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|  | Foundation **Computing Masters** can: | YEAR ONE **Computing Masters** can: | YEAR TWO **Computing Masters** can: |
| **Computer Science** | Children in foundation stage will be using robotics in order to learn how remote controls work | **Coding (1.7)**  **(LI)** Understand what algorithms are (how to get from point a to b); how they are implemented as programs on digital devices; and programs are executed by following precise and unambiguous instructions  **(LI)** Create and debug simple programs  **(LI)** Use logical reasoning to predict the behaviour of simple programs  **Key Learning:**   * Children can create a program using code blocks * Children can use event, object and action code blocks. * Children can edit a scene by adding, deleting and moving objects. * Children can change the size of objects using the properties table.   **ILP LINK: Moon Zoom**  Children to use the Free Code Chimp on Purple Mash to create a space scene, including a background and character. Children to input algorithms to make their space scene come to life.  Progression – introduction to Coding | **Coding (2.1)**  **(LI)** Understand what algorithms are; how they are implemented as programs on digital devices; and programs are executed by following precise and unambiguous instructions.  **(LI)** Create and debug simple programs  **(LI)** Use logical reasoning to predict the behaviour of simple programs  **Key Learning**   * Children can explain that an algorithm is a set of instructions and describe their own algorithms. * Children can create a program using collision detection. * Children can explain and create a program that uses a timer-after command. * Children can create programs that include objects (including buttons) and can modify and explain them * Children can debug a program and explain what debugging is   **ILP LINK: Land Ahoy**  Create an algorithm moving a pirate to the treasure  Progression – Focus on Decomposition |
| New key Vocab for a **whole** unit | Remote control  Turn  Control  Stop  Reverse  Left  Right  Battery  Antenna | **Y1 Coding Vocabulary:**  **Action:** Types of commands which are run on an object. They could be used to move an object or change a property  **Algorithm:** A precise step by step set of instructions used to solve a problem or achieve an objective.  **Background:** The part of the program design that shows behind everything else. It sets the scene for the story or game.  **Code:** Instructions written using symbols and words that can be interpreted by a computer.  **Command:** A single instruction in a computer program.  **Debug/Debugging:** Finding a problem in the code and fixing it.  **Event:** Something that causes a block of code to be run.  **Execute:** To run a computer program.  **Input:** Information going into the computer. Can include moving or clicking the mouse, using the keyboard, swiping and tilting the device.  **Object:** An element in a computer program that can be changed using actions or properties.  **Output**: Information that comes out of the computer e.g. sound.  **Properties:** All objects have properties that can be changed in design or by writing code e.g. image, colour and scale properties.  **Run:** To cause the instruction in a program to be carried out.  **Scale:** The size of an object in 2Code.  **Scene**: The background and objects together create a scene.  **Sound:** This is a type of output command that makes a noise.  **When clicked:** An event command. It makes code run when you click on something (or press your finger on a touchscreen). | \***Decomposition –** it involves breaking down a complex problem or system into smaller parts that are more manageable and easier to understand.  E.g. when programming a computer game, you would write the code to control a character's movement and then write the code to control sound effects so it is more manageable.  **New Coding Vocabulary for Y2:**  **Button:** An object on the screen which can be clicked on.  **Collision Detection:** Detecting when two characters on the screen touch each other.  **Design Mode:** Used to create the look of a 2Code computer program when it is run.  **Key Pressed:** Pushing down a key on the device's keyboard.  **Nesting:** When you write a command inside something else e.g. a block of commands could be nested inside a timer.  **Predict:** Say what you think will happen when a piece of code is run.  **Sequence:** When a computer program runs commands in order.  **Test:** When code is run to check that it works correctly.  **Text:** Typed letters on the screen.  **Timer:** Use this command to run a block of commands after a timed delay or at regular intervals.  Progression – Building on Vocabulary |
| Software | No software will be used in this – all physical resources | **Coding:**  Purple Mash:   * 2Dos * 2Code: Free Code Chimp * Tools | **Coding:**  Purple Mash:   * 2Dos * 2Code: Free Code Chimp * Tools |

