

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS/ Year 1 Year A	Busy Bodies Patterns, Logic, Decomposition, Debugging, Algorithms, Abstraction Completes a simple program on a computer. Interacts with age-appropriate computer software.		Pictograms Unit 1.3 (Information Technology) - 3 lessons Understand that data can be represented in picture format. Contribute to a class pictogram. Use a pictogram to record the results of an experiment.	Coding Unit 1.7 (Computer Science) - 6 lessons Understand what instructions are and predict what might happen when they are followed. Use code to make a computer program. Understand what object and actions are. Understand what an event is. Use an event to control an object. Begin to understand how code executes when a program is run. Understand what backgrounds and objects are. Plan and make a computer program.	Spreadsheets Unit 1.8 (Information Technology) 3 lessons Know what a spreadsheet program looks like. Locate 2Calculate in Purple Mash. Enter data into spreadsheet cells. Use 2Calculate image tools to add clipart to cells. Use 2Calculate control tools: lock, move cell, speak and count.	
Online Safety	Online Relationships: <u>I can recognise some ways in which the internet can be used to communicate.</u> <u>I can give examples of how I (might) use technology to communicate with people I know</u> <u>I can give examples of when I should ask permission to do something online and explain why this is important.</u> <u>I can explain why it is important to be considerate and kind to people online and to respect their choices.</u>		Online Bullying <u>I can describe ways that some people can be unkind online.</u> <u>I can offer examples of how this can make others feel</u> <u>I can describe how to behave online in ways that do not upset others and can give examples.</u>		Health, Well-being and Lifestyle <u>I can identify rules that help keep us safe and healthy in and beyond the home when using technology</u> <u>I can give some simple examples of these rules</u> <u>I can explain rules to keep myself safe when</u>	Privacy and Security <u>I can explain how passwords are used to protect information, accounts and devices.</u> <u>I can recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to</u>

				using technology both in and beyond the home.	school, family names). I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others.
<p>EYFS/ Year 1</p> <p>Year B</p>	<p>Boats Ahoy</p> <p>Tinkering, Patterns, Logic, Decomposition, Creating, Collaborating, Algorithms, Abstraction</p> <p>Completes a simple program on a computer. Interacts with age-appropriate computer software.</p>	<p>Grouping and Sorting Unit 1.2 (Computer Science) - 2 lessons Sort items using a range of criteria. Sort items on the computer using the 'Grouping' activities in Purple Mash.</p> <p>Lego Builders Unit 1.4 (Computer Science) - 3 lessons Compare the effects of adhering strictly to instructions to completing tasks without complete instructions. Follow and create simple instructions on the computer. Consider how the order of instructions affects the result.</p>	<p>Maze Explorers Unit 1.5 (Computer Science) - 3lessons Understand the functionality of the direction keys. Understand how to create and debug a set of instructions (algorithm). Use the additional direction keys as part of an algorithm. Understand how to change and extend the algorithm list. Create a longer algorithm for an activity. Set challenges for peers. Access peer challenges set by the teacher as 2Dos.</p>	<p>Animated Stories Unit 1.6 (Information Technology) 5 lessons Introduce e-books and the 2Create a Story tool. Add animation to a story. Add sound to a story, including voice recording and music the children have composed. Work on a more complex story, including adding backgrounds and copying and pasting pages. Share e-books on a class display board.</p>	
<p>Online Safety</p>	<p>Self-image and identity:</p> <p>I can recognise, online or offline, that anyone can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who</p>	<p>Online Reputation:</p> <p>I can identify ways that I can put information on the internet.</p>		<p>Managing Online information:</p> <p>I can talk about how to use the internet as a way</p>	<p>Copyright and Ownership:</p> <p>I can explain why work I create using technology belongs to me</p>

