



Bramford
PRIMARY SCHOOL

Computing Long Term Plan



Computing Long Term Plan

Autumn 1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Question	What are the SMART rules?	What are the SMART rules?	What are the SMART rules?	What are the SMART rules?	What are the SMART rules?	What are the SMART rules?
Key Content	Online safety And exploring Purple Mash Grouping and Sorting	Unit 2.1 Coding – 2Code, Crash Course	- ONLINE SAFETY - Coding –Crash Course Coding	Unit 4.1 Coding - 2Code Unit 4.2 Online safety	Online safety and safer internet use Word processing Coding	Networks Binary
Skills	<ul style="list-style-type: none"> • To log in safely. • To learn how to find saved work in the Online Work area and find teacher comments. • To learn how to search Purple Mash to find resources. • To become familiar with the icons and types of resources available in the Topics section. • To start to add pictures and text to work. • To explore the Tools and Games section of Purple Mash. • To learn how to open, save and print. • To understand the importance of logging out. • To sort items using a range of criteria. • To sort items on the computer using the 'Grouping' activities in Purple Mash. 	<ul style="list-style-type: none"> • To understand what an algorithm is. • To create a computer program using an algorithm. • To create a program using a given design. • To understand the collision detection event. • To understand that algorithms follow a sequence. • To design an algorithm that follows a timed sequence. • To understand that different objects have different properties. • To understand what different events do in code. • To understand the function of buttons in a program. • To understand and debug simple programs. 	<ul style="list-style-type: none"> • 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. • To know what makes a safe password. • To learn methods for keeping passwords safe. • To understand how the Internet can be used in effective communication. • To understand how a blog can be used to 	<ul style="list-style-type: none"> • To begin to understand selection in computer programming. • To understand how an IF statement works. • To understand how to use co-ordinates in computer programming. • To understand the 'repeat until' command. • To understand how an IF/ELSE statement works. • To understand what a variable is in programming. • To use a number variable. • To create a playable game. To understand how children can protect themselves from online identity theft. • To understand that information put online leaves a digital 	<ul style="list-style-type: none"> • To begin to simplify code. • To create a playable game. • To understand what a simulation is. • To program a simulation using 2Code. • To know what decomposition and abstraction are in computer science. • To take a real-life situation, decompose it and think about the level of abstraction. • To understand how to use friction in code. To begin to understand what a function is and how functions work in code. • To understand what the different variables types are and how they are used differently. • To understand how to create a string. 	<ul style="list-style-type: none"> • To learn about what the Internet consists of. • To find out what a LAN and a WAN are. • To find out how the Internet is accessed in school. • To research and find out about the age of the Internet. • To think about what the future might hold.

			<p>communicate with a wider audience.</p> <ul style="list-style-type: none"> • To consider the truth of the content of websites. • To learn about the meaning of age restrictions symbols on digital media and devices. 	<p>footprint or trail and that this can aid identity theft.</p> <ul style="list-style-type: none"> • To identify the risks and benefits of installing software including apps. • To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. • To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. • To identify the positive and negative influences of technology on health and the environment. • To understand the importance of balancing game and screen time with other parts of their lives. 	<ul style="list-style-type: none"> • To understand what concatenation is and how it works. • To gain a greater understanding of the impact that sharing digital content can have. • To review sources of support when using technology and children's responsibility to one another in their online behaviour. • To know how to maintain secure passwords. • To understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this. • To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. • To learn about how to reference sources in their work. • To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the 	
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					impact of incorrect information. To ensure reliability through using different methods of communication.	
Suggested Outcome	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	<p>Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.</p> <p>Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps.</p> <p>Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause</p>	<p>Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.</p> <p>Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command</p>	<p>Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.</p> <p>When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their own programs.</p> <p>Children's use of timers to achieve repetition effects are becoming more logical and are</p>	<p>Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.</p> <p>Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions</p>	<p>Children understand and can explain in some depth the difference between the internet and the World Wide Web.</p> <p>Children know what a WAN and LAN are and can describe how they access the Internet in school.</p>

		and effect sentence of what will happen in a program.	<p>when creating repetition effects.</p> <p>Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, repetition and use of timers. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this. e.g. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.</p> <p>Children can carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or internet-wide search engines.</p>	<p>integrated into their program designs. They understand 'IF statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.</p> <p>Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'IF' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts</p>	<p>using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.</p> <p>Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.</p> <p>Children may attempt to turn more complex reallife situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.</p> <p>Children can translate algorithms that</p>	
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				to correct this. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.	include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design. When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables	
Subject Specific Vocabulary	<ul style="list-style-type: none"> • Alert: A system that lets you know if you have something to look at. • Avatar: A digital picture to represent someone. • Button: An area where you click to make something happen. • Device: A piece of electrical equipment made for a purpose. • File Name: The name given to an online piece of work. • Filter: A way of removing 	<ul style="list-style-type: none"> • Action: The way that objects change when programmed to do so. For example, move. • Algorithm: a precise, step-by-step set of instructions used to solve a problem or achieve an objective. • Background: In 2Code the 	<ul style="list-style-type: none"> • Action: The way that objects change when programmed to do so. For example, move or change a property. • Alert: This is a type of output. It shows a pop up of text on the screen. • Algorithm: a precise, step-by-step set of 	<ul style="list-style-type: none"> • Action: The way that objects change when programmed to do so. For example, move. • Alert: This is a type of output. It shows a pop up of text on the screen. • Algorithm: a precise, step-by-step set of instructions used to solve a problem 	<ul style="list-style-type: none"> Abstraction: Abstraction is a way of de-cluttering and removing unnecessary details to get a program functioning. • Action: The way that objects change when programmed to do so. For example, move. • Algorithm: a precise, step-by-step set of 	<ul style="list-style-type: none"> • Data: A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making. • DNS (Domain Name Server): The system

