HIGH LITTLETON CHURCH OF ENGLAND PRIMARY SCHOOL
COMPUTING MEDIUM TERM PLAN TERM 4
2024-2025

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Hedgehog (Y1)	**Label and match** Learners will begin to understand that objects have many different labels that can be used to put them into groups. They will name different objects and begin to experiment with placing them into different groups. Learners will also label a group of objects, and begin to understand that an object can fit into more than one group depending on the context.	**Group and count** Learners will begin to think about grouping objects based on what the objects are. They will demonstrate the ability to count a small number of objects before they group them, and will then begin to show that they can count groups of objects with the same label. Learners will also begin to learn that computers are not intelligent, and require input from humans to perform tasks.	**Describe an object** Learners will begin to understand that objects can be described in many different ways. They will identify the properties of objects and begin to understand that properties can be used to group objects; for example, objects can be grouped by colour or size. Finally, learners will demonstrate their ability to find objects with similar properties and begin to understand the reason that we need to give labels to images on a computer.	**Making different groups** Learners will classify objects based on their properties. They will group objects that have similar properties, and will be able to explain how they have grouped these. Learners will begin to group a number of the same objects in different ways, and will demonstrate their ability to count these different groups.	**Comparing groups** Learners will choose how they want to group different objects by properties. They will begin to compare and describe groups of objects, then they will record the number of objects in each group.	**Answering questions** Learners will decide how to group objects to answer questions. They will compare their groups by thinking about how they are similar or different, and they will record what they find. They will then share what they have found with their peers.	**POP task**
Fox (Y2)	**Counting and comparing** During this lesson learners will begin to understand the importance of organising data effectively for counting and comparing. They will create their own	**Enter the data** During this lesson learners will become familiar with the term 'pictogram'. They will create pictograms manually and then progress to creating	**Creating pictograms** During this lesson learners will think about the importance of effective data collection and will	**What is an attribute?** During this lesson learners will think about ways in which objects can be grouped by attribute. They will then tally objects using a	**Comparing people** During this lesson learners will understand that people can be described by attributes. They will practise using	**Presenting information** During this lesson learners will understand that there are other ways to present data than using	**POP task**

	tally charts to organise data, and represent the tally count as a total. Finally, they will answer questions comparing totals in tally charts using vocabulary such as 'more than' and 'less than'.	them using a computer. Learners will begin to understand the advantages of using computers rather than manual methods to create pictograms, and use this to answer simple questions.	consider the benefits of different data collection methods: why, for example, we would use a pictogram to display the data collected. They will collect data to create a tally chart and use this to make a pictogram on a computer. Learners will explain what their finished pictogram shows by writing a range of statements to describe this.	common attribute and present the data in the form of a pictogram. Learners will answer questions based on their pictograms using mathematical vocabulary such as 'more than'/'less than' and 'most'/'least'.	attributes to describe images of people and the other learners in the class. The learners will collect data needed to organise people using attributes and create a pictogram to show this pictorially. Finally, learners will draw conclusions from their pictograms and share their findings.	tally charts and pictograms. They will use a pre-made tally chart to create a block diagram on their device. Learners will then share their data with a partner and discuss their findings. They will consider whether it is always OK to share data and when it is not OK. They will know that it is alright to say no if someone asks for their data, and how to report their concerns.	
Badger (Y3)	**Yes or no questions** Learners will start to explore questions with yes/no answers, and how these can be used to identify and compare objects. They will create their own yes/no questions, before using these to split a collection of objects into groups.	**Making groups** Learners will develop their understanding of using questions with yes/no answers to group objects more than once. They will learn how to arrange objects into a tree structure and will continue to think about which attributes the questions are related to.	**Creating a branching database** Learners will continue to develop their understanding of ordering objects/images in a branching database structure. They will learn how to use an online database tool to arrange objects into a branching database, and will create their own questions with yes/no answers. Learners will show that their branching database works through testing.	**Structuring a branching database** Learners will continue to develop their understanding of how to create a well-structured database. They will use attributes to create questions with yes/no answers, and will apply these to given objects. Learners will compare the efficiency of different branching databases, and will be able to explain why questions need to be in a specific order.	**Using a branching database** Learners will independently plan a branching database by creating a physical representation of one that will identify different types of dinosaur. They will continue to think about the attributes of objects to write questions with yes/no answers, which will enable them to separate a group of objects effectively. Learners will then arrange the questions and objects into a tree	**Two ways of presenting information** Learners will independently create a branching database to identify different types of dinosaur, based on the paper-based version that they created in Lesson 5. They will then work with a partner to test that their database works, before considering real-world applications for branching databases.	**POP task**

