

<u>Nursery</u> - Know that kitchen equipment, cameras, interactive whiteboards and iPad are types of technology - Understand how simple equipment works (e.g. the on/off button can be used to turn and item on and off)	<u>Reception</u> - Know how to ‘unlock’ an iPad and find an application - Engage in discussion around the use of technology - Give instructions for a simple task - Know which jobs might need to use technology	<u>Year 1</u> Computer science - Know that a command will produce an outcome - Know that commands need to be sequenced in order to give a desired outcome - Know that programs are tested to check for errors - A program is created through algorithms to achieve an outcome - An algorithm is a list of rules to complete a task - Know the main parts of a computer (Mouse, keyboard, screen, touchpad...) and their functions Information technology - Know different paint tools (shape, line, brush, paint...) and their functions - A word processor is used to create text on a computer - Begin to know the function of different keys (backspace, spacebar, capslock) - That ‘undo’ will remove a change - A computer can be used to create, sort and count data Digital literacy - Know that there are rules to keep us safe and healthy when using technology in and beyond the home - Know a trusted adult can help us to keep safe online - Know that the way we act online has impact on others - That information found online can be copied - Know a password protects information, accounts and devices
<u>Year 2</u> Computer science - The same instructions can be used to create different algorithms - An algorithm is created through sequenced blocks - An algorithm can be debugged if it is not achieving the outcome - Computers are used for different purposes - A computer is part of IT. - Information technology is devices we used to communicate and share information through Information technology - Know that photographs can be taken on different devices (phones, cameras...) - The difference between landscape and portrait - Photographs can be altered using a computer - Computers can be used to create music - Computers can be used to create and present data in different ways. Digital literacy - Know basic rules that keep us safe online - Know people may act differently online to real life - Understand the term ‘permission’ and that it can be given, removed or denied - Know and give examples of reasons why some information should not be shared - A search engine is used to find information on the internet - That devices connect to the internet	 Computing Knowledge Path	<u>Year 3</u> Computer science - Scratch is software that can be used to create codes. - Coding is putting information and commands into a program, making it possible for you to create software, apps and websites. - Know that objects will respond exactly to the code - Know the functions and names of different elements within Scratch - The difference between an input and an output - Information is passed through multiple connections in IT. - The role of a switch, server and wireless access point in a network - A network is computers that are linked together within a building/area. Information technology - Define the term 'page orientation' as whether the page is landscape or portrait - Know different tools and their functions to create a flipbook - That text can be changed when word processing to communicate a message - Know a branching database can help present information and data Digital literacy - Know what is meant by ‘identity’ and how this can be different online/offline - The difference between belief, opinion and fact - That trust is important when online - Autocomplete can help us to search - An age restriction is in place to keep us safe
<u>Year 4</u> Computer science - That changing values will impact a command - That text can create algorithms - The effects of using a count-controlled loop in a code - The WWW contains websites and webpages - How to access the WWW - Know that websites and content are created by people Information technology - A computer can record audio - Audio soundwaves can be edited on a computer - A podcast is a recorded audio for entertainment/information - Images can be edited using a computer/device (cropped, rotated, coloured...) - Sensors can be used to collect data Digital literacy - There are rules to protect content online (ownership...) - Networks need protecting in order to keep information secure - That not everything on the internet is true, accurate or legal - How to find information online - Know how information can be stored, copied or shared - The term fake news means that information is not accurate despite being widely said - That cookies are used to store information about you online - In the UK only children aged 13 or over are able provide their own consent.	<u>Year 5</u> Computer science - Know what an infinite loop does - A microcontroller can be programmed in different ways - ‘If’, ‘then’ and ‘else’ statements can direct the flow of a program - Selection can be used to produce and intended outcome - Know that a computer system features inputs, processors and outputs - Different search engines can produce different results that can be refined Information technology - That video is a visual media format - A video can be recorded using different angles - Videos can be improved by reshooting and editing - Vector drawings are made using lines and shapes - Alignment grids and resize handles can be used to improve consistency - Layering can be used to create an image - Flat-file databases can be used to store, manipulate and create data - Filters can be used to select data Digital literacy - How to block somebody on an app/online - That a stereotype is a judgement about a person/group of people - A hoax is a lie that is told about something/event - In-app purchases are used within games/apps	<u>Year 6</u> Computer science - A variable can hold letters or numbers and can be changed - Events can set variables and conditions can change them - Programs can be tested on an emulator - A range of approaches to find and fix bugs - Internet devices have address that follow certain formats - Files can be shared, stored and accessed online - You can work privately or publicly on a computer Information technology - Websites are written in HTML - Know the common features of webpages - Understand the term ‘fair use’ - Know that some content and images are copyrighted - A hyperlink can direct somebody to a different website - Spreadsheets can be used to collect, sort and manipulate data - Formulas are used to design spreadsheets Digital literacy - That we develop a reputation when online - Search engine results are ranked - Define the terms: influence, manipulation and persuasion and how someone may encounter these online - How to report and flag inappropriate content online - Applications/devices require updates in order to be most effective and safe - Online content can target people to gain money/information and how this can be stopped - How to make references/acknowledge sources used