<p>information you are not interested in.</p> <ul style="list-style-type: none"> • Home Screen: The home screen of a website is like the front page and contents page of a book. • Icon: An image on a web page that you can click on to navigate to somewhere. • Login: Using a username and password to access a system. • Log out: Leaving a computer system. • Menu: A button which gives the user different options. • My Work Area: The place on Purple Mash where your work is stored. Only you and your teachers can access this. • Notification: A message telling you about something. • Password: A series of letters, numbers and special characters that is entered after the username to access an online site. In Purple Mash, this can also be a series of pictures. • Private: Keeping information restricted from other people. • Purple Mash Tools: A selection of programs which help you carry out different tasks. • Saving: Store your work as you create something so it can be accessed later. • Search: A way of finding specific resources you want to look at. • Shared Folder: An area to save your work that everyone in the class 	<p>background is an image in the design that does not change.</p> <ul style="list-style-type: none"> • Bug: A problem in a computer program that stops it working the way it was designed. • Button: A type of object that responds to being clicked on. • Click events: An event that is triggered when the user clicks on an object. • Collision detection: In 2Code, this measures whether 2 objects have touched each other. • Collision detection action: The action that is programmed to happen once the objects collide. • Collision detection event: The event of two objects colliding. • Command: A single instruction in 2Code. • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed to. • Event: An occurrence that causes a block of code to be run. The event could 	<p>instructions used to solve a problem or achieve an objective.</p> <ul style="list-style-type: none"> • Background: In 2Code the background is an image in the design that does not change. • Bug: A problem in a computer program that stops it working the way it was designed. • Button: A type of object that responds to being clicked on. • Click events: An event that is triggered when the user clicks on an object. • Code: Writing the code for a computer program. • Collision detection event: The event of two objects colliding. • Command: A single instruction in 2Code. • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed to. • Degrees: A measurement of a turn. A full turn has 360 degrees; written as 360°. • Event: An occurrence that causes a block of code 	<p>or achieve an objective.</p> <ul style="list-style-type: none"> • Background: In 2Code the background is an image in the design that does not change. • Button: A type of object that responds to being clicked on. • Code blocks: A way to write code using blocks which each have an object or an action. • Command: A single instruction in 2Code. • Co-ordinates: Numbers which determine the position of a point, shape or object in a particular space. • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed to. • Design: In coding, this is a plan for the program showing the visual look of the user interface (the screen) with the objects. The algorithm can be represented as part of the design, showing actions and events. 	<p>instructions used to solve a problem or achieve an objective.</p> <ul style="list-style-type: none"> • Command: A single instruction in 2Code. • Concatenation: The action of linking a mixture of strings, variable values and numbers together in a series. • Co-ordinates: Numbers which determine the position of a point, shape or object in a particular space. • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed. • Decomposition: A method of breaking down a task into manageable components. This makes coding easier as the components can then be coded separately and then brought back together in the program. • Efficient: In coding, simplified code runs faster and uses less processing memory, it is said to be more efficient. 	<p>that automatically translates internet addresses to the numeric machine addresses that computers use.</p> <ul style="list-style-type: none"> • Ethernet: A system for connecting several computer systems to form a local area network. • Hosting: Where a website or other piece of information is stored. • Hub\Switch: The connection point for networks where data packets from many locations converge and are then sent out to different devices. • Internet: A global computer network providing a variety of information and communication facilities consisting of interconnected networks using standardized communication protocols. • IP address: A unique string of characters that identifies each computer using the Internet Protocol to communicate over a network.
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	<p>can use.</p> <ul style="list-style-type: none"> • Textbox: A box in which to add words. • Think About Box: Information in a writing template which give you ideas on what to write. • Topic Area: A place on Purple Mash where you find activities all about something you are learning about. • Tool bar: A strip of icons that can be clicked to perform different functions. • Typing: The action of writing something on a computer. • Writing Template: A guide which a writer follows when doing some writing. 	<p>be the result of user action such as the user pressing a key or clicking the screen. In 2Code, the event commands are used to create blocks of code that are run when events happen.</p> <ul style="list-style-type: none"> • Execute: This is the proper word for when you run the code. We say, 'the program (or code) executes.' • Image: A picture • Implement: When a design is turned into a program using coding. • Instructions: detailed information about how something should be done or operated. • Interaction: When objects perform actions in response to each other e.g. a frog turning into a monkey when it collides with a tree. • Interval: In a timer, this is the length of time between the timer code running and the next time it runs e.g. every 1 second. • Object: Items in a program that can be 	<p>to be run. The event could be the result of user action such as the user pressing a key (when Key) or clicking or swiping the screen (when Clicked, when Swiped). In 2Code, the event commands are used to create blocks of code that are run when events happen.</p> <ul style="list-style-type: none"> • Flowchart: A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram. • Implement: When a design is turned into a program using coding. • Input: Information going into the computer. Can include moving or clicking the mouse, using the keyboard, swiping and tilting the device. • Interval: In a timer, this is the length of time between the timer code running and the next time it runs e.g. every 1 second. 	<ul style="list-style-type: none"> • Event: An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key (when Key) or clicking or swiping the screen (when Clicked, when Swiped). In 2Code, the event commands are used to create blocks of code that are run when events happen. • Execute: This is the proper word for when you run the code. We say, 'the program (or code) executes.' • Flowchart: A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram. • 'If' statement: A computer uses an IF statement to decide which bit of code to run. IF a condition is true, then the commands inside the block will be run. • 'If/Else' statement: A conditional 	<ul style="list-style-type: none"> • Event: An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key (when Key) or clicking or swiping the screen (when Clicked, when Swiped) or when objects interact (collision). In 2Code, the event commands are used to create blocks of code that are run when events happen. • Flowchart: A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram. • Friction: The resistance that one surface or object encounters when moving over another. • Function: A block or sequence of code that you can access when you need it, so you don't have to rewrite the code repeatedly. Instead, you simply call the 	<ul style="list-style-type: none"> • ISP (Internet Service Provider): A company that provides subscribers with access to the internet. • LAN (Local Area Network): A computer network that links devices within a building or group of adjacent buildings, especially one with a radius of less than 1 km. • of adjacent buildings, especially one with a radius of less than 1 km. • Network: Several interconnected computers, machines, or operations. • Router: A device which forwards data packets to the appropriate parts of a computer network. • Search engine: A program that searches for and identifies items in a database that correspond to keywords or characters specified by the user, used especially for finding particular sites on the World Wide Web.
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		given instructions to move or change in some way (action).	<ul style="list-style-type: none"> • Nest: When coding commands are put inside other commands. These commands only run when the outer command runs. • Object: Items in a program that can be given instructions to move or change in some way (action). In 2Code Gibbon, these include character, turtle, button, vehicle, animal, food, shape, number, input and label. • Predict: Use your understanding of a situation to say what will happen in the future or will be a consequence of something. • Properties: These determine the look and size of an object. Each object has properties such as the image, scale and position of the object. 	<p>command. This tests a statement. If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else block' are run.</p> <p>• Input: Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device.</p>	<p>function each time you want it.</p> <p>• Input: Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device.</p>	<ul style="list-style-type: none"> • WAN (Wide Area Network): A collection of local-area networks (LANs) or other networks that communicate with one another over a large physical area or even globally. • Web Page: A document on the World Wide Web. • Web server: Software and hardware that uses HTTP (Hypertext Transfer Protocol) and other protocols via the World Wide Web. • Website: a set of related web pages located under a single domain name, typically produced by a single person or organization.
Theme Specific Vocabulary	<ul style="list-style-type: none"> • Activities: Tasks you do and complete. • Criteria: A way in which something is judged. • Describe: To give a detailed account of something. • Equal: When two amounts are the same. • Groups: Objects arranged 		<ul style="list-style-type: none"> • Appropriate: When using online services such as blogging or sharing information. It's important that users behave appropriately. Users should be truthful, 	AdFly: An online advertising marketplace that allows publishers to monetize their website traffic by placing	<ul style="list-style-type: none"> • Appropriate: Suitable or proper in the circumstances. • Avatar: Avatars are images that are meant to represent someone. Because 	<ul style="list-style-type: none"> • Binary: A number system in which there are two separate integers that can be used to make all numbers. This is also called the base 2. • Bit: A single 0 or 1 is

