

## Computing End Points

YEAR 4		
<p><b>UNIT 4.1</b> Coding</p>	<p>Children will create programs that respond to commands and repeat actions. They will learn how to create variables, program characters, make timers and counting machines, as well as know what decomposition and abstraction are in computer science and use these in a real-life situation.</p>	<ul style="list-style-type: none"> <li>• I can make use of the X and Y properties of objects in my coding.</li> <li>• I can read code that includes Repeat Until and IF/ ELSE and explain how it works.</li> <li>• I can create a program that includes an IF/ ELSE statement.</li> <li>• I can use the correct code to make my game work.</li> <li>• I can explain how my code makes my game work.</li> <li>• I can create and use variables when programming.</li> </ul>
<p><b>UNIT 4.2</b> Online Safety</p>	<p>Children will understand how they can protect themselves from online identity theft and understand that information put online leaves a digital footprint and can aid identity theft. They will identify the risks and benefits of installing software including apps. Children will understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. They will identify appropriate behaviour when participating or contributing to collaborative online projects for learning. Children will identify the positive and negative influences of technology on health and the environment and understand the importance of balancing game and screen time with other parts of their lives.</p>	<ul style="list-style-type: none"> <li>• I know the meaning of the term 'phishing' and are aware of the existence of scam websites.</li> <li>• I can explain what a digital footprint is and how it relates to identity theft.</li> <li>• I can identify possible risks of installing free and paid for software.</li> <li>• I know what a computer virus is.</li> <li>• I can determine whether activities that I undertake online, infringe another's' copyright.</li> <li>• I know about citing sources that I have used.</li> <li>• I can take more informed ownership of the way that I choose to use my free time. I recognise a need to find a balance between being active and digital activities.</li> </ul>
<p><b>UNIT 4.3</b> Spreadsheets</p>	<p>Children will be able to add formulae and explore formatting cells in spreadsheets. They will be able to use different functions and begin to use spreadsheets for budgeting.</p>	<ul style="list-style-type: none"> <li>• I can add a formula to a cell to automatically make a calculation in that cell.</li> <li>• I can use the timer, random number and spin button tools.</li> <li>• I can combine tools to make fun ways to explore number.</li> <li>• I can use a series of data in a spreadsheet to create a line graph and use this to find answers.</li> <li>• I can use a spreadsheet made to check my understanding of a mathematical concept.</li> </ul>
<p><b>UNIT 4.4</b> Writing for Different Audiences</p>	<p>Children will explore how font size and style can affect the impact of a text. They will use simulated scenarios to write for a purpose.</p>	<ul style="list-style-type: none"> <li>• I can look at and discussed a variety of written material where the font size and type are tailored to the purpose of the text.</li> <li>• I can use text formatting to make a piece of writing fit for its audience and purpose.</li> </ul>
<p><b>UNIT 4.5</b> Logo</p>	<p>Children will learn common commands and constructs of the Logo programming language; a text-based coding language used to control an on-screen turtle to create mathematical patterns. They will develop their ability to input simple instructions, create letter shapes, use the Repeat command and build procedures.</p>	<ul style="list-style-type: none"> <li>• I know what the common instructions are in 2Logo and how to type them.</li> <li>• I can follow simple 2Logo instructions to create shapes on paper.</li> <li>• I can create 2Logo instructions to draw patterns of increasing complexity.</li> <li>• I understand the pu and pd commands.</li> <li>• I can follow 2Logo code to predict the outcome.</li> <li>• I can create shapes using the Repeat command.</li> <li>• I can use the Procedure feature.</li> </ul>
<p><b>UNIT 4.6</b></p>	<p>Children will decide what makes a good, animated film or cartoon and discuss favourite animations. They will learn how animations are</p>	<ul style="list-style-type: none"> <li>• I have made a simple animation using 2Animate.</li> </ul>

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<p><b>Animation</b></p>	<p>created by hand and how 2Animate animations can be created in a similar way, using technology. Children will learn how onion skinning is used in animation and add backgrounds and sounds to them.</p>	<ul style="list-style-type: none"> <li>• I can use the Onion Skin tool to create an animated image.</li> <li>• I can use backgrounds and sounds to make more complex and imaginative animations.</li> <li>• I have used some of the ideas from existing 'stop motion' films to recreate my own animation.</li> </ul>
<p><b>UNIT 4.7 Effective Searching</b></p>	<p>Children will use the search function effectively to locate information on the search results page and assess whether an information sources is true and reliable.</p>	<ul style="list-style-type: none"> <li>• I can structure search queries to locate specific information.</li> <li>• I have used search to answer a series of questions.</li> <li>• I have written search questions for a friend to solve.</li> <li>• I can analyse the contents of a web page for clues about the credibility of the information.</li> </ul>
<p><b>UNIT 4.8 Hardware Investigators</b></p>	<p>Children will understand and recall the different parts that make up a computer.</p>	<ul style="list-style-type: none"> <li>• I can name the different parts of a desktop computer.</li> <li>• I know what the function of the different parts of a computer is.</li> </ul>
	<p>Children will be able to identify and discuss the main elements of music- pulse, rhythm, tempo, pitch and texture. They will understand and experiment with rhythm and tempo, create a melodic phrase and compose a piece of electronic music.</p>	<ul style="list-style-type: none"> <li>• I can create my own simple rhythm using Busy Beats.</li> <li>• I can create a simple melodic pattern using 2Sequence and Busy Beats.</li> <li>• I can use a variety of notes, experimenting with pitch.</li> <li>• I can explore and understand how music is created.</li> <li>• I can experiment with pitch, rhythm and melody to create a piece of house music on Busy Beats.</li> </ul>