	<p><u>makes them feel sad, uncomfortable, embarrassed or upset.</u></p> <p><u>I can recognise that there may be people online who could make someone feel sad, embarrassed or upset.</u></p> <p><u>If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help.</u></p>	<p><u>I can recognise that information can stay online and could be copied.</u></p> <p><u>I can describe what information I should not put online without asking a trusted adult first.</u></p>	<p><u>of finding information online.</u></p> <p><u>I can identify devices I could use to access information on the internet.</u></p> <p><u>I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching.</u></p>	<p><u>I can save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content).</u></p> <p><u>I understand that work created by others does not belong to me even if I save a copy</u></p>
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<p>Year 2/3</p> <p>Year A</p>	<p>Coding Unit 3.1 (Computer Science) 6 lessons</p> <p>Understand what a flowchart is and how flowcharts are used in computer programming. Understand that there are different types of timers and select the right type for purpose. Understand how to use the repeat command. Understand the importance of nesting. Design and create an interactive scene.</p>	<p>Questioning Unit 2.4 (Information Technology) - 5 lessons</p> <p>Learn about data handling tools that can give more information than pictograms. Use yes/no questions to separate information. Construct a binary tree to identify items. Use 2Question (a binary tree database) to answer questions. Use a database to answer more complex search questions. Use the Search tool to find information.</p>	<p>Making Music Unit 2.7 (Information Technology) - 3 lessons</p> <p>Make music digitally using 2Sequence. Explore, edit and combine sounds using 2Sequence. Edit and refine composed music. Think about how music can be used to express feelings and create tunes which depict feelings. Upload a sound from a bank of sounds into the Sounds section. Record and upload environmental sounds into Purple Mash. Use these sounds to create tunes in 2Sequence.</p>	<p>Presenting Ideas Unit 2.8 (Information Technology) - 4 lessons</p> <p>Explore how a story can be presented in different ways. Make a quiz about a story or class topic. Make a fact file on a non-fiction topic. Make a presentation to the class.</p>	<p>Spreadsheets Unit 3.3 (Information Technology) 3 lessons</p> <p>Use the symbols more than, less than and equal to, to compare values. Use 2Calculate to collect data and produce a variety of graphs. Use the advanced mode of 2Calculate to learn about cell references.</p>	<p>Simulations Unit 3.7 (Information Technology) 3 lessons</p> <p>Consider what simulations are. Explore a simulation. Analyse and evaluate a simulation.</p> <p>Graphing Unit 3.8 (Information Technology) 2 lessons</p> <p>Enter data into a graph and answer questions. Solve an investigation and present the results in graphic form.</p>
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<p>Online Safety Year 2/3 Year A</p>	<p>Online Relationships: <u>I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country).</u></p> <p><u>I can explain who I should ask before sharing things about myself or others online.</u></p> <p><u>I can identify who can help me if something happens online without my consent.</u></p>	<p>Online Relationships: <u>I can explain what it means to 'know someone' online and why this might be different from knowing someone offline.</u></p> <p><u>I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with.</u></p> <p><u>I can explain why someone may change their mind about trusting anyone with something if they feel</u></p>	<p>Online Bullying <u>I can explain what bullying is, how people may bully others and how bullying can make someone feel.</u></p> <p><u>I can explain why anyone who experiences bullying is not to blame.</u></p> <p><u>I can talk about how anyone experiencing bullying can get help.</u></p>	<p>Online Bullying <u>I can describe appropriate ways to behave towards other people online and why this is important.</u></p> <p><u>I can give examples of how bullying behaviour could appear online and how someone can get support.</u></p>	<p>Health, Well-being and Lifestyle <u>I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.</u></p> <p><u>I can say how those rules / guides can help anyone accessing online technologies</u></p> <p><u>I can explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples of both positive and negative activities where it is easy to spend</u></p>	<p>Privacy and Security <u>I can explain how passwords can be used to protect information, accounts and devices.</u></p> <p><u>I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult.</u></p>
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		<p>nervous, uncomfortable or worried.</p> <p>I can explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline e.g. sharing images and videos.</p>			<p>a lot of time engaged</p> <p>I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming on web sites).</p>	
Year 2/3 Year B	<p>Spreadsheets Unit 2.3 (Information Technology) 4 lessons Use 2Calculate image, lock, move cell, speak and count tools to make a counting machine. Learn how to copy and paste in 2Calculate. Use the totalling tools. Use a spreadsheet for money calculations.</p>	<p>Creating Pictures Unit 2.6 (Information Technology) 5 lessons Learn the functions of the 2Paint a Picture tool. Learn about and recreate the Impressionist style of art (Monet, Degas, Renoir). Recreate Pointillist art and look at the work of pointillist artists such as</p>	<p>Touch Typing Unit 3.4(Information Technology) 4 lessons Introduce typing terminology. Understand the correct way to sit at the keyboard. Learn how to use the home, top and bottom row keys. Practise typing with the left and right hand.</p>	<p>Branching Databases Unit 3.6(Information Technology) 4 lessons Sort objects using just 'yes' or 'no' questions. Complete a branching database using 2Question. Create a branching database of the children's choice.</p>	<p>Coding Unit 2.1 (Computer Science) - 6 lessons Understand what an algorithm is. Create a computer program using an algorithm. Create a program using a given design. Understand the collision detection event. Understand that algorithms follow a sequence.</p>	<p>Presenting with Google Slides Unit 3.9 (Information Technology) 6 lessons Understand the purpose of the Slides tool. Add slides to presentations. Add media to presentations. Format text appropriately. Add shapes and lines to</p>