	<p>and put together because they have features in common. • Less than: When an amount is smaller than another amount. • More than: When an amount is bigger than another amount. • Sort: Put things together by features they have in common.</p>		<p>respectful, kind, seek any permissions and report anything they feel uncomfortable with. • Blog: A regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style. • Inappropriate: Behaviour or content online that is upsetting, rude, unkind or makes someone feel unsafe or concerned. • Internet: A global computer network providing a variety of information and communication facilities, consisting of interconnected networks and computers. • Password: A secret word, phrase or combination of letters, numbers and symbols that must be used to gain admission to a site or application such as a website. • Personal information: This is information that is personal to someone. For example, their favourite food, their</p>	<p>advertisements on their site. • Attachment: A file, which could be a piece of work or a picture, that is sent with an email. • Citation: Making reference to the original source of a piece of information quotation or image. • Collaborate: To work jointly on an activity or project. • Collaborative database: A collaborative database allows more than one person to access and input data on the database. • Cookies: A small amount of data generated by a website and saved by a web browser. Its purpose is to remember information about the user. • Copyright: When the rights to something belong to a specific person. • Data analysis: The process of interpreting and understanding data that has been collected and organised.</p>	<p>they aren't photos of someone, they are considered a safer alternative than a profile picture online. • Bibliography: A list of all the books and articles used in a piece of work. • Citation: A quotation from or reference to a book, paper, or author, especially in an academic work. • Collaborate: To work jointly on an activity or project. • Communication: A way of exchanging information for example, email, blogs, speaking, writing. • Copyright: When the rights to something belong to a specific person. • Creative commons licence: Creative Commons (CC) is a non-profit organisation who provide free licences for creators to use. If an image has a CC licence, you may usually use the image for non-commercial purposes. You must still give credit to the original creator</p>	<p>called a bit. This word comes from 'Binary Digit'. • Decimal: A fraction whose denominator is a power of ten and whose numerator is expressed by figures placed to the right of a decimal point. • Denary: A number system in which there are ten separate integers that can be used to make all numbers. This is also called the base 10 and decimal system. • Digit: A single integer used to show a number. • Game States: How states within computer programs and games are often represented in code using binary values of 1 (for on) and 0 (for off). This is usually done using a variable. • Integer: Any whole number. This includes negative and positive numbers but not fractions or decimals. • Microprocessor: Known as the computer chip. It contains many transistors to pass signals. • Nanotechnology: The</p>
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			<p>name and age. • Permission: When someone shares or accesses content online, it's important that permission is given if it belongs to someone else or has information about them. • Reliable Source: A source of information that provides thorough, wellreasoned details based on valid evidence. • Reputable source: Reputable sources are known places or sites that have accurate information. For example, well known news sites or encyclopaedias. • Spoof: An imitation of something that appears to look genuine. • Verify: When seeking content online, it is important that a user verifies the information. They can do this by checking other sources and looking for signs that may indicate inaccuracy in the information. • Vlogs: A personal website or social media account where a person regularly posts short</p>	<p>• Digital footprint: The information about a person that exists on the Internet as a result of their online activity. • Malware: Software that is specifically designed to disrupt, damage, or gain unauthorized access to a computer system. • Phishing: Practice of sending email pretending to be from reputable companies in order to persuade individuals to reveal personal information, such as passwords and credit cards numbers. • Plagiarism: Taking someone else's work or ideas and passing them off as one's own. • Ransomware: A type of malicious software designed to block access to a computer system until a sum of money is paid. • Report: If content or contact online worries someone, they should report it to a trusted adult such as a teacher or parent.</p>	<p>of the image. If you do not, you could be prosecuted by the creator of the image. • Critical thinking: When online, it's important that users think critically about the content they see and anything they are being asked to do such as enter data. • Digital Footprint: The information about a person that exists on the Internet as a result of their online activity. • Encrypt: The translation of data into a secret code to achieve data security. • Identity theft: When someone pretends to be another person online. It can be done for financial gain or to steal others' private information. • Image manipulation: This is where an image has been altered often using software. • Malware: Software that is specifically designed to disrupt, damage, or gain</p>	<p>science of manipulating materials at their smallest level. At this level, the molecules of a material can be seen. • Nibble, Byte, Kilobyte, Megabyte, Gigabyte and Tetrabyte: Words used to describe numbers of bits and the computer memory space that they use. (Nibble - 4 bits, Byte - 8 bits, Kilobyte (KB) - 1024 bytes, Megabyte (MB) - 1024 KB, Gigabyte (GB) - 1024 MB, Tetrabyte (TB) - 1024 GB). • Switch: An act of changing to or adopting one thing in place of another. • Transistor: A transistor is a tiny switch that is activated by the electronic signals it receives. • Variable: A named area in computer memory. A variable has a name and a value. The program can change this variable value. Variables are used in programming to keep track of things that can change while a program is running.</p>
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			videos. • Website: A set of related web pages located under a single name.	<ul style="list-style-type: none"> • SMART rules: A set of rules based around the word SMART designed to help you stay safe when online. SMART represents the words Safe, Meet, Accept, Reliable, Tell. • Software: The programs and other operating information used by a computer. • Spam: Messages sent over the Internet, typically to many users, for the purposes of advertising, phishing or spreading malware. 	<ul style="list-style-type: none"> unauthorised access to a computer system. • Ownership: Who has permission or can give permission to use or edit a resource or part of the resource. • PEGI ratings: These show the age that digital content is suitable for and the type of content that it contains. • Phishing: The practice of sending email pretending to be from reputable companies in order to persuade individuals to reveal personal information, such as passwords and credit cards numbers. 	
Autumn 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Question	How do you stay safe online?	How do you stay safe online?	How do you stay safe online?	How do you stay safe online?	How do you stay safe online?	How do you stay safe online?
Key Content	Pictograms Lego builder	Unit 2.2 Online Safety Programs – Various Unit 2.3 Spreadsheets Programs – 2Calculate	ONLINE SAFETY – SMART Rules Spreadsheets Touch typing skills	Unit 4.3 Spreadsheets 2Calculate Unit 4.2 Online safety	Spreadsheets Online safety	Blogging
Skills	<ul style="list-style-type: none"> • To understand that data can be represented in picture format. • To contribute to a class pictogram. 	<ul style="list-style-type: none"> • To know how to refine searches using the Search tool. • To use digital technology to share work on Purple Mash to 	<ul style="list-style-type: none"> • To use the symbols more than, less than and equal to, to compare values. 	<ul style="list-style-type: none"> • To format cells as currency, percentage, decimal to different decimal places or fraction. • To use the 	<ul style="list-style-type: none"> • To use formulae within a spreadsheet to convert measurements of length and distance. • 	<ul style="list-style-type: none"> • To identify the purpose of writing a blog. • To identify the features of a successful blog. • To

	<ul style="list-style-type: none"> • To use a pictogram to record the results of an experiment. • To compare the effects of adhering strictly to instructions to completing tasks without complete instructions. • To follow and create simple instructions on the computer. • To consider how the order of instructions affects the result. 	<p>communicate and connect with others locally. • To have some knowledge and understanding about sharing more globally on the Internet. • To introduce Email as a communication tool using 2Respond simulations. • To understand how we should talk to others in an online situation. • To open and send simple online communications in the form of email. • To understand that information put online leaves a digital footprint or trail. • To identify the steps that can be taken to keep personal data and hardware secure.</p> <p>• To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine. • To learn how to copy and paste in 2Calculate. • To use the totalling tools. • To use a spreadsheet for money calculations. • To use the 2Calculate equals tool to check calculations. • To use 2Calculate to collect data and produce a graph.</p>	<ul style="list-style-type: none"> • 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 introduce typing terminology. • To understand the correct way to sit at the keyboard. • To learn how to use the home, top and bottom row keys. • To practise typing with the left and right hand. 	<p>formula wizard to calculate averages. • To combine tools to make spreadsheet activities such as timed times tables tests. • To use a spreadsheet to model a reallife situation. • To add a formula to a cell to automatically make a calculation in that cell.</p>	<p>To use the count tool to answer hypotheses about common letters in use. • To use a spreadsheet to model a reallife problem. • To use formulae to calculate area and perimeter of shapes. • To create formulae that use text variables. • To use a spreadsheet to help plan a school cake sale.</p>	<p>plan the theme and content for a blog. • To understand how to write a blog and a blog post. • To consider the effect upon the audience of changing the visual properties of the blog. • To understand how to contribute to an existing blog. • To understand how and why blog posts are approved by the teacher. • To understand the importance of commenting on blogs.</p>
Suggested Outcome	Children can work out what is wrong with a simple algorithm when the steps are out of	Children demonstrate an ability to organise data using, for example, a database such as	Children can collect, analyse, evaluate and present data and information using a	Children are able to make improvements to digital solutions based on feedback.	Children are able to make appropriate improvements to digital solutions	Children make clear connections to the audience when designing and

	<p>order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.</p>	<p>2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.</p> <p>Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult.</p>	<p>selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.</p>	<p>Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.</p> <p>Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.</p>	<p>based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.</p>	<p>creating digital content. The children design and create their own blogs to become a content creator on the Internet, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.</p>
Subject Specific Vocabulary	<ul style="list-style-type: none"> • Collect Data: Gathering facts and information. • Compare: Looking at what is the same and what is different. • Data: A collection of information, used to 	<ul style="list-style-type: none"> • Attachment: A computer file sent with an email. • Digital footprint: The information about a person that exists on the Internet as a result of their online activity. • Display Board: In Purple Mash, 	<ul style="list-style-type: none"> • Advanced Mode: A mode of 2Calculate in which the cells have references and can include formulae. • Bar graph: A chart that uses bars to show quantities or 	<ul style="list-style-type: none"> • Average: A number expressing the typical value in a set of data. Also known as the mean. It is calculated by dividing the sum of the values in the set by 	<ul style="list-style-type: none"> • Advance Mode: A mode in 2Calculate in which the cells have references and can include formulae. • Area: This is the term used to describe 	<ul style="list-style-type: none"> • Approval: The act of acknowledging something is appropriate. • Archive: In this case, where older blog or vlog posts are stored. • Blog: A regularly