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| **Information Technology** | **Drawing skills:**  Children in foundation stage will be using technology in their classroom to improve their artistic skills through the use of 2Simple and MiniMash on purple mash  **Sounds**  Children will use 2Simple Music Toolkit on Purple Mash platform to experiment with different sounds and recordings to express themselves  **Photography**  Children will use the iPads to take pictures when trying to ‘understand the world’  **Quizzes**  Children can enhance their learning in class through the use of the quizzes on purple mash | **Pictograms (1.3)**  **(LI)** Use technology purposefully to create, organise, store, manipulate and retrieve digital content  **Key learning:**   * Children can contribute to the collection of class data * Children have used these illustrations to create a simple pictogram. * Children can discuss what the pictogram shows. * Children can collect data from rolling a die 20 times and recording the results. * Children can represent the results as a pictogram.   **ILP LINK: Paws, Claws and Whiskers:** Children to create a pictogram based on their favourite pets/how many pets they have at home | **Creating Pictures (2.6)**  **(LI)** Use technology purposefully to create, organise, store, manipulate and retrieve digital content  **Key Learning**   * Children can describe the main features of Piet Mondrian’s work and then can use 2Paint a Picture to art based upon his style. * Children to create art inspired by aboriginal artwork (including dots, lines and repeated patterns) * Children can combine more than one effect in 2Paint a Picture to enhance patterns.   **ILP LINK: Muck, Mess and Mixtures**  Create an Arcimboldo inspired piece of art using images of art |
| New key Vocab for a **whole** unit | Quiz  Photographs  Camera  Record  Picture | **Pictogram Vocabulary:**  **Pictogram:** A diagram that uses pictures to represent data.  **Data:** Facts and statistics collected together that can provide information.  **Collate**: Collect and combine (texts, information, or data). | **Creating Pictures Vocabulary:**  **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.  **Palette:** Within computer graphics, this is the range of colours or shapes available to the user.  **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 near each other rather than mixed.  **Share:** An instance of posting or reposting something on a social media website or application.  **Surrealism:** 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.  **Template:** Something that serves as a model for others to copy |
| Software | **Purple mash:**   * 2Create a Story * 2Paint a Picture * Mashcams * 2Beat * 2Explore * Quizzes   Camera app | **Pictograms:**  Purple Mash:   * 2Connect * 2Count | **Creating Pictures:**  Purple Mash:   * 2Paint a picture |

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| **Digital literacy** | **Hardware**  Children will be exploring the different hardware devices in their classroom – understanding what they do and what they are called  **Technology Around Us**  This closely links to the foundation area for learning of Understanding the World – here children will use Purple Mash to explore different people and machinery in our world that help us  **Safety and Privacy**  This closely links to the foundation area for learning of PSED – here children will learn about how to keep safe in school and online | **Online Safety and exploring purple mash (1.1)**  **(LI)** Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.  **Key Learning**   * Children can log in to Purple Mash using their own login. * Children can save work into the My Work folder in Purple Mash and understand that this is a private saving space just for their work. * Children can log out of Purple Mash when they have finished using it and know why that is important.   Progression – Knowing who can help  **Technology outside of school (1.9)** *Need to explore technology inside school: What does it look like?*  *Add more IT: taking photographs/recordings using 2Paint*  **(LI)** Recognise common uses of information technology beyond school  **Key Learning**   * Children understand what is meant by ‘technology’. * Children have considered types of technology used in school and out of school. * Children have recorded 4 examples of where technology is used away from school.   **ILP LINK: Memory Box** Get the children to think about what technology was used to take the photos they’re putting in their boxes. What would they use now? Get them to take pictures of their memory boxes/videos of putting them together | **Effective Searching (2.5)**  **(LI)** Recognise common uses of information technology beyond school  **(LI)** Use technology purposefully to create, organise, store, manipulate and retrieve digital content.  **Key Learning**   * Children can recall the meaning of key Internet and searching terms. * Children can identify the basic parts of a web search engine search page. * Children have learnt to read a web search results page.   **ILP LINK: Scented Garden**  Researching minibeasts to create their own  Progression – how to use a search engine. Finding features, e.g. search bar.  **Online Safety**  **(LI)** Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.  **Key Learning:**   * To have some knowledge and understanding about sharing more globally on the Internet. * 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. |
