

Year 2021-2022							
Other Curricular Goals	CURRICULAR KEY AREA – CHILDREN KNOW HOW...						
	Component: Computing Systems & Networks						
	Class 1	Class 2		Class 3		Class 4	
Reception Expected	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	
<p>Know how to use Standard English appropriately</p> <p>Know how to develop socially:</p> <ul style="list-style-type: none"> <li>Working and socialising with other pupils</li> <li>Demonstrate mutual respect and tolerance of different views</li> </ul> <p>Know how to have a growth-mindset:</p> <ul style="list-style-type: none"> <li>Know that you might not have mastered it <b>yet</b></li> <li>Learn from mistakes</li> <li>Listen to feedback from adults and peers</li> </ul>	<p>In order to help ensure our Reception children's 'school readiness' and 'give them a broad range of knowledge and skills' that provide the right foundation for future learning, we introduce the term Computational Thinking in Class 1.</p> <p>Using a range of curriculum resources created by Barefoot Computing, we use a range of activities to introduce Computational Thinking in EYFS. These include a wide assortment of familiar activities such as water play, outdoor play, role-play ideas, games and challenges</p>	<p><b>Technology around us</b></p> <p>To identify technology</p> <p>To identify a computer and its main parts</p> <p>To use a mouse in different ways</p> <p>To use a keyboard to type</p> <p>To use the keyboard to edit text</p> <p>To create rules for using technology responsibly</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Information technology around us</b></p> <p>To recognise the uses and features of information technology</p> <p>To identify information technology in the home</p> <p>To identify information technology beyond school</p> <p>To explain how information technology benefits us</p> <p>To show how to use information technology safely</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Connecting Computers</b></p> <p>To explain how digital devices function</p> <p>To identify input and output devices</p> <p>To recognise how digital devices can change the way we work</p> <p>To explain how a computer network can be used to share information</p> <p>To explore how digital devices can be connected</p> <p>To recognise the physical components of a network</p>	<p><b>The internet</b></p> <p>To describe how networks physically connect to other networks</p> <p>To recognise how networked devices make up the internet</p> <p>To outline how websites can be shared via the World Wide Web</p> <p>To describe how content can be added and accessed on the World Wide Web</p> <p>To evaluate the consequences of unreliable content</p>	<p><b>Sharing information</b></p> <p>To explain that computers can be connected together to form systems</p> <p>To recognise the role of computer systems in our lives</p> <p>To recognise how information is transferred over the internet</p> <p>To explain how sharing information online lets people in different places work together</p> <p>To contribute to a shared project online</p> <p>To evaluate different ways of working together online</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Communication</b></p> <p>To identify how to use a search engine</p> <p>To describe how search engines select results</p> <p>To describe how search engines select results</p> <p>To explain how search results are ranked</p> <p>To recognise why the order of results is important, and to whom</p> <p>To recognise how we communicate using technology</p> <p>To evaluate different methods of online communication</p> <p><b>ONLINE SAFETY</b></p>
		<p>Technology, Computer, mouse/trackpad, keyboard, screen, click, drag, draw, double-click, click and drag, Input device,</p>	<p>Information technology (IT), barcode, scanner/scan</p>	<p>Digital device, input, output, process, Program, Connection, network, network switch, server, wireless access point (WAP)</p>	<p>Internet, network, router, network security, router, website, web page, web address, routing, route tracing, browser, World Wide Web, links, files, download</p>	<p>System, connection, digital, input, process, output, protocol, address, packet, chat, explore, slide deck</p>	<p>search engine, refine, index, bot, ranking, search engine optimisation, links, web crawlers, content creator, selection, ranking, one-way, two-way, one-to-one, one-to-many</p>

Component: Creating Media						
Class 1	Class 2		Class 3		Class 4	
Reception Expected	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected
<p>In order to help ensure our Reception children's 'school readiness' and 'give them a broad range of knowledge and skills' that provide the right foundation for future learning, we introduce the term Computational Thinking in Class 1.</p> <p>Using a range of curriculum resources created by Barefoot Computing, we use a range of activities to introduce Computational Thinking in EYFS. These include a wide assortment of familiar activities such as water play, outdoor play, role-play ideas, games and challenges</p>	<p><b>Digital writing</b> To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer To make careful choices when changing text To explain why I used the tools that I chose To compare writing on a computer with writing on paper</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Digital photography</b> To know what devices can be used to take photographs To use a digital device to take a photograph To describe what makes a good photograph To decide how photographs can be improved To use tools to change an image To recognise that images can be changed</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Stop-frame animation</b> To explain that animation is a sequence of drawings or photographs To relate animated movement with a sequence of images To plan an animation To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Photo editing</b> To explain that digital images can be changed To change the composition of an image To describe how images can be changed for different uses To make good choices when selecting different tools To recognise that not all images are real To evaluate how changes can improve an image</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Video editing</b> To recognise video as moving pictures, which can include audio To identify digital devices that can record video To capture video using a digital device To recognise the features of an effective video To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Web page creation</b> To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright) To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people</p> <p><b>ONLINE SAFETY</b></p>
	<p>Word processor, keyboard, keys, undo, backspace, toolbar, bold, italic, underline, Microsoft Word, Google Docs</p>	<p>Natural lighting, artificial lighting, flash, focus, background, foreground, format, framing, lighting, focus, filter, changed, real</p>	<p>Setting, character, events, stop frame animation, onion skinning, media, import, transition</p>	<p>Image, adjustments, effects, colours, hue/saturation, sepia, save, version, illustrator, vignette</p>	<p>Export, computer, Microsoft Movie Maker, split, trim/clip, edit, titles, end credits, timeline, transitions, audio, soundtrack, content, retake/reshoot</p>	<p>Hyperlink, evaluate, website, web page, implication, external link, embed</p>