	<p>help answer questions. • Pictogram: A diagram that uses pictures to represent data. • Record Results: Writing down what you have found out. • Title: The name given to a piece of work. • Totals: The whole number or amount of something. • Visual: Using your eyes to see something.</p>	<p>this is a tool that enables you to share work with a wide audience. • Email: Messages distributed by electronic means from one computer user to one or more people. • Filter: A feature of search engines, where a user can filter results according to criteria. For example, news, date published. • Identifying: It's important that any information shared online doesn't have details that can identify someone such as their name and address. • Internet: A way to send information from one computer to another anywhere in the world using technology such as phones, satellites and radio links. • Personal information: This is information that is personal to someone. For example, their favourite food, their name and age. • Private information: This is personal information that should be kept secure. For example, their date of birth, their full address, credit card numbers. • Protection: Some places like schools, have systems in place that help to protect users from harmful content.</p>	<p>numbers, so they can be easily compared. • Cell address: Every cell has an address. This can be found by reading the column letter then row number. • Data: A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making. • Equals: This symbol shows that numbers or number sentences either side are equal in value. • Less than: This symbol shows that a number to the left of it has less value than one to the right. • More than: This symbol shows that a number to the left of it has greater value than one to the right. • More than, less than & Equal tool: This highlights either more than, less than or equals according to which numbers are either side of it. • Pie Chart: A circular chart divided into segments which each represent a portion of</p>	<p>their number. • Budget: The amount of money available to spend on a project. • Calculations: The process or result of adding, subtracting, multiplying, or dividing or a combination of these operations. • Chart: A diagram that represents data. Charts include graphs and other diagrams such as pie charts or flowcharts. • Column: Boxes running vertically in a spreadsheet. • Data: A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making. • Decimal place: The position of a digit to the right of a decimal point. In 2Calculate, the number of decimal places to be displayed can be chosen. • Equals to tool: This shows if an answer to a calculation is correct or not.</p>	<p>the amount of space taken up by a flat shape or surface. For example the size of a field. Simple shapes like rectangles can have area calculated by multiplying length x width. • Budget: An amount of money allocated to something. For example, the amount of money the children have been given for ingredients to make cakes for a school cake sale. • Columns: Boxes running vertically in a spreadsheet. • Computational Model: Creating or using a simulation (a model) of a real-life situation, on a computer. • Data: A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making. • Format Cell: The way that text looks. Formatting cells is helpful for</p>	<p>updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style. • Blog post: A piece of writing or other item of content published on a blog. • Collaborate: Work jointly on an activity or project. • Commenting: To express an opinion or reaction in speech or writing. • Connections: A relationship in which a person or thing is linked or associated with something else. • Nodes: a point in a diagram, in this case on 2Connect, at which lines or pathways intersect or branch. • Vlog: A personal website or social media account where a person regularly posts short videos.</p>
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		<p>However, it's important that anyone using online services should always behave carefully to help protect themselves and others. • Reply: When someone receives an email, they can send a reply using the reply button. • Search: Look for information (in a database or the World Wide Web) using a search engine. • Secure: Users online should take steps to help keep their personal and private information secure. • Sharing: Post or repost (something) on a website.</p>	<p>the total amount. • Quiz tool: This can be used after the equals sign or instead of a number in a calculation. If you input the correct answer it will disappear. • Spinner tool: This changes a number by one each time up or down is clicked. • Table: An organised display of information laid out in rows and columns.</p>	<p>• Format Cell: The way that data is displayed in a cell. For example, using units such as £ or \$.</p> <p>• Formula: A group of letters, numbers, or other symbols which represents a scientific or mathematical rule. The plural of formula is formulae.</p> <p>• Formula Wizard: The formula wizard helps a user create formulas which perform calculations on selected cells. For example, adding, multiplying, average, total.</p> <p>• Line graph: A line graph is used to display information which can change over time. For example, temperature at different times of the day.</p> <p>• Percentage: 'per' 'cent' means number of parts per hundred.</p> <p>• Place value: This is the value of each digit within a number. For example 354, the 3 = 3 hundreds, the 5 = 5 tens and the 4 = 4 ones.</p>	<p>interpreting a cell's contents for example you might want to format a cell to show a fraction e.g. $4\frac{1}{2}$ or include units such as £ or \$.</p> <p>• Formula: A group of letters, numbers, or other symbols which represents a scientific or mathematical rule. The plural of formula is formulae.</p> <p>• Formula Bar: An area of the spreadsheet into which formulae can be entered using the '=' sign to open the formula.</p> <p>• Formula Wizard: The wizard guides the user in creating a variety of formulae for a cell such as calculations, totals, averages, minimum and maximum for the selected cells.</p> <p>• 'How Many?' Tool: This tool counts how many of a variable there are in a spreadsheet.</p> <p>• Perimeter: Is the term used to describe all the sides lengths added up. For example, to work out perimeter of a</p>	
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				<ul style="list-style-type: none"> • Random number tool: This tool, when clicked, will generate a random number. • Resize: This is used to reduce or increase the size of a sheet in 2Calculate. • Row: Boxes running horizontally in a spreadsheet. • Set image: Images in 2Calculate can be given a value. For example, an apple 1 a pear 2 etc. 	<p>rectangle we can add up all its sides lengths.</p> <ul style="list-style-type: none"> • Profit: This is the amount of money that has been made after the costs of creating or doing something. For example, the amount of money there is from a cake sale when the cost of creating them has been subtracted. • Rows: Boxes running horizontally in a spreadsheet. 	
Theme Specific Vocabulary	<ul style="list-style-type: none"> • Algorithm: a precise, step-by-step set of instructions used to solve a problem or achieve an objective. • Code: Instructions that a programmer enters into a computer that cause the computer to perform a certain way. • Computer: An electronic device for storing and processing data. • Debugging: To find and remove errors from computer hardware or software. • Instructions: detailed information about how something should be done or operated. • Machine: A moving mechanical device made to do a 	<ul style="list-style-type: none"> • Addition: The add symbol can be used in a cell when numbers are in the cells either side of it to create a sum. • Block graph: This is a type of graph that displays data with blocks. These can be made using cells, colours and labels in 2Calculate. • Cell: An individual section of a spreadsheet grid. It contains data or calculations. • Coins: In 2Calculate images that represent coins and have a value can be used in spreadsheets. 	<ul style="list-style-type: none"> • Keys: buttons that are pressed on a computer keyboard or typewriter. • Posture: The position in which someone holds their body when standing or sitting. • Spacebar: The bar at the bottom of the keyboard. • Typing: The action or skill of writing something by means of a typewriter or in this case a computer. 	<ul style="list-style-type: none"> • AdFly: An online advertising marketplace that allows publishers to monetize their website traffic by placing advertisements on their site. • Attachment: A file, which could be a piece of work or a picture, that is sent with an email. • Citation: Making reference to the original source of a piece of information quotation or image. • Collaborate: To work jointly on an activity or project. 		

	<p>task, making work easier for people. • Program: An algorithm that has been coded into something that can be run by a machine, e.g., a computer or a robot. • Recipe: A set of instructions which describes how to prepare a dish of food. • Sequence: Putting things in an order which follows on from one thing to the next.</p>	<ul style="list-style-type: none"> • Column: Boxes running vertically in a spreadsheet. • Copy: This feature copies the contents of highlighted cells without deleting the contents of them into a clipboard. • Count tool: In 2Calculate, this counts the number of cells with a value of the cell to the left of the tool. • Cut: This feature removes something from selected cells and places it in a clipboard ready to be pasted. • Data: A collection of information, used to help answer questions. • Drag: Contents of a cell can be dragged to another cell using the drag tool in 2Calculate. • Equals: This symbol can be used in 2Calculate to find the answer to a calculation. • Equals tool: Tests whether the entered calculation in the cells to the left of the tool has the correct answer in the cell to the right of the tool. • Image value: Images placed in cells can have values given to them. E.g., apple 1, pear 2 etc. 		<ul style="list-style-type: none"> • Collaborative database: A collaborative database allows more than one person to access and input data on the database. • Cookies: A small amount of data generated by a website and saved by a web browser. Its purpose is to remember information about the user. • Copyright: When the rights to something belong to a specific person. • Data analysis: The process of interpreting and understanding data that has been collected and organised. • Digital footprint: The information about a person that exists on the Internet as a result of their online activity. • Malware: Software that is specifically designed to disrupt, damage, or gain unauthorized access to a computer system. • Phishing: Practice of sending email 		
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		<ul style="list-style-type: none"> • Label: A way to identify data in a spreadsheet. For example, a label heading for ice cream flavours children like. • Paste: The feature pastes anything in the clipboard into selected cells. • Price: The cost of an item or items. • Row: Boxes running horizontally in a spreadsheet • Speak tool: This tool will speak the contents of a cell containing a number each time the value changes. • Table: Tables can be created in 2Calculate, these have headings and are a neat way to display data. 		<p>pretending to be from reputable companies in order to persuade individuals to reveal personal information, such as passwords and credit cards numbers.</p> <ul style="list-style-type: none"> • Plagiarism: Taking someone else's work or ideas and passing them off as one's own. • Ransomware: A type of malicious software designed to block access to a computer system until a sum of money is paid. • Report: If content or contact online worries someone, they should report it to a trusted adult such as a teacher or parent. • SMART rules: A set of rules based around the word SMART designed to help you stay safe when online. SMART represents the words Safe, Meet, Accept, Reliable, Tell. • Software: The programs and other operating information used by a computer. 		
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				<ul style="list-style-type: none">• Spam: Messages sent over the Internet, typically to many users, for the purposes of advertising, phishing or spreading malware.		
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Spring 1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Question	What do you do if you're upset online?	What do you do if you're upset online?	What do you do if you're upset online?	What do you do if you're upset online?	What do you do if you're upset online?	What do you do if you're upset online?
Key Content	Maze Explorers	Unit 2.4 Questioning 2Question, 2Investigate	ONLINE SAFETY – SMART Rules Touch typing skills	Unit 4.4 Writing for Different Audiences Unit 4.2 Online safety	Databases Online safety	Quizzing
Skills	<ul style="list-style-type: none"> • To understand the functionality of the direction keys. • To understand how to create and debug a set of instructions (algorithm). • To use the additional direction keys as part of an algorithm. • To understand how to change and extend the algorithm list. • To create a longer algorithm for an activity. • To set challenges for peers. • To access peer challenges set by the teacher as 2Dos. 	<ul style="list-style-type: none"> • To learn about data handling tools that can give more information than pictograms. • To use yes/no questions to separate information. • To construct a binary tree to identify items. • To use 2Question (a binary tree database) to answer questions. • To use a database to answer more complex search questions. • To use the Search tool to find information. 	<ul style="list-style-type: none"> • To introduce typing terminology. • To understand the correct way to sit at the keyboard. • To learn how to use the home, top and bottom row keys. • To practise typing with the left and right hand. 	<ul style="list-style-type: none"> • To explore how font size and style can affect the impact of a text. • To use a simulated scenario to produce a news report. • To use a simulated scenario to write for a community campaign. 	<ul style="list-style-type: none"> • To learn how to search for information in a database. • To contribute to a class database. • To create a database around a chosen topic. 	<ul style="list-style-type: none"> • To create a picture-based quiz for young children. • To learn how to use the question types within 2Quiz. • To explore the grammar quizzes. • To make a quiz that requires the player to search a database. • To make a quiz to test your teachers or parents.
Suggested Outcome	When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall	Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for	Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question),	Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the	Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment	Children make clear connections to the audience when designing and creating digital content. The children design and create

	effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program.	conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.	using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.	importance of online safety. Children know a range of ways of reporting inappropriate content and contact. Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.	on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.	their own blogs to become a content creator on the Internet, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.
Subject Specific Vocabulary	<ul style="list-style-type: none"> • Algorithm: a precise, step-by-step set of instructions used to solve a problem or achieve an objective. • Challenge: A task to be completed. • Command: An action such as left command. • Delete: Removes something such as an instruction. • Direction: The path 	<ul style="list-style-type: none"> • Avatar: A digital picture to represent someone. • Binary Tree: A simple way of sorting information into two categories. • Data: A collection of information, used to help answer questions. • Database: A computerised system that makes it easy to search, select and store information. • Field: A single piece of data in a 	<ul style="list-style-type: none"> • Keys: buttons that are pressed on a computer keyboard or typewriter. • Posture: The position in which someone holds their body when standing or sitting. • Spacebar: The bar at the bottom of the keyboard. • Typing: The action or skill of writing something by means 	<ul style="list-style-type: none"> • Campaign: An organised course of action to achieve a goal. • Format: The way in which something is arranged or set out. • Font: A set of type which shows words and numbers in a particular style and size. • Genre: The style or category type of a piece of art, music or writing. • 	<ul style="list-style-type: none"> • Arrange: Sorting information in order against a search request. • Avatar: An icon or figure representing a person in a video game, Internet forum, etc. • Chart: A diagram that represents data. Charts include graphs and other diagrams such as pie charts or flowcharts. • Collaborative: 	<ul style="list-style-type: none"> • Audience: People who watch a performance or use a resource. • Audio: Sound (especially when recorded). • Case-Sensitive: (of a computer program or function) differentiating between capital and lower-case letters. • Clipart: Simple pictures to use on computers. • Clone:

	<p>that something travels. For example, a robot moving forwards, backwards or diagonal. • Instruction: Detailed information about how something should be done or operated. • Left and Right: A position which relates to something. For example, make the fish move left of the screen. • Route: A path an object or thing takes to get somewhere. • Undo: If we make a mistake, we can press the undo button. • Unit: A unit such as make the turtle move 2 units (squares).</p>	<p>database which makes up a record. • Information: Knowledge or facts that come from a source. • Pictogram: A diagram that uses pictures to represent data. • Question: A sentence written or spoken to find information. • Record: An item in a database with a variety of information about a specific entry. • Search: Looking for specific information. On a database, you can use the 'Find' tool. • Sort: Put things together by features they have in common.</p>	<p>of a typewriter or in this case a computer.</p>	<p>Opinion: A view or judgment someone forms about something, not always based on fact. • Reporter: A person who reports news or conducts interviews for the press or broadcasting media. • Viewpoint: The way someone sees or thinks about something.</p>	<p>Produced by, or involving, two or more parties working together. • Data: A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making. • Database: A set of data that can be held in a computer in a format that can be searched and sorted for information. • Database Report: A way of producing a written paragraph that incorporates the data from the fields and records of the database. • Field: A heading in a database record against which information is entered. • Group: Putting similar pieces of information together in a database so it is easy to read, understand and interpret. • Record: A collection of data about one item entered into a database. • Search: A way of finding information. • Sort:</p>	<p>To make a complete copy of something. • Cloze: A test in which words are removed from a text and replaced with spaces. The learner has to fill each space with the correct word(s). • Copy\Paste: A way to copy objects such as text or images using technology. • Database: A collection of data organised in such a way that it can be searched, and information found easily. • Database Record: Information about one item in the database. • Database Field: The separate pieces of information collected for each record of the database. • Image: Pictures (includes clipart, illustrations and photos). • Image Filter: Function of a computer program that changes the appearance of uploaded images. • Selfie: A photo taken by a person of themselves. • Statistics: Statistics is the study and manipulation of data,</p>
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					<p>Organising data by a rule such as alphabetical or numerical. • Statistics: The study and manipulation of data, including ways to gather, review, analyse, and draw conclusions from data.</p>	<p>including ways to gather, review, analyse, and draw conclusions from data. • Undo\Redo: Using functions to undo the last action(s) performed and (optionally) redo it. • Preview: To see what something (or part of something) looks like before committing to it being the final version. • Quiz: An activity in which participants answer questions and receive a score dependent upon correct answers.</p>
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Spring 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Question	Who can help you stay safe online?	Who can help you stay safe online?	Who can help you stay safe online?	Who can help you stay safe online?	Who can help you stay safe online?	Who can help you stay safe online?
Key Content	Animated book stories	Unit 2.5 Effective Searching Programs – Browser	Emailing Branching databases Online Safety	Unit 4.5 Logo Unit 4.2 Online safety	Game Creator Online safety	Quizzing
Skills	<ul style="list-style-type: none"> • To introduce e-books and the 2Create a Story tool. • To add animation to a story. • To add sound to a story, including voice recording and music the children have composed. • To work on a more complex story, including adding backgrounds and copying and pasting pages. • To share e-books on a class display board. 	<ul style="list-style-type: none"> • To understand the terminology associated with searching. • To gain a better understanding of searching on the Internet. • To create a leaflet to help someone search for information on the Internet. 	<ul style="list-style-type: none"> • 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. • To know what makes a safe password. • To learn methods for keeping passwords safe. • To understand how the Internet can be used in effective communication. • To understand how a blog can be used to communicate with a wider audience. 	<ul style="list-style-type: none"> • To learn the structure of the coding language of Logo. • To input simple instructions in Logo. • Using 2Logo to create letter shapes. • To use the Repeat function in Logo to create shapes. • To use and build procedures in Logo. 	<ul style="list-style-type: none"> • To plan a game. • To design and create the game environment. • To design and create the game quest. • To finish and share the game. • To self and peer evaluate. 	<ul style="list-style-type: none"> • To create a picture-based quiz for young children. • To learn how to use the question types within 2Quiz. • To explore the grammar quizzes. • To make a quiz that requires the player to search a database. • To make a quiz to test your teachers or parents.

			<ul style="list-style-type: none"> • To consider the truth of the content of websites. • To learn about the meaning of age restrictions symbols on digital media and devices. • To sort objects using just 'yes' or 'no' questions. • To complete a branching database using 2Question. • To create a branching database of the children's choice. 			
Suggested Outcome	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template. Children make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs.	Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash. They know more than one way to report	Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'IF' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.	Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital	Children make clear connections to the audience when designing and creating digital content. The children design and create their own blogs to become a content creator on the Internet, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.