| New key Vocab for a **whole** unit | Interactive whiteboard  iPad  Online safety  Appliances | **Online safety Vocabulary:**  **Log in:** Using a username and password to access a system.  **Avatar:** A digital picture to represent someone.  **Log out:** Leaving a computer system.  **Save:** Store your work as you create something so it can be accessed later.  **Username:** A name that is used by a person to access an online site.  **My Work:** The place on Purple Mash where your work is stored. Only you and your teachers can access this.  **Notification:** A system that lets you know if you have something to look at. On Purple Mash this is shown by a bell.  **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.  **Topics:** The area on Purple Mash that contains readymade resources  **Tools:** The area on Purple Mash with the different learning apps.  **Technology Outside of School Vocabulary:**  **Technology:** Science and engineering knowledge put into practical use to solve problems or invent useful tools. | **Effective Searching Vocabulary:**  **Internet**: A global computer network providing a variety of information and communication facilities, consisting of interconnected networks and computers.  **Search:** Look for information in a database or the World Wide Web using a search engine.  **Search Engine:** A program that searches for and identifies items on the World Wide Web.  **Online safety Vocabulary:**  **Displayboard:** In Purple Mash, this is a tool that enables you to share work with a wide audience.  **Sharing Post:** or repost (something) on a website.  **Email Messages:** distributed by electronic means from one computer user to one or more people.  **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. |
| Software | **Purple Mash**   * Device hardware slideshow * Things I like to do * People who help us * All about me | **Online Safety:**  Purple Mash:   * Paint projects * 2Connect * 2Count * 2Explore   **Tech Outside of School:**  Purple Mash:   * 2Publish | **Effective Searching:**  Search engines -   * Google * Ask * Bing * Yahoo! * AOL   **Online safety**   * Sharing (Purple Mash Tool) * 2Email |

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| Devices | IWB  iPads  Remote control cars | **iPads**   * Online safety and exploring Purple Mash * Technology outside of school | **Chromebooks**   * Pictograms | **iPads**   * Creating pictures * Effective Searching | **Chromebooks**   * Coding |

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|  | YEAR THREE **Computing Masters** can: | YEAR FOUR **Computing Masters** can: | YEAR FIVE **Computing Masters** can: | YEAR SIX **Computing Masters** can: |
| **Computer science** | **Coding (3.1)**  **(LI)**  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **(LI)** Use ‘**sequence’** work with variables and various forms of input and output.  **(LI)** Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **Key Learning**   * Children can read and explain a flowchart in order to use one to create a computer program * Children can create a computer program that uses click events and timers (timer-after, timer-every) * Children can start to create computer programs that includes use of the repeat command. * Children can use the properties table to set the properties of objects. * Children can plan their scene and code before they create their program.   **ILP LINK: Predators** Move the animals to their habitat (game)  Progression – Focus on Sequencing (putting code in order) | **Coding 4.1** *(with a focus on repetition\*)*  **(LI)** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **(LI)** Use ‘**repetition’** in programs; work with variables and various forms of input and output.  **(LI)** Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs  **Key learning**   * Children can explore different object types in 2Code and use them and backgrounds to create a scene * Children can create a program that includes an IF statement. * Children can read code that includes repeat until and IF/ ELSE and explain how it works. * Children can create a program that includes and IF/ ELSE statement. * Children can explain what a variable is and create and use them in a computer program.   **Romans**  Make a soldier march/move using 2Code  Progression – Focus on Repetition (make ordered code – loop) | **Coding (5.1)** *(With a focus on selection\*)*  **(LI)** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **(LI)** Use ‘**selection’** in programs, work with variables and various forms of input and output.  **(LI)** Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and program.  **Key Learning**   * Children can use simplified code to make their programming more efficient. * Children can use variables in their code. * Children can select the right images to reflect the simulation they are making and then use this to program the simulation in 2Code * Children can create and select functions in their code to make their programming more efficient. * Children can create and use strings in programming.   **ILP LINK: Pharaohs** Children to use free code gibbon on Purple mash and create an Egyptian scene with Egyptian ‘objects’ that do different things when clicked.Progression – Focus on Selection (Code requires decision, e.g. IF, WHEN, ELSE). | **Coding (6.1)**  **(LI)** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.  **(LI)** Use **sequence, selection and repetition** in programs; work with variables and various forms of input and output.  **(LI)** Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.  **Key Learning**   * Children can plan a program which includes a timer and a score * Children can create a program that makes use of multiple functions. * Children can explain how their code executes when their program is run * Children can follow flowcharts to create and debug code. * Children can code programs that take text input from the user and use this in the program   **ILP LINK: Revolution**  Use coding to create an animation of a Victorian invention.  Progression – Application of coded language.  **Networks (6.6)**  **(LI)**  Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.  Progression – Use knowledge from Y2 and Y4 to research Tim Berners-Lee.  Using internet for communication – how to communicate (WAN, LAN etc.)  **Key Learning**   * Children know the difference between the World Wide Web and the internet. * Children know about their school network. * Children have considered some of the major changes in technology which have taken place during their lifetime and the lifetime of their teacher/another adult.   **ILP LINK: Frozen Kingdom**  Research about the Endurance/Mr Frostbite (application)  Shop online for arctic equipment  Formal email of application for modern day Endurance mission (to Mr Frostbite) |
