



Respect, Believe, Achieve

# Year 6

## Using Python

Computer Science

### Key Words

<b>python</b>	A coding language used to by real programmers including those at Google and Facebook
<b>define function</b>	When you tell a computer to remember a code for a new set of instructions
<b>parameters</b>	Information entered into functions
<b>output display</b>	Information displayed on screen instead of the coded instructions the computer follows
<b>abstraction</b>	Making things simpler to make interaction between people and computers easier.

### What do I already know?

- I can use a range of programming skills to write efficient code, including defining my own commands
- I can decompose a problem to design an algorithm for a specific outcome and use this to write a programme for a device or on screen activity
- I can detect a problem in an algorithm that may result in unsuccessful programming and require debugging
- I can use text commands to build and format a website, and to draw vector graphics
- I can use logical thinking, imagination and creativity to extend a program

# Our Learning Steps

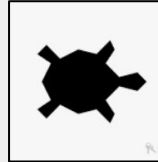
## 1. Introducing Python

I will use Python to display text, calculate numbers and select variables.



## 2. Python graphics

I will use turtle graphics to create shapes. I will use loops make coding easier.



## 3. Random Lists

I will use random functions to allow the computer to generate new numbers, sentences and pictures.



## 4. Functions

I will learn to speed up coding by defining my own functions.



## 5. Debug

I will debug formatting errors that appear on websites.



## 6. Assessment: Understanding Code

I can give ways text code and block code are similar.  
I can recognise a variable and a loop in python code.  
I can explain how computers and people use abstraction to communicate.