	Use the 2Calculate equals tool to check calculations. Use 2Calculate to collect data and produce a graph.	Seurat. Learn about the work of Piet Mondrian and recreate the style using the lines template. Learn about the work of William Morris and recreate the style using the patterns template. Explore surrealism and eCollage.			Design an algorithm that follows a timed sequence. Understand that different objects have different properties. Understand what different events do in code. Understand the function of buttons in a program. Understand and debug simple programs.	enhance a presentation. Use the skills learnt to design and create an engaging presentation.
Online Safety Year 2/3 Year B	<p>Self-Image and Identity</p> <p>I can explain how other people may look and act differently online and offline.</p> <p>I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can</p>	<p>Self-Image and Identity</p> <p>I can explain what is meant by the term 'identity'.</p> <p>I can explain how people can represent themselves in different ways online</p> <p>I can explain ways in which someone might</p>	<p>Online Reputation:</p> <p>I can explain how information put online about someone can last for a long time.</p> <p>I know who to talk to if something has been put online without consent or if it is incorrect.</p>	<p>Online Reputation:</p> <p>I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal.</p> <p>I can explain who someone can ask if they are unsure about putting something online.</p>	<p>Managing Online information:</p> <p>I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).</p> <p>I can explain the difference</p>	<p>Copyright and ownership:</p> <p>I can recognise that content on the internet may belong to other people.</p> <p>I can describe why other people's work belongs to them</p> <p>I can explain why copying someone else's work from the internet</p>

	give examples of how they might get help.	change their identity depending on what they are doing online (e.g. gaming: using an avatar; social media) and why.			between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real' I can demonstrate how to use key phrases in search engines to gather accurate information online.	without permission isn't fair and can explain what problems this might cause.
Year 4/5/6 Year A	<p>Making Music Unit 4.9(Information Technology) 4 lessons Identify and discuss the main elements of music. Understand and experiment with rhythm and tempo. Create a melodic phrase. Electronically compose a piece of music.</p> <p>Logo Unit 4.5 (Computer Science)</p>	<p>Coding Unit 5.1 (Computer Science) 6 lessons Begin to simplify code. Create a playable game. Understand what a simulation is. Program a simulation using 2Code. Know what decomposition and abstraction are in computer science. Take a real-life situation, decompose it and think about the level of</p>	<p>Spreadsheets Unit 5.3 (Information Technology) 6 lessons Use formulae within a spreadsheet to convert measurements of length and distance. Use the count tool to answer hypotheses about common letters in use. Use a spreadsheet to model a real life problem. Use formulae to calculate area and perimeter of shapes. Create formulae that use text variables. Use a spreadsheet to help plan a school cake sale.</p>	<p>Game Creator Unit 5.5 (Computer Science) 5 lessons Plan a game. Design and create the game environment. Design and create the game quest. Finish and share the game. Self and peer evaluate.</p>	<p>Coding Unit 6.1 (Computer Science) 6 lessons or Microbit coding and programming unit of work Design a playable game with a timer and a score. Plan and use selection and variables. Understand how the launch command works. Use functions and understand why they are useful. Understand how</p>	<p>Blogging Unit 6.4 (Information Technology) 4 lessons Identify the purpose of writing a blog. Identify the features of a successful blog. Plan the theme and content for a blog. Understand how to write a blog and a blog post. Consider the effect upon the audience of changing the visual properties of the blog. Understand how to contribute</p>

	<p>4 lessons</p> <p>Learn the structure of the coding language of Logo. Input simple instructions in Logo. Using 2Logo to create letter shapes. Use the Repeat function in Logo to create shapes. Use and build procedures in Logo.</p>	<p>abstraction.</p> <p>Understand how to use friction in code. Begin to understand what a function is and how functions work in code. Understand what the different variables types are and how they are used differently. Understand how to create a string. Understand what concatenation is and how it works.</p>			<p>functions are created and called. Use flowcharts to create and debug code. Create a simulation of a room in which devices can be controlled. Understand how user input can be used in a program. Understand how 2Code can be used to make a text-adventure game.</p>	<p>to an existing blog. Understand how and why blog posts are approved by the teacher. Understand the importance of commenting on blogs.</p>
<p>Online Safety Year 4/5/6 Year A</p>	<p>Online Relationships:</p> <p>I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms)</p> <p>I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault.</p>	<p>Online Relationships:</p> <p>I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.</p>	<p>Online Bullying</p> <p>I can recognise when someone is upset, hurt or angry online.</p> <p>I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).</p> <p>I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.</p> <p>I can explain how anyone can get help if</p>	<p>Online Bullying</p> <p>I can explain how to block abusive users.</p> <p>I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.</p> <p>I can explain how someone would report online bullying in different contexts.</p>	<p>Health, Well-being and Lifestyle</p> <p>I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time.</p> <p>I can describe ways technology can affect health and well-being both positively (e.g.</p>	<p>Privacy and Security</p> <p>I can explain that internet use is never fully private and is monitored, e.g. adult supervision.</p> <p>I can explain what a strong password is and demonstrate how to create one.</p> <p>I can describe simple ways to increase privacy on apps and services that provide privacy settings.</p>