			<p>unacceptable content and contact.</p> <p>Children can list a range of ways that the Internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email. They can describe appropriate email conventions when communicating in this way</p> <p>Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.</p>		<p>content, i.e. 2Blog, Display Boards and 2Email.</p>	
Subject Specific Vocabulary	<ul style="list-style-type: none"> • Animation: An object that moves on screen. • Background: An image inserted 	<ul style="list-style-type: none"> • Browser: A tool to help us access the World Wide Web. • Device: A piece of 	<ul style="list-style-type: none"> Address Book: A place where all contact's email addresses can be found and saved. • 	<ul style="list-style-type: none"> • Debugging: The process of identifying and removing errors from computer 	<ul style="list-style-type: none"> • Evaluation: To critically examine a program. It involves collecting and 	<ul style="list-style-type: none"> • Audience: People who watch a performance or use a resource. • Audio:

<p>into a file that sits behind text, objects, or buttons. • Category: A place where similar files are found. For example, Animals Category where animal images can be found. • Clip-art gallery: A place in software such as 2Create a Story where a library of images can be found and inserted into a file. • Copy: A feature that lets users copy things like text, images, sounds. • Drop-down menu: A menu where a list of choices is displayed. • E-book: A book that can be read on the computer or on a tablet. • Edit: Edit means to change something. For example, change some text to improve it. • Eraser: In some software like 2Create a Story, erasers are used to remove unwanted drawn images. • Features: In 2Create a Story there are features such as animation and sound. • Font: The style of text used in a piece of writing on a computer or tablet. • Sound:</p>	<p>electrical equipment made for a purpose. • Digital Footprint: the information about a particular person that exists on the internet as a result of their online activity. • Domain: Part of the Internet owned by an individual, company or organisation. • Internet: A way to send information from one computer to another anywhere in the world using technology such as phones, satellites and radio links. • Network: Connected devices that can send and receive information, voice and video. • Search Engine: A program to help you find web pages on the Internet. • URL: Another word for web address • Web Address: Identifying address for a file, or webpage on the Internet. • Web Page: A single page which can include images, videos and charts. • Web Site: A collection of webpages that belong to one domain. • World Wide Web: The web pages and</p>	<p>Attachment: A file, which could be a piece of work or a picture, that is sent with the email. • BCC – Blind Carbon Copy: A way of privately sending a copy of your email to other people so they can see the information in it, without the recipient knowing. • CC – Carbon Copy: A way of sending a copy of your email to other people so they can see the information in it. • Communication: The process of giving, receiving and sharing information. Examples of types of communication methods include: Email, text message, speaking and listening, sending letters. • Compose: Another word for 'write'. • Email: (Electronic Mail) An Internet service that allows people who have an email address to send and receive instant electronic letters. • Inbox: The folder where new emails go into when they are received. • Link: A line between</p>	<p>hardware or software. • Grid: The template around which the 2Logo turtle moves. • Logo: A text-based coding language used to control an on-screen turtle to create mathematical patterns. • Logo Commands (e.g. FD, BK, RT, LT) : A list of commands inputted into 2Logo to move the turtle around the screen. • Multi Line Mode: Type several lines of commands in the text area. • Pen Down: Lowers the screen pen so the 2Logo turtle draws a line on the screen. • Pen Up: Raises the screen pen so the 2Logo turtle doesn't draw on screen. • Prediction: When you say what is going to happen when you run the instructions. • Procedure: Pieces of Logo text with a procedure name that can be run by calling them by name. Saves time if you want to print to screen lots of the same shape. • Repeat: A set of instructions that is run a specified</p>	<p>analysing information about a program's activities, characteristics, and outcomes • Feedback: In this case, share information with the creator about how the game could be improved. • Image: In this case, a picture displayed on the computer screen. • Instructions: Detailed information about how something should be done or operated. • Promotion: The publicising of a product, in this case a game, so as to increase sales or public awareness. • Quest: To find or do something. • Scene: The place where an incident in real life or fiction occurs or occurred. • Screenshot: An image of the data displayed on the screen of a computer or mobile device. • Texture: High frequency detail or colour information on a computergenerated graphic. • Theme: In this case, the subject of the game.</p>	<p>Sound (especially when recorded). • Case-Sensitive: (of a computer program or function) differentiating between capital and lower-case letters. • Clipart: Simple pictures to use on computers. • Clone: To make a complete copy of something. • Cloze: A test in which words are removed from a text and replaced with spaces. The learner has to fill each space with the correct word(s). • Copy\Paste: A way to copy objects such as text or images using technology. • Database: A collection of data organised in such a way that it can be searched, and information found easily. • Database Record: Information about one item in the database. • Database Field: The separate pieces of information collected for each record of the database. • Image: Pictures (includes clipart, illustrations and photos). • Image Filter: Function of a</p>
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	<p>Sounds can be uploaded into software from a file or created. • Overwrite: When opening a previous file, users can make changes and save, which overwrites the file. • Paint tools: Lets a user create drawings in software such as 2Create a Story. • Paste: A feature that pastes copied items. • Play Mode: A mode that plays a file such as 2Create a Story. • Redo: If a user has clicked undo by mistake, they can click on redo. • Save: Files such as 2Create a Story, can be saved in a folder so work isn't lost. • Sound effect: A sound other than speech or music made for use in a play, film or computer file. • Text: Words, letters, numbers or symbols entered into a computer, such as writing text in 2Create a Story. • Undo: When a user makes a paint mark for example, this can be undone with the undo button. • Voice recording: In software such as</p>	<p>documents you see when you are browsing online. It is just one part of the Internet.</p>	<p>two nodes which shows that the two pieces of information are connected. • Mind mapping: A graphical way to present ideas and concepts which helps structure information and identify relationships between different pieces of an idea. • Node: Each bit of information on a mind map. • Password: A secret word, phrase or combination of letters, numbers and symbols that must be used to gain admission to a site or application such as email. • Personal Information: Identifying information about yourself such as your name, address and telephone number. • Save to draft: Feature which allows you to compose an email and save it to draft folder to review later before sending. • Trusted Contact: A person who you know and trust, making an email from them safe to open.</p>	<p>number of times. • Run Speed: The speed at which the 2Logo turtle moves around the screen. • SETPC: Set pen colour to a given colour. • SETPS: Set the thickness of the pen's line.</p>		<p>computer program that changes the appearance of uploaded images. • Selfie: A photo taken by a person of themselves. • Statistics: Statistics is the study and manipulation of data, including ways to gather, review, analyse, and draw conclusions from data. • Undo\Redo: Using functions to undo the last action(s) performed and (optionally) redo it. • Preview: To see what something (or part of something) looks like before committing to it being the final version. • Quiz: An activity in which participants answer questions and receive a score dependent upon correct answers.</p>
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	2Create a story, users can record their voice and insert it into the file.					
Theme Specific Vocabulary			<ul style="list-style-type: none"> • Binary Tree: Another name for a branching database. • Branching Database: Used to classify groups of objects. It is used to help identify the objects by answering questions with either 'yes' or 'no'. • Data: A collection of information, especially facts or numbers, obtained by observation, questions or measurement to be analysed and used to help decision-making. • Database: A collection of data organised in such a way that it can be searched, and information found easily. Database usually refers to data stored on computers. • Debugging: The process of identifying and removing errors from computer hardware or software. 			



