	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	**Mouse and Trackpad Skills** This includes clicking, navigating using the movement of the mouse and dragging and dropping. The activities aim to support children in developing the hand-eye coordination skills and fine-motor required to operate a mouse effectively. A typical laptop trackpad is also introduced. **Keyboard Skills** This includes simple typing, capital letters and function keys such as 'enter'. Activities are included that match lower-case and capital letters as most keyboards that children encounter will contain capital letters. It also includes recognising different fonts. Children can also combine mouse skills and typing skills using the mouse or arrow keys to control the cursor when writing.		**Drawing skills** This includes choosing pens and style and composing drawn images on screen. It also includes the undo function. The use of a tablet is suggested as well as a mouse to enable children to mark make using touch. **Robots** Most early years classroom have access to floor robots; ideas are included for structured play with robots, starting with toy vehicles initially. There are also ideas that start to develop children's logical processing skills in terms of following and creating instructions and making predictions.		**Sounds** These ideas make use of recording tools within Purple Mash Children will also create music using the tools. **Photography** Ideas for using photos in the classroom. How to upload images; a variety of devices and connections are suggested but will need to be adapted to the resources available in the school. **Technology Around Us** A selection of role-play ideas for including technology in play. **Hardware** Introduces knowledge about the parts of a computer and how to look after equipment. Basic computer hygiene, including handwashing, being gentle and keeping food and drinks away from devices. **Safety and Privacy** Cross-over with PSHE curriculum: many of these aspects will be covered in PSHE sessions and can be extended to lay the foundations for online safety awareness.	
	Online Safety					
Year 1	**Online Safety** To log in safely and understand why that is important. To save work to the My Work area and understand that this is private space. **Grouping & Sorting** To sort items on the computer using the 'Grouping' activities	**Pictograms** To understand that data can be represented in picture format and contribute to a class pictogram. **Lego builders** Children to begin to think logically about scenarios. Children will be introduced to the term 'algorithm'. The concept at the core of coding.	**Maze explorers** To understand the functionality of the basic direction keys in To understand how to create and debug a set of instructions **Animated Storybooks** Children know the difference between a traditional book and an e-book. Children can use the different drawing tools	**Coding** Children can give and follow instructions. Children can draw symbols to represent instructions. Children can arrange code blocks to create a set of instructions.	**Spreadsheets** Children can navigate around a spreadsheet. Children can explain what rows and columns are. Children can save and open sheets. Children can enter data into cells.	**Technology outside of school** Children understand what is meant by 'technology'. Children have considered types of technology used in school and out of school.

				to create a picture on the page. Children can add text to a page		
			Online Safety			
Year 2	**Coding** To understand what an algorithm is. To create a computer program using an algorithm. **Online Safety** To know how to refine searches using the Search tool. To know how to share work electronically using the display boards. To use digital technology to share work to communicate and connect with others locally.	**Spreadsheets** Children can explain what rows and columns are in a spreadsheet. Children can open, save and edit a spreadsheet. Children can add images from the image toolbox and allocate them a value. Children can add the count tool to count items	**Questioning** Children understand that questions are limited to 'yes' and 'no' in a binary tree. Children have matched pictures to names using a binary tree **Effective searching** Children can identify the basic parts of a web search engine search page. Children have learnt to read a web search results page. Children can search the Internet for answers to a quiz	**Creating pictures** To look at the work of pointillist artists such as Seurat. To recreate pointillist art using a computer. **Making music** Children have uploaded and used their own sound chosen from a bank of sounds. Children have created, uploaded and used their own recorded sound. Children have created their own tune using some of the chosen sounds.	**Presenting ideas** Children can use a variety of software to manipulate and present digital content and information. Children can collect, organise and present data and information in digital content. Children can create digital content to achieve a given goal by combining software packages.	
			Online Safety			
Year 3	**Coding** Children can read and explain a flowchart Children can use a flowchart to create a computer program. Children can create a computer program that uses click events and timers. **Online safety** Children understand what makes a good password for use on the Internet. Children are beginning to realise the outcomes of not keeping passwords safe.	**Spreadsheets** Children can create a table of data on a spreadsheet. Children can use a spreadsheet program to automatically create charts and graphs from data. **Touch typing** Children understand the names of the fingers. Children understand what is meant by the home, bottom, and top rows. Children have developed the ability to	**Email** Children can open an email and respond to it. Children have sent emails to other children in the class. Children can use the search option in the address book to find a classmate when sending an email. **Branching databases** Children understand how YES/NO questions are structured and answered. Children have used YES/NO questioning to	**Simulations** Children can explore a simulation. Children can use a simulation to try out different options and to test predictions. Children can begin to evaluate simulations by comparing them with real situations and considering their usefulness. Children can analyse choices made using a branching database. **Graphing** Children can set up a graph with a given number of fields.	**Presenting** Children can create a presentation including formatted text. Children can include different media. Children can add transitions and animations. Children can add timings to the presentation. Children can present effectively.	

