



All Saints CE Primary School and Nursery

Medium Term Planning



Class teacher: Mrs Korzeniewski Year group: 4 Term: Autumn 2 Subject: Computing - Programming: repetition in shapes

Lesson	Learning Goal (L.G.)	Brief outline of lesson content	Key Vocabulary covered
1	LG: how to stay safe online	<p><u>Lesson 2: Use a search engine accurately</u></p> <p><u>Twinkl - online safety year 4 Lesson 2. Learners will:</u></p> <ul style="list-style-type: none"> access a trusted search engine. use strategies which improve my results when searching online. choose an appropriate number of words to include in my searches. 	<p>Logo (programming environment), program, turtle, commands, code snippet, algorithm, design, debug, pattern, repeat, repetition, count-controlled loop, value, trace, decompose, procedure</p>
2	1 Programming a screen turtle	<p><u>Teach Computing Programming A - repetition in shapes</u></p> <p>This lesson will introduce pupils to programming in Logo. Logo is a text-based programming language where pupils type commands that are then drawn on screen. Pupils will learn the basic Logo commands, and will use their knowledge of them to read and write code.</p>	
3	2 Programming letters	<p>In this lesson, pupils will create algorithms (a precise set of ordered instructions, which can be turned into code) for their initials. They will then implement these algorithms by writing them in Logo commands to draw the letter. They will debug their code by finding and fixing any errors that they spot.</p>	
4	3 Patterns and repeats	<p>In this lesson, pupils will first look at examples of patterns in everyday life. They will recognise where numbers, shapes, and symbols are repeated, and how many times repeats occur. They will create algorithms for drawing a square, using the same annotated diagram as in Lesson 2. They will use this algorithm to program a square the 'long' way, and recognise the repeated pattern within a square. Once they know the repeated pattern, they will use the repeat command within Logo to program squares the 'short' way.</p>	
5	4 Using loops to create shapes	<p>In this lesson, pupils will work with count-controlled loops in a range of contexts. First, they will think about a real-life example, then they will move on to using count-controlled loops in</p>	

		regular 2D shapes. They will trace code to predict which shapes will be drawn, and they will modify existing code by changing values within the code snippet.	
6	5 Breaking things down	In this lesson, pupils will focus on decomposition. They will break down everyday tasks into smaller parts and think about how code snippets can be broken down to make them easier to plan and work with. They will learn to create, name, and call procedures in Logo, which are code snippets that can be reused in their programming.	
7	6 Creating a program	In the final lesson, pupils will apply the skills that they have learnt in this unit to create a program containing a count-controlled loop. Over the course of the lesson, they will design wrapping paper using more than one shape, which they will create with a program that uses count-controlled loops. They will begin by creating the algorithm, either as an annotated sketch, or as a sketch and algorithm, and then implement it as code. They will debug their work throughout, and evaluate their programs against the original brief.	