Summer 1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Question	How do the SMART rules help stay safe online?	How do the SMART rules help stay safe online?	How do the SMART rules help stay safe online?	How do the SMART rules help stay safe online?	How do the SMART rules help stay safe online?	How do the SMART rules help stay safe online?
Key Content	Coding	Unit 2.6 Creating Pictures, Programs – 2PaintAPicture	ONLINE SAFETY - SMART Simulations Graphing	Unit 4.6 Animation Unit 4.2 Online safety	3D Modelling Online safety	Coding
Skills	<ul style="list-style-type: none"> • To understand what instructions are and predict what might happen when they are followed. • To use code to make a computer program. • To understand what object and actions are. • To understand what an event is. • To use an event to control an object. • To begin to understand how code executes when a program is run. • To understand what backgrounds and objects are. • To plan and make a computer program. 	<ul style="list-style-type: none"> • To learn the functions of the 2Paint a Picture tool. • To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir). • To recreate Pointillist art and look at the work of pointillist artists such as Seurat. • To learn about the work of Piet Mondrian and recreate the style using the lines template. • To learn about the work of William Morris and recreate the style using the patterns template. • To explore surrealism and eCollage. 	<ul style="list-style-type: none"> • To consider what simulations are. • To explore a simulation. • To analyse and evaluate a simulation. • To enter data into a graph and answer questions. • To solve an investigation and present the results in graphic form. 	<ul style="list-style-type: none"> • To discuss what makes a good animated film or cartoon. • To learn how animations are created by hand. • To find out how animation can be created in a similar way using the computer. • To learn about onion skinning in animation. • To add backgrounds and sounds to animations. • To be introduced to 'stop motion' animation. • To share animation on the class display board and by blogging. 	<ul style="list-style-type: none"> • To be introduced to 2Design and Make and the skills of computer aided design. • To explore the effect of moving points when designing. • To design a 3D Model to fit certain criteria. • To refine and print a model. 	<ul style="list-style-type: none"> • To design a playable game with a timer and a score. • To plan and use selection and variables. • To understand how the launch command works. • To use functions and understand why they are useful. • To understand how functions are created and called. • To use flowcharts to create and debug code. • To create a simulation of a room in which devices can be controlled. • To understand how user input can be used in a program. • To understand how 2Code can be used to make a text-adventure game.

<p>Suggested Outcome</p>	<p>Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand.</p> <p>Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.</p> <p>When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the</p>	<p>Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.</p>	<p>Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.</p>	<p>Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.</p>	<p>Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.</p>	<p>Children are able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Children test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem.</p> <p>Children translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures, including nesting structures within each other. Coding displays an improving understanding of</p>
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	turtle in 2Go challenges will end up at the end of the program.					<p>variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions.</p> <p>Children are able to interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole.</p>
Subject Specific Vocabulary	<ul style="list-style-type: none"> • Action: the way that objects change when programmed to do so. For example, move. • Algorithm: a precise, step-by-step set of instructions used to solve a problem or achieve an objective. • Background: In 2Code the background is an image in the design that does not change. • Click: This describes the action of clicking a mouse pointer on the screen or tapping with a finger on a touch screen. 	<ul style="list-style-type: none"> • Art: A visual form of creative activity and imagination. • Clip-art: Premade graphical images. • Diagonal: A slanted straight line. • Dilute: When you add water to a liquid to make it thinner. In the case of adding water to paint, it makes the colour weaker/lighter. • eCollage: A 2Paint A Picture template style where the picture is made by creating stamps that can then be placed on the picture. • Fill: Causing an area to become full, in this case, of colour. • Horizontal: A line or shape which 	<ul style="list-style-type: none"> • Advantages: The good and beneficial things about a situation. • Analysis: A detailed examination of something. • Decision: The act or result of making a choice after careful thought. • Disadvantages: The difficult and negative things about a situation. • Evaluation: To judge the value, condition or effectiveness of something. • Modelling: The act of representing something, often on a smaller scale. • Point-of-view: The 	<ul style="list-style-type: none"> • Animation: The process of adding movement to still objects. • FPS (Frame Per Second): The number of frames played per second. • Frame: A single image in an animation. • Onion skinning: A process where the shadow image of the previous frame is present to help you line up the objects of the animation correctly. • Pause: To temporarily stop the animation. • Stop motion: A technique whereby the camera is repeatedly stopped and started, for example to give 	<ul style="list-style-type: none"> • 2D: Something that has only two dimensions; height and width. • 3D: Something that has three dimensions; height, width and depth. • 3D Printing: The action or process of making a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material in succession. • CAD – Computer Aided Design: A CAD computer program or app allows you to design a 3D object or environment in 2D and visualise it in 3D 	<ul style="list-style-type: none"> • Action: The way that objects change when programmed to do so. For example, move. • Algorithm: a precise, step-by-step set of instructions used to solve a problem or achieve an objective. • Command: A single instruction in 2Code. • Concatenation: The action of linking things together in a series. • Co-ordinates: Numbers which determine the position of a point, shape or object in a particular space.

	<ul style="list-style-type: none"> • Code: Instructions that a programmer enters into a computer that cause the computer to perform a certain way. • Code blocks: A way to write code using blocks which each have an object or an action • Coding: writing instructions that the computer can process (understand) to make programs (software). • Code view: The view in 2Code that shows the coding blocks used to make the program. • Command: A single instruction in 2Code. • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed. • Design View: The view in 2Code that shows what the program looks like to the user. • Event: An occurrence that causes a block of code to be run. The event could be the result of user action such as the 	<p>goes in the direction of side to side. • Impressionism: The impressionist movement began in the 1860s and became most popular in the 1870s and 1880s. It differed from the common art of the time because it wasn't religious art, showing scenes from religious stories or specific events, but was just intended to capture a scene at a moment. The art gave an 'impression' of the scene. • Line: A long and narrow mark. • Palette: Within computer graphics, this is the range of colours or shapes available to the user. • Parallel: Lines that run side by side that never meet. • Pointillism: Pointillism was a development of impressionism. It was invented mainly by George Seurat and Paul Signac. Pointillist paintings are created by using small dots in different colours to build up the whole picture. Colours are placed</p>	<p>viewpoint or thoughts someone has or feels about a certain matter. • Realistic: Representing things accurately and true to real life. • Simulation: A program that models a real-life situation. They let you try things out that would be too difficult or dangerous to do in real life. • Solution: A means of solving a problem. • Unrealistic: Representing things inaccurately and unlike real life.</p>	<p>animated figures the impression of movement.</p>	<p>on the screen from many angles. • Design Brief: A document for a design project, defining the core details, including the goal and strategy. • Net: What a 3D shape would look like if it was unfolded and opened out flat. • Pattern Fill: A tool where you can add a customised repeating pattern to the surface of the net. • Points: The points on a 3D net which create the corners of the 3D shape. • Template: Something that serves as a model for others to copy and edit.</p>	<ul style="list-style-type: none"> • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed to. • Decomposition: A method of breaking down a task into manageable components. This makes coding easier as the components can then be coded separately and then brought back together in the program. • Event: An occurrence that causes a block of code to be run. The event could be the result of user action such as the user pressing a key (when Key) or clicking or swiping the screen (when Clicked, when Swiped) or when objects interact (collision). In 2Code, the event commands are used to create blocks of code that are run when events happen. • Execute\ Run: Clicking the Play button to make the computer respond to the
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	<p>user pressing a key or clicking the screen. In 2Code, the event commands are used to create blocks of code that are run when events happen.</p> <ul style="list-style-type: none"> • Execute: This is the proper word for when you run the code. We say, 'the program (or code) executes.' • Instruction: detailed information about how something should be done or operated. • Object: Items in a program that can be given instructions to move or change in some way (action). • Output: Information that comes out of the computer e.g. sound that comes out of the speakers. 	<p>near each other rather than mixed. • Repeating pattern: A decorative design that is shown again and again. • Rotated: When the position of an image is moved around in the direction of a circle. • Stamps: The image box in the template which contains the design used and repeated in the artwork. • Style: A particular way in which something looks or is formed. • Surrealism: Artwork which explored the subconscious areas of the mind. The artwork often made little sense as it was usually trying to depict a dream or random thoughts. • Symmetry: Something is symmetrical when it has two matching halves; the same on both sides. • Vertical: A line or shape that goes in the direction top to bottom.</p>				<p>code. Execute is the technical word for when you run the code. We say, 'the program (or code) executes.'</p> <ul style="list-style-type: none"> • Flowchart: A diagram that uses specifically shaped, labelled boxes and arrows to represent an algorithm as a diagram. • Function: A block or sequence of code that you can access when you need it, so you don't have to rewrite the code repeatedly. Instead, you simply call the function each time you want it. • Input: Information going into the computer. This could be the user moving or clicking the mouse, or the user entering characters on the keyboard. On tablets there are other forms such as finger swipes, touch gestures and tilting the device. In 2Code the commands prompt for input and get input are used to prompt the user to enter typed input and then use this input.
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						<ul style="list-style-type: none">• Launch Command: This command will open another Purple Mash file or an external website that you specify when it is called.
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Summer 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Key Question	What is cyberbullying?	What is cyberbullying?	What is cyberbullying?	What is cyberbullying? What is a digital footprint?	What is cyberbullying? What is a digital footprint?	What is cyberbullying? What is a digital footprint?
Key Content	Spreadsheets Technology Outside School	Unit 2.7 Making Music Programs – 2Sequence Unit 2.8 Presenting Ideas, Programs – Various	ONLINE SAFETY - SMART Presenting	Unit 4.7 Effective Search Unit 4.8 Hardware Investigators Unit 4.2 Online safety	Concept Maps Online safety	Text adventures
Skills	<ul style="list-style-type: none"> • To know what a spreadsheet program looks like. • To locate 2Calculate in Purple Mash. • To enter data into spreadsheet cells. • To use 2Calculate image tools to add clipart to cells. • To use 2Calculate control tools: lock, move cell, speak and count. • To walk around the local community and find examples of where technology is used. • To record examples of technology outside school. 	<ul style="list-style-type: none"> • To make music digitally using 2Sequence. • To explore, edit and combine sounds using 2Sequence. • To edit and refine composed music. • To think about how music can be used to express feelings and create tunes which depict feelings. • To upload a sound from a bank of sounds into the Sounds section. • To record and upload environmental sounds into Purple Mash. • To use these sounds to create tunes in 2Sequence. • To explore how a story can be presented 	<ul style="list-style-type: none"> • To understand the uses of PowerPoint. • To create a page in a presentation. • To add media to a presentation. • To add animations to a presentation. • To add timings to a presentation. • To use the skills learnt to design and create an engaging presentation. 	<ul style="list-style-type: none"> • To locate information on the search results page. • To use search effectively to find out information. • To assess whether an information source is true and reliable. • To understand the different parts that make up a computer. • To recall the different parts that make up a computer. 	<ul style="list-style-type: none"> • To understand the need for visual representation when generating and discussing complex ideas. • To understand the uses of a 'concept map'. • To understand and use the correct vocabulary when creating a concept map. • To create a concept map. • To understand how a concept map can be used to retell stories and information. • To create a collaborative concept map and present this to an audience. 	<ul style="list-style-type: none"> • To find out what a text adventure is. • To use 2Connect to plan a story adventure. • To make a story-based adventure using 2Create a Story. • To introduce an alternative model for a text adventure which has a less sequential narrative. • To use written plans to code a mapbased adventure in 2Code.

