



Respect, Believe, Achieve

# Year 5

## Text Coding

Computer Science



### Key Words

<b>turtle</b>	A virtual robot turtle which can turn, travel and draw.
<b>logo</b>	A simple programming language used to control turtle graphics.
<b>command</b>	An instruction a computer can follow.
<b>graphics</b>	Visual images or pictures (instead of words).
<b>vector graphics</b>	Pictures stored as a set of instructions instead of coloured squares. They can be made much larger without looking grainy.

### What do I already know?

- I can break a problem up into smaller parts
- I can put programming commands into a sequence to achieve a specific outcome
- I keep testing my programme and can recognise when I need to debug it
- I can use repeat commands I can set up conditional events with 'if statements'
- I can use a variable to keep score
- I can adjust a variable using events and reset it.
- I can use loops to make code more efficient.
- I can describe the algorithm that I will need for a simple task
- I can detect a problem in an algorithm that may result in unsuccessful programming

## Our Learning Steps

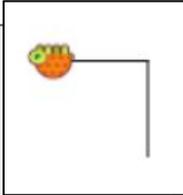
### 1. Exploring patterns

I will discover how block coding can contain text code. I will explore using shapes, patterns and loops to make pictures.



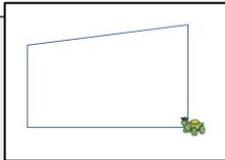
### 1. Text code

I will use text to command a turtle to move and draw. I will control the pen using up and down commands.



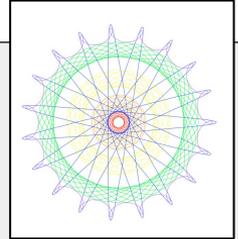
### 2. Polygons

I will use angles and lengths to create 2D shapes.



### 4. Spirograph

I will use loops and shapes to create coloured patterns.



### 5. Extn: Controlling the Pen

I will learn to change between the pen up and down. I will learn that Scratch coding has the same tool as a pen extension.



### 6. Assessment: What skills have you learned?

I can use simple text commands to draw vector graphics.  
I can draw 2D shapes.  
I can use loops and turns to create patterns.