| New key Vocab for a **whole** unit | **\*Sequence -** Sequencing is the specific order in which instructions are performed in an algorithm.  **New Coding Vocabulary for Y3:**  **Alert:** This is a type of output. It shows a pop-up of text on the screen.  **Blocks of Command:** A series of a few code instructions.  **Develop:** The process of designing programs and writing code  **Flowchart:** A diagram which represents an algorithm.  **Plan:** Set out what you would like the program to do before it is written.  **Procedure:** A set of coded instructions that perform a certain task.  **Repeat:** This command can be used to make a block of commands run a set number of times or forever  **Values:** Usually a number, a single character or a string of characters. | **\*Repetition -** the process of looping or repeating sections of a computer program.  **New Coding Vocabulary for Y4:**  **Code Block:** An individual code command represented visually by a block on the screen.  **Co-ordinates:** Numbers which determine the position of a point, shape or object in a particular space.  **If:** A conditional command. This tests a statement. If the condition is true, then the commands inside the block will be run.  **If/Else:** A conditional 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  **Number Variable:** A variable that is numerical.  **Object Types:** The visual components within 2Code that have different properties and different actions to respond to events.  **Prompt:** A question or request asked in coding to obtain information from the user in order to select which code to run.  **Prompt for Input:** A code command that visually presents the user with text.  **Repeat Until:** This command can be used to make a block of commands run until something certain happens.  **Selection:** This is a conditional/ decision command. When selection is used, a program will choose a different outcome depending on a condition.  **Variable:** A named area in computer memory. A variable has a name and a value. The program can change this variable value.  **Variable Value:** In 2Code, this can be a string (test) a number or a function. It can be changed by the code and is stored in machine memory for the duration of the program. | **\*Selection -** Selection is the process of making a decision. The result of the decision determines which path the program will take next.  *For example, a program could tell a user whether they are old enough to learn how to drive a car. If the user's age meets the required driving age, the program would execute one set of statements. Otherwise, it would follow a different path.*  **New Coding Vocabulary for Y5:**  **Abstraction:** A way of de-cluttering and removing unnecessary details to get a program functioning.  **Called:** A line of code that triggers a function to be executed.  **Co-ordinates:** Numbers which determine the position of a point, shape or object in a particular space.  **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.  **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.  **Physical System:** A system or process which happen in the real world using robotics, sensors or motors e.g. traffic lights.  **Score:** A record of points won or lost in a game.  **Simplify/Simplified:** To make something easier.  **Simulation:** A model that represents a real or imaginary situation.  **Tab:** In 2Code, this is a way to organise a program into separate pages (tabs) of code.  **Timer:** Use this command to run a block of commands after a timed delay or at regular intervals.  **Variable:** A named area in computer memory. A variable has a name and a value. The program can change this variable value. | **New Coding Vocabulary for Y6:**  **Developer**: A person who writes, debugs and executes code to create a program.  **Get Input:** This puts the text that a user types into the computer’s temporary memory to be used to control the program flow.  **If/Else:** A conditional 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  **Launch Command:** A command that launches another program within the existing program.  **String:** A sequence of characters, which could form words, phrases or even whole sentences.  **User Input:** When a program requires an input from a user such as a click or text from a keyboard.  **Networks Vocabulary:**  **Internet**: A global computer network providing a variety of information and communication facilities consisting of interconnected networks using standardized communication protocols.  **World Wide Web:** An information system on the Internet which allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.  **Network:** Several interconnected computers, machines, or operations.  **Local area network (LAN**): A computer network that links devices within a building or group of adjacent buildings, especially one with a radius of less than 1 km.  **Wide area network (WAN**): A computer network in which the computers connected may be far apart, generally having a radius of more than 1 km  **Router:** A device which forwards data packets to the appropriate parts of a computer network.  **Network cables:** Used to connect and transfer data and information between computers and routers.  **Wireless:** The ability to transmit data from one device to another without using wires. |