		in different ways. • To make a quiz about a story or class topic. • To make a fact file on a non-fiction topic. • To make a presentation to the class.				
Suggested Outcome	<p>When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program.</p> <p>Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.</p> <p>Children understand the importance of keeping information, such as their</p>	<p>Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.</p>	<p>Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.</p>	<p>• Balanced view: Presenting opposing points of view fairly and without bias. • Easter eggs: An unexpected or undocumented feature in a piece of computer software or on a DVD, included as a joke or a bonus. • Internet: A global computer network providing a variety of information and communication facilities. • Key words: A word or a group of words an Internet user uses to perform a search in a search engine. • Reliability: The degree to which the result of something can be depended on to be accurate. • Results page: Where the answers to a search are displayed. • Search engine: A program that searches for and identifies</p>	<p>Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.</p> <p>Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to</p>	<p>Children make clear connections to the audience when designing and creating digital content. The children design and create their own blogs to become a content creator on the Internet, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.</p>



Computing Long Term Plan

	<p>usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.</p>			<p>items in a database. Used especially for finding sites on the World Wide Web.</p>	<p>collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.</p>	
Subject Specific Vocabulary	<ul style="list-style-type: none"> • Button: An object you click that performs an action. E.g., print. • Calculations: Maths calculations can be entered into a cell. For example, the total of two cells can be added together using a calculation that appears in a new cell. • Cell: An individual section of a spreadsheet grid. It contains data or calculations. • Clip-art: A library of images that a user can choose from and insert in a file. • Column: Boxes running vertically in a spreadsheet. • Count tool: In 2Calculate, this counts the number of cells with a value that matches the value of the cell to 	<ul style="list-style-type: none"> • Bars: A way of measuring the length of music. • Beat: A rhythmic unit in music. • Compose: To create a piece of music. • Note: A single tone in music. • Tune: Musical notes joined together to make a melody. • Repeat: Play the music again. • Sound Effect: A sound other than speech or music. • Soundtrack: A recording of the musical accompaniment of a film or tv programme. • Speed: The number of beats per minute played in the music. • Tempo: The speed at which the music plays. • Volume: How loud or quiet the music is. 	<ul style="list-style-type: none"> • Animation: The process of adding movement to still objects. • Audio: Another word for sound. • Border Properties: The style of the border around text or an object including the colour, thickness and dashes (version dependent options). • Duration: How long something lasts for. • Editing: To improve something so that it is ready for publication. • Fill colour: The internal colour of an object such as a textbox (version dependent options). • Font formatting: Changing the appearance of text on the screen. • Layer: Describes which objects appear in the front (foreground) of 	<ul style="list-style-type: none"> • Components: Parts inside the computer casing. • CPU: The 'brains' of the computer, where all the calculations take place. • Graphics Card: Also known as a video card and used for displaying images. • Hard Drive: Where the computer stores all your documents, pictures, games and videos. • Hardware: The physical parts of a computer or device. • Input: How information enters the computer. • Motherboard: Main printed circuit board of the computer. • Network Card: Used to connect the computer to a network such as the Internet. • Output: Where information 	<ul style="list-style-type: none"> • Concept: An idea in the form of a question. • Concept Map: A tool for organising and representing knowledge about a concept. They form a web of ideas which are all interconnected. • Connection: Represents a relationship or link between two nodes or ideas. • Collaborate: Participating in an activity with more than one person working together. • Heading: A main title for a piece of written work. • Sub-Heading: A title for a section of a piece of written work. • Node: A box on screen which represents a concept or idea. Can contain text and/or an image. 	<ul style="list-style-type: none"> • Debug\ Debugging: Fixing code that has errors so that the code will run the way it was designed to. • Function: In this context, a section of code that gets run when it is called from the main code. A function in a program is usually a piece of code that gets run lots of times. • Link: A way of connecting one page to another. • QR Code: a code consisting of black and white squares, typically used for storing URLs or other information for reading by the camera on a smartphone. • Repeat: To make something happen again. • Sprite: A computer graphic which may be moved

	<p>the left of the tool. • Data: A collection of information, used to help answer questions. • Delete: Removes contents such as the contents in a cell. • Image: A drawing or photograph that users can import into a file. • Lock cell: This feature lets a user lock a cell so its contents can't be deleted. • Move cell: The move tool in 2Calculate lets a user move the contents of a cell to a new cell. • Row: Boxes running horizontally in a spreadsheet. • Select: A user can select one or more cells and perform an action such as lock all selected cells. • Speak tool: This tool will speak the contents of a cell containing a number each time the value changes. • Spreadsheet: A computer program that represents information in a grid of rows and columns. • Value: Images can have values given to them. For example, an apple could be</p>		<p>a slide and which appear behind other objects. (Version dependent options). • Media: Information in the form of words, sounds, numbers, images, or graphics in electronic, print or broadcast form. • Presentation: A visual way of displaying information to an audience that is clear and engaging. It can contain text, images, animation and videos. • Presentation Design: The overall look of a presentation including background, fonts, footers and colours. • Preview: An opportunity to look at something before it goes live. • Review: To look at something critically and consider how it could be improved. • Slide: A single page of a presentation. • Slideshow: A collection of pages arranged in sequence that contains text and images to present to an audience. • Sound effect: A sound other than speech or music made artificially for</p>	<p>leaves the system. • Peripherals: Parts that are attached to the computer case. • RAM: Allows programs to store information to help the computer run quickly. • Software: The programs that run on the computer.</p>	<p>• Presentation Mode: A mode on 2Connect where nodes and connections are revealed gradually to be accompanied by a verbal presentation. • Story Mode: A way to use a 2Connect concept map to create a piece of text.</p>	<p>on-screen. • Text Adventure: A computer game that uses text instead of graphics. • Selection: When selection is used, a program will choose a different outcome depending on a condition. • Variables: A variable has a name and a value. The program can change this variable value.</p>
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	given a value of 1 and a pear a value of 2.		<ul style="list-style-type: none"> • use in a play, film, or presentation. • Textbox: An object that can be inserted into a piece of work in a program that allows the user to input text. • Theme: A ready-made template including colours and fonts that can be edited by the user. • Timing: A particular point or period of time when something happens. • Transition: How a slide moves from one to the next. • Video: A recording of a moving image. • WordArt: A way of changing the appearance of text often using decorative shapes. 			
Theme Specific Vocabulary	<ul style="list-style-type: none"> • Computer: An electronic device for storing and processing data. • Technology: Science and engineering knowledge put into practical use to solve problems or invent useful tools. 					