						structure, before testing the structure.		
Otter (Y4)	**Changing digital images** Learners will be introduced to the concept of editing images. They will go on to explore when we need to rotate and crop an image as well as how to use an image editor to make these changes. Learners will then discuss image composition.	**Recolouring** Learners will look at the effect that different colours and filters can have on an image. They will choose appropriate effects to fit a scenario, and explain how they made their choices. They will then edit the images using different effects to suit two different scenarios.	**Cloning** Learners will be introduced to the cloning tool and its use in both changing the composition of a photo and photo retouching. They will see how parts of a photo can be removed or duplicated using cloning. Learners will consider what parts of an image can be retouched and learn techniques to make this as unnoticeable as possible. Finally, they will consider when it is necessary to edit photographs in this way.	**Combining** Learners learn how to use different tools to select areas of an image. Learners then use copy and paste within one image and between two images to produce a combined image. Finally, learners will consider when it's appropriate to edit an image and discuss some of the ethics around retouching photos.	**Creating** Learners will apply all the skills they have learnt in the unit so far. They will start by reviewing some images and considering what makes an image look real or made up. Learners will then plan their own image. They will choose from a selection of images, open them and edit them to create their own project.	**Evaluating** Learners will review the image that they created in Lesson 5. After they have reviewed their image, they will have the opportunity to make changes to their image based on their review. Learners will then add text to their image to complete it as a publication.	**POP task**
Robin (Y5)	**Connecting Crumbles** In this lesson, your learners will become familiar with the Crumble controller and the programming environment used to control it. Learners will connect a Sparkle to a Crumble and then program the Crumble to make the Sparkle flash different colour patterns. Learners will also use infinite loops,	**Combining output components** In this lesson, learners will connect a Sparkle and a motor to the Crumble controller. Learners will design sequences of actions for these components. They will then apply their understanding of repetition by using count-controlled	**Controlling with conditions** In this lesson, learners will be introduced to conditions, and how they can be used in programs to control their flow. They will identify conditions in statements, stating if they are true or false. Learners will be	**Starting with selection** In this lesson, learners will develop their understanding of how the flow of actions in algorithms and programs can be controlled by conditions. They will be introduced to selection and then represent	**Drawing designs** In this lesson, learners will apply their understanding of microcontrollers and selection when designing a project to meet the requirements of a given task. To support their understanding, learners will identify how	**Writing and testing algorithms** In this final lesson of the unit, learners will develop Crumble programs to control the model of a fairground ride they built in Lesson 5. First, learners will identify how they	**POP task**

	which were introduced to the learners in the previous school year.	loops when implementing their design as a program.	introduced to a Crumble switch, and learn how it can provide the Crumble controller with an input that can be used as a condition. They will explore how to write programs that use an input as a condition.	conditions and actions using the 'if...then...' structure. Learners will create algorithms that include selection. They will use their algorithms to guide their program writing. Learners will see that infinite repetition is required to repeatedly check if a condition has been met.	selection might be used in real-world situations, then they will consider how they can apply this knowledge to design their project. Learners will produce design sketches to show how their model will be made and how they will connect the microcontroller to its components.	are going to use selection before writing an algorithm to meet the requirements of the given task. They will then implement their algorithms as code. Learners will run their programs to identify any bugs, and then return to the code or algorithm to debug it where necessary. Finally, to conclude the unit, learners will evaluate their designs.	
Deer (Y6)	**What is a spreadsheet?** Learners will collect and organise data in a format of their choice. They will then explore how data can be structured in a table. Finally they will input data into a spreadsheet.	**Modifying spreadsheets** Learners will develop their understanding of the structure of a spreadsheet. They will be introduced to cell references, data items and the concept of formatting cells. Learners will see data items formatted in different ways, they will then choose formats for data items before applying formats in their own spreadsheet.	**What's the formula?** Learners will begin to use formulas to produce calculated data. They will understand that the type of data in a cell is important (e.g. numbers can be used in calculations whereas words cannot). Learners will create formulas to use in a spreadsheet using cell references and identify that	**Calculate and duplicate** Learners will calculate data using the operations of multiplication, subtraction, division, and addition. They will use these operations to create formulas in a spreadsheet. Learners will then begin to understand the importance of creating formulas that include a range	**Event planning** Learners will plan and calculate the cost of an event using a spreadsheet. They will use a predefined list to choose what they would like to include in their event, and use their spreadsheet to answer questions on the data they have selected. Learners will be reminded of the importance of	**Presenting data** Learners will gain skills to create charts in Google Sheets. They will evaluate the results from their charts to answer questions. Finally, learners will show they understand that there are different software tools available within spreadsheet applications to present data.	**POP task**

			changing inputs will change the output of the calculation.	of cells and the advantage of duplicating in order to apply formulas to multiple cells.	organising data and will then create a spreadsheet using formulas to work out costs for their event.		