	<p>I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups).</p> <p>I can explain how someone can get help if they are having problems and identify when to tell a trusted adult.</p>	<p>I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs.</p> <p>I can explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.</p>	<p>they are being bullied online and identify when to tell a trusted adult.</p> <p>I can identify a range of ways to report concerns and access support both in school and at home about online bullying.</p>		<p>mindfulness apps) and negatively.</p> <p>I can describe some strategies, tips or advice to promote health and wellbeing with regards to technology.</p> <p>I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this.</p>	<p>I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).</p>
<p>Year 4/5/6</p> <p>Year B</p>	<p>Hardware Investigators Unit 4.8 (Computer Science) 2 lessons</p> <p>Understand the different parts that make up a computer. Recall the different parts that make up a computer.</p>	<p>3D Modelling Unit 5.6 (Information Technology) 4 lessons</p> <p>To be introduced to 2Design and Make and the skills of computer aided design. Explore the effect of moving points</p>	<p>Concept Maps Unit 5.7 (Information Technology) 4 lessons</p> <p>Understand the need for visual representation when generating and discussing complex ideas. Understand the uses of a 'concept map'. Understand and use the correct vocabulary when creating a concept map.</p>	<p>Networks Unit 6.6 (Computer Science) 3 lessons</p> <p>Learn about what the Internet consists of. Find out what a LAN and a WAN are. Find out how the Internet is accessed in school. Research and find out about the age of the Internet. Think about what</p>	<p>Understanding Binary Unit 6.8 (Computer Science) 4 lessons</p> <p>Examine how whole numbers are used as the basis for representing all types of data in digital systems. Recognise that</p>	<p>Text Adventures Unit 6.5 (Computer Science) 5 lessons</p> <p>Find out what a text adventure is. Use 2Connect to plan a story adventure. Make a story-based adventure using 2Create a Story. Read and understand given</p>

	<p>Effective Search Unit 4.7 (Information Technology) 3 lessons</p> <p>Locate information on the search results page. Use search effectively to find out information. Assess whether an information source is true and reliable.</p>	<p>when designing. Design a 3D Model to fit certain criteria. Refine and print a model.</p>	<p>Create a concept map. Understand how a concept map can be used to retell stories and information. Create a collaborative concept map and present this to an audience.</p>	<p>the future might hold.</p> <p>BBC Microbits programming</p>	<p>digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems). Understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics.</p>	<p>code for a text adventure game. Debug and improve a text adventure game.</p>
<p>Online Safety Year 4/5/6 Year B</p>	<p>Self-Image and Identity</p> <p>I can explain how my online identity can be different to my offline identity.</p> <p>I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.</p>	<p>Self-Image and Identity</p> <p>I can demonstrate how to make responsible choices about having an online identity, depending on context.</p> <p>I can identify and critically evaluate online content relating to gender, race,</p>	<p>Online Reputation:</p> <p>I can describe how to find out information about others by searching online.</p> <p>I can explain ways that some of the information about anyone online could have been created, copied or shared by others.</p> <p>I can search for information about an individual online and</p>	<p>Online Reputation:</p> <p>I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect</p> <p>I can explain the ways in which anyone can develop a positive online reputation.</p> <p>I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.</p>	<p>Managing Online information:</p> <p>I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites).</p>	<p>Copyright and ownership:</p> <p>When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.</p> <p>I can give some simple examples of content which I must not use without</p>

	<p><u>I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.</u></p> <p><u>I can explain how identity online can be copied, modified or altered.</u></p>	<p><u>religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online.</u></p> <p><u>I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.</u></p> <p><u>I can explain the importance of asking until I get the help needed.</u></p>	<p><u>summarise the information found.</u></p>		<p><u>I can explain how to use search technologies effectively.</u></p> <p><u>I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.</u></p> <p><u>I can explain what is meant by the term 'stereotype', how 'stereotypes' are amplified and reinforced online, and why accepting 'stereotypes' may influence how people think about others.</u></p> <p><u>I can identify, flag and report inappropriate content.</u></p>	<p><u>permission from the owner, e.g. videos, music, images.</u></p> <p><u>I can give examples of content that is permitted to be reused and know how this content can be found online.</u></p>
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