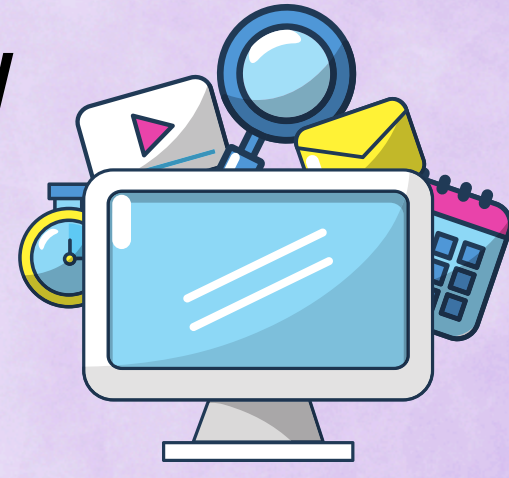


# Computing Curriculum Overview

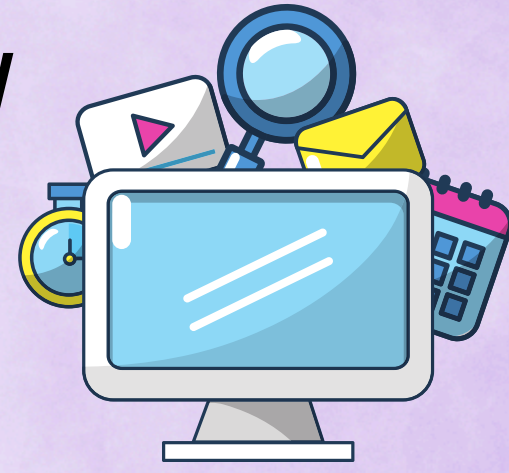


## Year 3 and 4 - Year A

Autumn 1		Autumn 2	
Email		Coding	
<p>To think about different methods of communication. To open and respond to an email using an address book. To learn how to use email safely. To add an attachment to an email. To explore a simulated email scenario.</p>		<p>To understand what a flowchart is and how flowcharts are used in computer programming. To understand that there are different types of timers and select the right type for purpose. To understand how to use the repeat command. To understand the importance of nesting. To design and create an interactive scene.</p>	
Spring 1		Spring 2	
Spreadsheets	Branching databases	Graphing	
<p>To use 2Calculate to collect data and produce a variety of graphs. To use the advanced mode of 2Calculate to learn about cell references. To use the formula wizard and the formula bar to write formulae. To use the tools within 2Calculate to explore number. To create a computational model using a spreadsheet.</p>	<p>To understand the concept of using 'Yes' or 'No' questions to sort objects. To understand and use a branching database effectively. To plan and create a branching database. To test and debug branching databases to correct errors.</p>	<p>To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form.</p>	
Summer 1		Summer 2	
Micro bits	Simulations	Micro bits	
<p>To understand that the micro:bit is a tiny computer which needs code to make it work. To use Free code micro:bit to make code that the micro:bit can understand and then transfer it to the micro:bit. To code a micro:bit to show animations on its LEDs. To recognise the key inputs and outputs such as accelerometer and LED display. To create code that generates sound outputs based on different movement gestures.</p>	<p>To consider what simulations are. To explore a simulation. To analyse and evaluate a simulation.</p>	<p>To code a micro:bit to make it work as a step counter. To code a micro:bit to make a light switch that switches on or off when the light level changes. To code a micro:bit to make a rock, paper and scissors game. To code micro:bits to make simulated dice.</p>	

# Computing Curriculum Overview

## Year 3 and 4 - Year B



Autumn 1		Autumn 2	
Writing for different audiences		Coding	
<p>To explore how font size and style can affect the impact of a text.</p> <p>To use a simulated scenario to produce a news report.</p> <p>To use a simulated scenario to write for a community campaign</p>		<p>To begin to understand selection in computer programming.</p> <p>To understand how an IF statement works.</p> <p>To understand how to use co-ordinates in computer programming.</p> <p>To understand the 'repeat until' command.</p> <p>To understand how an IF/ELSE statement works.</p> <p>To understand what a variable is in programming.</p> <p>To use a number variable.</p> <p>To create a playable game.</p>	
Spring 1		Spring 2	
Artificial intelligence	Making music	Branching databases	
<p>To learn what is meant by the term artificial intelligence.</p> <p>To be clear about ways artificial intelligence is used in our everyday lives.</p> <p>To consider the future of artificial intelligence</p> <p>To look at how artificial intelligence is used in music and the arts to create things.</p>	<p>To identify and discuss the main elements of music.</p> <p>To understand and experiment with rhythm and tempo.</p> <p>To create a melodic phrase.</p> <p>To electronically compose a piece of music.</p>	<p>To discuss what makes a good animated film or cartoon.</p> <p>To learn how animations are created by hand.</p> <p>To find out how animation can be created in a similar way using the computer.</p> <p>To learn about onion skinning in animation.</p> <p>To add backgrounds and sounds to animations.</p> <p>To be introduced to 'stop motion' animation.</p> <p>To share animation on the display board and view others work.</p>	
Summer 1		Summer 2	
Logo	Hardware investigators	Effective searching	Micro bits
<p>To learn the structure of the coding language of Logo.</p> <p>To input simple instructions in Logo.</p> <p>Using 2Logo to create letter shapes.</p> <p>To use the Repeat function in Logo to create shapes.</p> <p>To use and build procedures in Logo.</p>	<p>To understand the different parts that make up a computer.</p> <p>To recall the different parts that make up a computer.</p>	<p>To locate information on the search results page.</p> <p>To use search effectively to find out information.</p> <p>To assess whether an information source is true and reliable.</p>	<p>To understand how sensor inputs from the accelerometer can be used to detect movement, such as when a step is taken.</p> <p>To understand how variables can be used to keep track of things in a program.</p> <p>To understand how inputs, outputs and computer code work together to make control systems.</p> <p>To understand what logic is and how it can be used to make different outputs happen according to different inputs.</p> <p>To be able to make a control system and game.</p>