>To begin to think critically about the information they leave online.</p> <p>To identify the steps that can be taken to keep personal data and hardware secure.</p>
	<p><b>Statutory ELG: <u>None Birth to Five Matters:</u></b></p> <p>Children require access to a range of technologies, both digital and non-digital in their early lives. Exploring with different technologies through play provides opportunities to develop skills that children will go on to develop in their lifetimes. Investigations, scientific inquiry and exploration are essential components of learning about and with technology both digitally and in the natural world. Through technology children have additional opportunities to learn across all areas in both formal and informal ways. Technologies should be seen as tools to learn both from and with, in order to integrate technology effectively within early years practice.</p>	<p><b>Pictograms:</b></p> <p>To understand that data can be represented in picture format.</p> <p>To contribute to a class pictogram</p> <p>To use a pictogram to record the results of an experiment.</p>	<p><b>Spreadsheets:</b></p> <p>Reviewing prior use of spreadsheets.</p> <p>Copying and Pasting.</p> <p>Totalling tools.</p> <p>Using a spreadsheet to add amounts.</p> <p>Creating a table and block graph.</p>

		<p><b>Lego Builders:</b></p> <p>To emphasise the importance of following instructions.</p> <p>To follow and create simple instructions on the computer.</p> <p>To consider how the order of instructions affects the result.</p>	<p><b>Questioning:</b></p> <p>To show that the information provided on pictogram is of limited use beyond answering simple questions.</p> <p>To use YES or No questions to separate information.</p> <p>To construct a binary tree to separate different items.</p> <p>Use 2Question (a binary tree) to answer questions.</p> <p>To use a database to answer more complex search questions.</p> <p>To use the search tool to find information.</p>
		<p><b>Maze Explorers:</b></p> <p>To understand the functionality of the basic direction keys in Challenges 1 and 2.</p> <p>To be able to use the direction keys to complete the challenges successfully.</p> <p>To understand the functionality of the basic direction keys in Challenges 3 and 4.</p> <p>To understand how to create and debug a set of instructions (algorithm).</p> <p>To use the additional direction keys as part of their algorithm.</p> <p>To understand how to change and extend the algorithm list.</p> <p>To create a longer algorithm for an activity.</p> <p>To provide an opportunity for the children to set challenges for each other.</p> <p>To provide an opportunity for the teacher to set these new challenges as 2Dos for all the class to try.</p>	<p><b>Effective Searching:</b></p> <p>To understand the terminology associated with searching.</p> <p>To gain a better understanding about searching on the Internet.</p> <p>To create a leaflet to help someone search for information on the Internet.</p>
		<p><b>Coding:</b></p> <p>To understand what coding means in computing.</p> <p>To create unambiguous instructions like those required by a computer.</p> <p>To build one- and two-step instructions using the printable code cards.</p> <p>To introduce 2Code.</p>	<p><b>Creating Pictures:</b></p> <p>To be introduced to 2Paint A Picture.</p> <p>To look at the impressionist style of art (Monet, Degas, Renoir).</p> <p>To recreate pointillist art and look at the work of pointillist artists such as Seurat.</p>

		<p>To use the 2Code program to create a simple program.</p> <p>To use Design Mode to add and change backgrounds and characters. They will use the Properties table to change the look of the objects.</p> <p>To use the Properties table to change the look of the objects.</p> <p>To design a scene for a program.</p> <p>To use code blocks to make the characters move automatically when the green Play button is clicked.</p> <p>To add an additional character who moves when clicked.</p> <p>To explore the When Key and When Swiped commands (on tablets if available).</p> <p>To use the Stop button to make characters stop when the background is clicked.</p> <p>To explore a method to code interactivity between objects.</p> <p>To use Collision Detection to make objects perform actions.</p> <p>To use the sound property.</p>	<p>To look at the work of Piet Mondrian and recreate it using the Lines template.</p> <p>To look at the work of William Morris and recreate it using the Patterns template.</p> <p>To explore surrealism and eCollage.</p>
		<p><b>Spreadsheets:</b></p> <p>Introduction to spreadsheets.</p> <p>Adding images to a spreadsheet and using the image toolbox.</p> <p>Using the 'speak' and 'count' tools in 2Calculate to count items.</p>	<p><b>Making Music:</b></p> <p>To be introduced to making music digitally using 2Sequence.</p> <p>To explore, edit and combine sounds using 2Sequence.</p> <p>To add sounds to a tune they've already created to change it.</p> <p>To think about how music can be used to express feelings and create tunes which depict feelings.</p> <p>To upload a sound from a bank of sounds into the Sounds section.</p> <p>To record their own sound and upload it into the Sounds section.</p> <p>To create their own tune using the sounds which they have added to the Sounds section.</p>

		<p><b>Animated Story Books:</b> To be introduced to e-books and to 2Create a Story. To continue a previously saved story. To add animation to a story. To add sound to a story including voice recording and music the children have created. To work on a more complex story including adding backgrounds and copying and pasting pages. To use additional features to enhance their stories. To share their e-books on a class display board.</p>	<p><b>Presenting Ideas:</b> To explore how a story can be presented in different ways. To make a quiz about a story or class topic. To make a fact file on a non-fiction topic. To make a presentation to the class.</p>
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