| Software | **Coding**  Purple Mash:   * Tools * 2Dos * 2Chart * Free Code chimp   Progression – Software used. Difference in number of coding blocks they can use. | **Coding**  Purple Mash:   * Tools * 2Dos * 2Chart * Free Code gibbon | **Coding**  Purple Mash:   * Tools * 2Dos * 2Chart * Free Code gorilla | **Coding**  Purple Mash:   * Tools * 2Dos * 2Chart * Free Code gorilla   **Networks**  Purple Mash:   * Tim Berners-Lee Profile * Communication Questionnaire |

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| **Information technology** | **Touch Typing (3.4) - 2Type**  **(LI)** Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Key learning**   * Children understand what is meant by the home, bottom, and top rows. * Children have developed the ability to touch type the home, bottom, and top rows. * Children can use two hands to type the letters on the keyboard.   **ILP LINK:**  **Scrumdiddyumptious**  Create a poster to explain a healthy/balanced diet  Progression – base skills in order to appropriately select software to complete task more efficiently, e.g. increase typing speeds.  **Presenting (3.9) -** *MS Google Slides*  **(LI)** Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  **Key Learning**   * Children know what Google Slides is and how to open it * Children can create a presentation on Google Slides that includes: text, pictures, shapes, lines, video extension and slide animations and transitions * Children can present their Google Slides presentation to their class   **ILP LINK: Tremors**  Progression – recognising/distinguishing between safe and unsafe behaviours. | **Animation (4.6) – 2Animate**  **(LI)** Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information  **ILP LINK: Blue Abyss**  Create an animation about what lives in the ocean  **Key Learning**   * Children understand animation frames. * Children have made a simple animation using 2Animate. * Children can use backgrounds and sounds to make more complex and imaginative animations.   **Effective Searching (4.7)**  **(LI)** Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.  **(LI)** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content  **Key Learning**   * Children can structure search queries to locate specific information. * Children have used search to answer a series of questions * Children can analyse the contents of a web page for clues about the credibility of the information   **ILP LINK: Burps, Bottoms and Bile**  Research digestive system/teeth fact file  Progression – Build on Y2 learning – using the internet to search and find out the answers to questions. | **Databases (5.4) – 2Investigate**  **(LI)** Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Key Learning**   * Children understand the different ways to search a database. * Children can search a database to answer questions correctly. * Children can successfully enter information into a class database. * Children can create their own database on a chosen topic.   **ILP LINK: Beast Creator**  Children to create a class database based on the information they find on different minibeasts – to then use database to help write their ‘Just-so’ story  **Word Processing - (Google Docs) (5.8)**  **(LI)** Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Key Learning**   * Children know what a word processing tool is for. * Children will be able to create a word processing document, altering the look of the text and navigating around the document including: adding images, text boxes, changing the font (size and format), hyperlinks and formatting tables.   **ILP LINK: Traders and Raiders** Children to type their final drafts of their time travel story using google docs | **Spreadsheets (Google Sheets) (6.9)**  **(LI)** Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  **Key learning**   * Children can create a spreadsheet to answer a mathematical question relating to probability * Children can use the formula wizard to create formulae. * Children can use a spreadsheet to solve a problem. * Children can make practical use of a spreadsheet to help plan actions.   **ILP LINK: Bloodheart**  Use a spreadsheet to collect heart rate data and to then create graphs to present findings |