Component: Data & Information						
Class 1	Class 2		Class 3		Class 4	
Reception Expected	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected
<p>In order to help ensure our Reception children's 'school readiness' and 'give them a broad range of knowledge and skills' that provide the right foundation for future learning, we introduce the term Computational Thinking in Class 1.</p> <p>Using a range of curriculum resources created by Barefoot Computing, we use a range of activities to introduce Computational Thinking in EYFS. These include a wide assortment of familiar activities such as water play, outdoor play, role-play ideas, games and challenges</p>	<p><b>Grouping data</b> To label objects To identify that objects can be counted To describe objects in different ways To count objects with the same properties To compare groups of objects To answer questions about groups of objects</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Pictograms</b> To recognise that we can count and compare objects using tally charts To recognise that objects can be represented as pictures To create a pictogram To select objects by attribute and make comparisons To recognise that people can be described by attributes To explain that we can present information using a computer</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Branching databases</b> To create questions with yes/no answers To identify the object attributes needed to collect relevant data To create a branching database To identify objects using a branching database To explain why it is helpful for a database to be well structured To compare the information shown in a pictogram with a branching database</p>	<p><b>Data logging</b> To explain that data gathered over time can be used to answer questions To use a digital device to collect data automatically To explain that a data logger collects 'data points' from sensors over time To use data collected over a long duration to find information To identify the data needed to answer questions To use collected data to answer questions</p> <p><b>ONLINE SAFETY</b></p>	<p><b>Flat-file databases</b> To use a form to record information To compare paper and computer-based databases To outline how grouping and then sorting data allows us to answer questions To explain that tools can be used to select specific data To explain that computer programs can be used to compare data visually To apply my knowledge of a database to ask and answer real-world questions</p>	<p><b>Spreadsheets</b> To identify questions which can be answered using data To explain that objects can be described using data To explain that formula can be used to produce calculated data To apply formulas to data, including duplicating To create a spreadsheet to plan an event To choose suitable ways to present data</p>
	<p>Group, object, property, value, label, colour, data set, more, less, most, least, fewest, the same</p>	<p>Attribute, compare, tally chart, pictogram, more than, less than, most popular, least popular, conclusion</p>	<p>Branching database, attribute, value, questions, data, pictogram, compare, information, decision tree</p>	<p>Input device, sensor, data logger, analyse, review, conclusion</p>	<p>Database, record, field, graph, chart, axis, compare, filter</p>	<p>Graph, chart, evaluate, results, comparison, questions, software, tools, data, formula, calculation, data, spreadsheet, input, output, cells, cell reference</p>

Component: Programming							
	Class 1	Class 2		Class 3		Class 4	
	Reception Expected	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected
	<p>In order to help ensure our Reception children's 'school readiness' and 'give them a broad range of knowledge and skills' that provide the right foundation for future learning, we introduce the term Computational Thinking in Class 1.</p> <p>Using a range of curriculum resources created by Barefoot Computing, we use a range of activities to introduce Computational Thinking in EYFS. These include a wide assortment of</p>	<p><b><u>Introduction to animation</u></b>            To choose a command for a given purpose            To show that a series of commands can be joined together            To identify the effect of changing a value            To explain that each sprite has its own instructions            To design the parts of a project            To use my algorithm to create a program</p>	<p><b><u>Introduction to quizzes</u></b>            To explain that a sequence of commands has a start            To explain that a sequence of commands has an outcome            To create a program using a given design            To change a given design            To create a program using my own design            To decide how my project can be improved</p>	<p><b><u>Events and actions</u></b>            To explain how a sprite moves in an existing project            To create a program to move a sprite in four directions            To adapt a program to a new context            To develop my program by adding features            To identify and fix bugs in a program            To design and create a maze-based challenge</p>	<p><b><u>Repetition in games</u></b>            To develop the use of count-controlled loops in a different programming environment            To explain that in programming there are infinite loops and count controlled loops            To develop a design which includes two or more loops which run at the same time            To modify an infinite loop in a given program            To design a project that includes repetition            To create a project that includes repetition</p>	<p><b><u>Selection in quizzes</u></b>            To explain how selection is used in computer programs            To relate that a conditional statement connects a condition to an outcome            To explain how selection directs the flow of a program            To design a program which uses selection            To create a program which uses selection            To evaluate my program</p>	<p><b><u>Variables in games</u></b>            To define a 'variable' as something that is changeable            To explain why a variable is used in a program            To choose how to improve a game by using variables            To design a project that builds on a given example            To use my design to create a project            To evaluate my project</p>
	familiar activities such as water play, outdoor play, role-play ideas, games and challenges	Block, joining, command, start block, run, program, programming area, background, delete, reset, algorithm, predict	Sequence, command, outcome, predict, program, blocks, actions, sprite, project, blocks, design, sequence, modify, change	Design, code, setup, test, debug, actions, events	Repetition, forever, infinite loop, count-controlled loop, animate, costume, event block, duplicate	Organise, zoom, select, rotate, object, alignment grid, resize, handles, consistency, modify, layers, object, front, back, order	Task, algorithm, design, artwork, program, project, code, test, debug, variable, set, change, design, event