

**HIGH LITTLETON CHURCH OF ENGLAND PRIMARY SCHOOL**  
**COMPUTING MEDIUM TERM PLAN TERM 3**  
**2024-2025**

	<b>Week 1</b>	<b>Week 2</b>	<b>Week 3</b>	<b>Week 4</b>	<b>Week 5</b>	<b>Week 6</b>	<b>Week 7</b>
<b>Hedgehog (Y1)</b>	<p><b>Buttons</b> Learners will be introduced to floor robots. They will talk about what the buttons on a floor robot might do and then try the buttons out. They will spend time linking an outcome to a button press. Learners will consider the direction command buttons, as well as the 'clear memory' and 'run program' buttons.</p>	<p><b>Directions</b> Learners will think about the language used to give directions and how precise it needs to be. They will also work with a partner to give and follow instructions. These real-world activities should, at suitable points during this lesson, be related to the floor robot introduced in Lesson 1.</p>	<p><b>Forwards and backwards</b> Learners will focus on programming the floor robot to move forwards and backwards. They will see that the robot moves forwards and backwards a fixed distance. This highlights the idea that robots follow a clear, fixed command in a precise and repeatable way. Learners will think about starting the robot from the same place each time. Using the same starting position with fixed commands will allow learners to predict what a program will do.</p>	<p><b>Four directions</b> Learners will focus on programming the floor robot to move forwards and backwards. They will see that the robot moves forwards and backwards a fixed distance. This highlights the idea that robots follow a clear, fixed command in a precise and repeatable way. Learners will think about starting the robot from the same place each time. Using the same starting position with fixed commands will allow learners to predict what a program will do.</p>	<p><b>Getting there</b> Learners will use 'left turn' and 'right turn' commands along with 'forwards' and 'backwards' commands. Doing this will allow learners to develop slightly more complex programs. Learners will create their programs in this lesson through trial and error, before moving on to planning out their programs in Lesson 5. In Activity 3, learners will predict where given programs will move the robot to. Learners will make their predictions by looking at the commands and matching the</p>	<p><b>Routes</b> Learners will be encouraged to plan routes around a mat before they start to write programs for those routes. The activities in this lesson also introduce the concept of there being more than one way to solve a problem. This concept is valid for a lot of programming activities: the same outcome can be achieved through a number of different approaches, and there is not necessarily a 'right' approach. The lesson also introduces the idea of program</p>	<b>POP task</b>

					program steps to movements.	design, where learners need to plan what they want their program to achieve before they start programming.	
<b>Fox (Y2)</b>	<b>Giving instructions</b> Learners will follow instructions given to them and give instructions to others. They will consider the language used to give instructions, and how that language needs to be clear and precise. Learners will combine several instructions into a sequence that can then be issued to another learner to complete. They will then consider a clear and precise set of instructions in relation to an algorithm, and will think about how computers can only follow clear and unambiguous instructions.	<b>Same but different</b> Learners will focus on sequences, and consider the importance of the order of instructions within a sequence. They will create sequences using the same instructions in different orders. They will then test these sequences to see how the different orders affect the outcome.	<b>Making predictions</b> Learners will use logical reasoning to make predictions. They will follow a program step by step and identify what the outcome will be.	<b>Mats and routes</b> Learners will design, create, and test a mat for a floor robot. This will introduce the idea that design in programming not only includes code and algorithms, but also artefacts related to the project, such as artwork.	<b>Algorithm design</b> Learners will design an algorithm to move their robot around the mat that they designed in Lesson 4. As part of the design process, learners will outline what their task is by identifying the starting and finishing points of a route. This outlining will ensure that learners clearly understand what they want their program to achieve.	<b>Break it down</b> Learners will take on a larger programming task. They will break the task into chunks and create algorithms for each chunk. This process is known as 'decomposition' and is covered further in key stage 2. Learners will also find and fix errors in their algorithms and programs. They will understand this process to be 'debugging'.	<b>POP task</b>
<b>Badger (Y3)</b>	<b>Words and pictures</b> Learners will become familiar with the terms 'text' and 'images' and understand that text and images need to be used carefully to communicate	<b>Can you edit it?</b> Learners will think about how to make careful choices regarding font size, colour, and type in an invitation. The use of	<b>Great template!</b> Learners will be introduced to the terms 'templates', 'orientation', and 'placeholders' within desktop publishing	<b>Can you add content?</b> Learners will add their own content (text and images) to the magazine templates they	<b>Lay it out</b> Learners will think about the different ways information can be laid out on a page. They will look at a range of page	<b>Why desktop publishing?</b> Learners will explain what desktop publishing means in their own words. They will	<b>POP task</b>