| New key vocab for a **whole** unit | **Touch Typing Vocabulary**  **Posture:** The correct way to sit at the computer.  **Top row keys:** The keys on the top row of the keyboard.  **Home row keys:** The keys on the middle row of the keyboard.  **Bottom row keys:** The keys on the bottom row of the keyboard.  **Space bar:** The bar at the bottom of the keyboard.  **Presenting with Google Slides Vocabulary**  **Animation:** Visual effects used on objects such as text boxes or pictures. They allow these objects to be bought on and off the slide in a certain way.  **Design Themes:** A variety of ready-made templates with custom formatting (font, colour scheme etc.) which gives a certain look and feel.  **Font:** A set of type which shows words and numbers in a particular style and size.  **Media:** Images, videos, or sounds which can be added to a presentation.  **Presentation:** A visual way of displaying information to an audience that is clear and engaging. It can contain text, images, and videos.  **Presentation Program:** A computer program, such as Google - 3.9 (Google) Slides, which is used to create a presentation.  **Slide:** A single page within a presentation.  **Slideshow:** A collection of pages arranged in sequence that contains text and images to present to an audience. Often referred to as a Slides presentation.  **Text box:** A box in which text can be inputted and formatted.  **Text formatting:** When you change the format of text on a page, including the font, the size and whether it is bold, underlined or in italics.  **Transition:** The interesting effect used when one slide moves onto the next.  **WordArt:** A way to treat text as a graphic so that you can add special effects to text. | **Animation Vocabulary:**  **Animation:** A process by which still pictures appear to move.  **Flipbook:** A book with pictures drawn in a way that makes them appear to move when the pages are flicked.  **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.  **Background:** A non-moving image that appears behind the animated images.  **Play:** Press this button to make the animation start.  **Sound:** Music or oral effects that can be added to the animation.  **Stop motion:** A technique whereby the camera is repeatedly stopped and started, for example to give animated figures the impression of movement.  **Video clip:** A short piece of film or animation.  **New Effective Searching Vocabulary for Y4:**  **Easter egg:** An unexpected or undocumented feature in a piece of computer software or on a DVD, included as a joke or a bonus.  **Internet browser:** A software application used to locate and display Web pages.  **Spoof website:** Website spoofing is the act of creating a website, as a hoax, with the intention of misleading readers that the website has been created by a different person or organisation.  **Website:** A set of related web pages located under a single domain name. | **Databases Vocabulary:**  **Avatar:** An icon or figure representing a person in a video game, Internet forum, etc.  **Binary:** tree (branching database) A way to sort information by dividing the information into groups based upon questions with yes or no answers.  **Charts:** Representing information in a pictorial form.  **Collaborative:** Produced by, or involving, two or more parties working together.  **Data:** Facts and statistics collected together for information.  **Database:** A set of data that can be held in a computer in a format that can be searched and sorted for information.  **Find;** Search for information in a database.  **Record:** A collection of data about one item entered into a database.  **Sort, Group and Arrange:** Different ways to sort information in a database to it is easy to read, understand and interpret.  **Statistics and reports:** To produce information about data in a database.  **Table:** Sorting information into rows and columns.  **Word Processing with Google Docs Vocabulary:**  **Copyright:** When an image, logo or idea has a legal right to not be copied or used without the owner’s permission.  **Cursor:** The flashing vertical line that shows your place in a document.  **Document:** A type of file which shows written information and/or images and sometimes charts and tables.  **Font:** A set of type which shows words and numbers in a particular style and size.  **In-built styles:** A bank of ready-made styles which you can use to make sure your style (font, headers, spacing, size etc) is consistent throughout the document.  **Merge cells:** A tool you can use when making a table to join cells which are next to each other in columns or rows.  **Paragraph** **formatting:** When you change the format of the text in a paragraph, including how the text is aligned and spaced.  **Readability**: How easy and pleasant it is to read and understand a document.  **Template:** A ready-made outline of a document you might want to adapt, such as a letter or certificate.  **Text formatting:** When you change the format of text on a page, including the font and the size and whether it is bold, underlined or in italics.  **Text wrapping:** A feature which helps you place and position an image neatly on a page or within a paragraph of text.  **Textbox:** A way to include text in a position that you want out of the usual flow of the document.  **Word Processing tool:** A programme which allows you to write, edit and print different documents. | **Spreadsheets with Google Sheets Vocabulary:**  **Alignment:** How the contents of a cell is lined up and arranged.  **Calculate:** A spreadsheet’s ability to complete calculations in a cell by using the = sign.  **Cell:** Each box on a spreadsheet is a cell. It can contain a variety of data such as letters, numbers, symbols and calculations.  **Cell reference:** The letter and number combination which shows a cells location on the page.  **Chart:** A tool which is used to display information in a form of a graph.  **Column:** The letter labelled columns going vertically down the sheet.  **Formula(e**): A group of letters, numbers, or other symbols which represent a mathematical rule. It allows a spreadsheet to carry out calculations.  **Function:** Ready-made mathematical formulae which help you quickly carry out calculations.  **Range:** A collection of selected cells: all the numbers you want to appear in a calculation. For example, A1:A12 includes all the cells from A1 to A12.  **Row:** The numbered rows going horizontally across the sheet.  **Spreadsheet:** The main part of the page of a software tool used to organise information.  **Style:** How the contents of a cell is presented.  **Sum:** A function which adds together the totals in a range of cells  **Text** **Wrapping:** This displays the cells contents on multiple lines rather than one long line, allowing all the contents to be shown.  **Value:** What the data in a cell represents. This could be certain text e.g. blue/green, a date, or a number.  **Workbook:** A file can contain more than one ‘sheet’. The complete file is called a spreadsheet workbook. |
| Software | **Touch Typing**  Purple Mash:   * 2Type   **Presenting**  Google Slides | **Animation**  Purple Mash:   * 2Animate   **Effective Searching**  Purple Mash:   * 2Publish Plus   Search engines:   * Google * Ask * Bing * Yahoo! * AOL | **Databases**  Purple Mash:   * 2Investigate * Avatar Builder   **Word Processing**  Purple Mash:   * 2Connect   Google Docs | **Spreadsheets**  Google Sheets |

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| **Digital literacy** | **Online Safety**  (LI) Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  **Key Learning**   * 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. * To consider the truth of the content of websites. * To learn about the meaning of age restrictions symbols on digital media and devices. | **Online Safety**  (LI) Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact  **Key Learning**   * To understand how children can protect themselves from online identity theft. * To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. * 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. | **Online Safety**  **(LI)** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  **Key learning:**   * To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online * To know how to maintain secure passwords. * To review sources of support when using technology and children’s responsibility to one another in their online behaviour. | **Online Safety**  **(LI)** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.  **Key Learning**   * To identify secure sites by looking for privacy seals of approval. * To identify the benefits and risks of giving personal information. * To have a clear idea of appropriate online behaviour. * To begin to understand how information online can persist. * To understand the importance of balancing game and screen time with other parts of their lives |
| New key vocab for a **whole** unit | **Online Safety**  **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.  **Concept map:** A diagram that shows how different objects or ideas are related and connected.  **Website:** A set of related web pages located under a single name.  **Webpage**: A page online that makes up one screen of a website.  **Spoof website:** A website that uses dishonest designs to trick users into thinking that it represents the truth.  **PEGI rating:** A rating that shows what age a game is suitable for. | **Online Safety**  **Computer virus:** A piece of code which can copy itself and typically has a damaging effect on the device, such as corrupting the system or destroying data.  **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.  **Identify Theft:** When a person pretends to be someone else.  **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:** When you use someone else's words or ideas and pass them off as your own.  **Spam:** Messages sent over the Internet, typically to many users, for the purposes of advertising, phishing or spreading malware. | **Online Safety**  **Smart rules**: A set of rules based around the word SMART designed to help you stay safe when online.  **Reputable:** Having a good reputation.  **Encryption:** The process of converting information or data into a code, especially to prevent unauthorized access.  **Shared image**: A picture that is shared online for other people to see.  **Citations:** A quotation from or reference to a book, paper, or author, especially in an academic work.  **Reference:** A mention of a source of information in a book or article including online.  **Bibliography:** A list of all the books and articles used in a piece of work. | **Online Safety**  **Digital footprint**: The information about a person that exists on the Internet as a result of their online activity  **Screen time**: Time spent using a device such as a computer, television, or games console. |
| Software | **Online Safety**   * 2PublishPlus * 2Connect * 2Blog * 2Write | **Online Safety**   * 2Connect * 2Investigate * SPAM | **Online Safety**   * Display boards (purple mash tool) * 2Print a Picture * 2Connect * 2Publish Plus | **Online Safety**   * 2Investigate * 2DIY * 2DIY3D * Free Code Gorilla |

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| Devices | **iPads**   * Presenting | **Chromebooks**   * Coding * Touch Typing | **iPads**   * Coding * Animation | **Chromebooks**   * Effective searching | **iPads**   * Coding * Databases | **Chromebooks**   * Word Processing * Online Safety | **iPads**   * Coding * Networks | **Chromebooks**   * Spreadsheets – Google sheets * Online Safety |