	<p>messages clearly. Learners will be able to give advantages and disadvantages of using text, images, or both text and images to communicate messages effectively.</p>	<p>the Return, Backspace, and Shift keys will be explored and learners will be taught how to type age-appropriate punctuation marks.</p>	<p>software. The learners will create their own magazine template, which they will add content to during the next lesson.</p>	<p>created in lesson 3. They will copy the information for the front of their magazine from a prewritten document and paste it into the chosen place on their magazine cover. Images will be added from within the search facility in Canva.</p>	<p>layouts such as letters and newspapers, and begin to think about the purpose of each of these.</p>	<p>think about how desktop publishing is used in the wider world and consider the benefits of using desktop publishing applications.</p>	
<p><b>Otter (Y4)</b></p>	<p><b>Answering questions</b> Learners will consider what data can be collected and how it is collected. They will think about data being collected over time. Learners will also think about questions that can and can't be answered using available data, and reflect on the importance of collecting the right data to answer questions.</p>	<p><b>Data collection</b> Learners will build on the idea of collecting data over time, and be introduced to the idea of collecting data automatically using computers such as data loggers. They will also be introduced to the concept that computers can capture data from the physical world using input devices called 'sensors'. Learners will establish that sensors can be connected to data loggers, which can automatically collect data while not attached to a computer.</p>	<p><b>Logging</b> Learners will explore how data loggers work. They will record data at set moments in time and draw parallels with the data points that a data logger captures at regular intervals. Learners will use data loggers away from a computer, then they will connect the loggers to a computer and download the data.</p>	<p><b>Analysing data</b> Learners will open an existing data file and use software to find out key information. They will analyse a data file which is a five-hour log of hot water cooling to room temperature.</p>	<p><b>Data for answers</b> Learners will think about questions that can be answered using collected data. They will choose a question to focus on and then plan the data logging process that they need to complete. After learners have completed their plan, they will set up the data loggers to check that their plan will work. This setting up is designed to ensure that the data collection will work, and that learners will have data to use in the next lesson.</p>	<p><b>Answering my question</b> Learners will access and review the data that they have collected using a data logger. They will then use the data collected to answer the question that they selected in the previous lesson. Learners will also reflect on the benefits of using a data logger.</p>	<p><b>POP task</b></p>
<p><b>Robin (Y5)</b></p>	<p><b>Creating a paper-based database</b> Learners will create a paper version of a record card database. Using a card template, they will create a data set, with</p>	<p><b>Computer databases</b> Learners will use a computer-based database to examine how data can be recorded and viewed. They will learn that a</p>	<p><b>Using a database</b> Learners will investigate how records can be grouped, using both the paper record cards created in</p>	<p><b>Using search tools</b> Learners will develop their search techniques to answer questions about the data. They will use advanced techniques</p>	<p><b>Comparing data visually</b> Learners will consider what makes a useful chart, and how charts can be used</p>	<p><b>Databases in real life</b> The final lesson requires learners to use a real-life database to ask questions and find</p>	<p><b>POP task</b></p>

	<p>each learner creating eight to ten cards linked to a theme, e.g. animals. They will complete records for each of the animals in their database and then they will physically sort the cards to answer questions about the data.</p>	<p>database consists of 'records', and that each record contains 'fields'. In addition, they will order records in different ways and compare this database to the paper database they created in Lesson 1.</p>	<p>Lesson 1 and a computer-based database from J2E. They will use 'grouping' and 'sorting' to answer questions about the data.</p>	<p>to search for more than one field, and will practise doing this through both unplugged methods (without using computers), and using a computer database.</p>	<p>to compare data. They will create charts from their data in order to answer questions about it.</p>	<p>answers in the context of a flight search based on set parameters. They will take on the role of a travel agent and present their findings, showing how they arrived at their chosen options. Presentations may be given between groups of learners, or by each group to the whole class, depending on the time available.</p>	
<p><b>Deer (Y6)</b></p>	<p><b>What makes a good website?</b> To review an existing website and consider its structure</p>	<p><b>How would you lay out your webpage?</b> Learners will look at the different layout features available in Google Sites and plan their own web page on paper.</p>	<p><b>Copyright or CopyWRONG?</b> Learners will become familiar with the terms 'fair use' and 'copyright'. They will gain an understanding of why they should only use copyright-free images and will find appropriate images to use in their work from suggested sources.</p>	<p><b>How does it look?</b> Learners will revise how to create their own web page in Google Sites. Using their plan from previous lessons, learners will create their own web page/home page.</p>	<p><b>Follow the breadcrumbs</b> Learners will begin to appreciate the need to plan the structure of a website carefully. They will plan their website, paying attention to the navigation paths (the way that pages are linked together). They will then create multiple web pages for their site and use hyperlinks to link them together as detailed in their planning.</p>	<p><b>Think before you link!</b> Learners will consider the implications of linking to content owned by other people and create hyperlinks on their own websites that link to other people's work. They will then evaluate the user experience when using their own website and that of another learner.</p>	<p><b>POP task</b></p>