		touch type the home, bottom, and top rows.	play a simple game with a friend. Children can explain why they choose a particular question to split their database. Children can begin to use 'or more' and 'or less' in their questioning	Children can enter data for a graph. Children can produce share graphs made on the computer. Children can select most appropriate style of graph for their data and explain their reasoning.	
	Online Safety				
Year 4	**Coding** Children can create a program that includes an IF statement. Children can interpret a flowchart that depicts an IF statement. **Online safety** Children know that security symbols such as a padlock protect their identity online. Children know the meaning of the term 'phishing' and are aware of the existence of scam websites. Children can explain what a digital footprint is and how it relates to identity theft.	**Spreadsheets** Children can use the number formatting tools to appropriately format numbers. Children can add a formula to a cell to automatically make a calculation in that cell. **Writing for different audiences** Children can role-play the job of a journalist in a newsroom. Children can interpret a variety of incoming communications and use these to build up the details of a story. Children can use the incoming information to write their own newspaper report.	**Logo** Children know what the common instructions are and how to type them. Children can follow simple instructions to create shapes on paper. Children can follow simple instructions to create shapes. **Animation** Children know what 'stop motion' animation is and how it is created. Children have used ideas from existing 'stop motion' films to recreate their own animation. Children have shared their animations and commented on each other's work using display boards and blogs	**Effective searching** Children can structure search queries to locate specific information. Children can analyse the contents of a web page for clues about the credibility of the information. **Hardware investigators** Children can name the different parts of a desktop computer. Children know what the function of the different parts of a computer is.	**Making music** Children can use appropriate musical language to discuss a piece of music. Children can identify sounds in a piece of music. Children can explain how a piece of music makes them feel. Children can explore and understand how music is created. Children can experiment with pitch, rhythm, and melody to create a piece of house music
	Online Safety				
Year 5	**Coding** Children can use simplified code to make their programming more efficient. Children can use variables in their code.	**Spreadsheets** Children can create a formula in a spreadsheet to convert m to cm. Children can apply this to creating a spreadsheet that converts miles to km and vice versa.	**Game creator** Children can review and analyse a computer game. Children can describe some of the elements that make a successful game.	**Concept maps** Children can make connections between thoughts and ideas. Children can see the importance of recording concept maps visually.	**Word processing** 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. Children know how to add images to a word document. Children can edit images to reduce their file size.

	Children can create a simple playable game. **Online safety** Children think critically about what they share online, even when asked by a usually reliable person to share something. Children have clear ideas about good passwords. Children can see how they can use images and digital technology to create effects not possible without technology. Children have experienced how image manipulation could be used to upset them or others even using simple, freely available tools and little specialist knowledge.	**Databases** Children can create their own database on a chosen topic. Children can add records to their database. Children know what a database field is and can correctly add field information. Children understand how to word questions so that they can be effectively answered using a search of their database.	Children can begin the process of designing their own game. **Modelling** Children can refine one of their designs to prepare it for printing. Children can print their design as a 2D net and then created a 3D model. Children can explore the possibilities of 3D printing.	Children understand what is meant by 'concept maps', 'stage', 'nodes' and 'connections.' Children can create a basic concept map.	Children know the correct way to search for images that they are permitted to reuse. Children know how to attribute the original artist of an image.
			Online Safety		
Year 6	**Coding** Children can follow through the code of how a text adventure can be programmed. Children can design their own text-based adventure game based on one they have played. Children can adapt an existing text adventure so it reflects their own ideas.	**Spreadsheets** Children can create a spreadsheet to answer a mathematical question relating to probability. Children can take copy and paste shortcuts. Children can problem solve using the count tool. **Blogging**	**Text adventures** Children can create their own text-based adventure based upon a map. Children can use coding concepts of functions, two-way selection (if/else statements) and repetition in conjunction with one another to code their game. Children make logical attempts to debug their code when it does not	**Quizzing** Children understand the different question types. Children have ideas about what sort of questions are best suited to the different question types. Children have made and share a science quiz (or another subject).	**Spreadsheets** Children know some uses of a spreadsheet tool. Children can navigate around a spreadsheet using cell references. Children can enter data into cells. Children understand new vocabulary relating to spreadsheets: cells, columns, rows, cell names, sheets, workbook. Children can use a spreadsheet to carry out basic calculations including addition, subtraction, multiplication and division formulae. Children can use the series fill function.

Online safety Children can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities. Children can give reasons for limiting screen time. Children can talk about the positives and negative aspects of technology and balance these opposing views.	Children can post comments and blog posts to an existing class blog. Children understand the approval process that their posts go through and demonstrate an awareness of the issues surrounding inappropriate posts and cyberbullying. Children can assess the effectiveness and impact of a blog. Children understand that content included in their blog carefully considers the end user.	work correctly **Networks** Children have researched and found out about Tim Berners-Lee. 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.	Children have considered the audience's ability level and interests when setting the quiz. Children have shared their quiz with peers. Children have given and responded to feedback. **Binary** Children can explain how all data in a computer is saved in the computer memory in a binary format. Children can explain that binary uses only the integers 0 and 1. Children can relate 0 to an 'off' switch and 1 to and 'on' switch.	Children recognise how using formulae allows the data to change and the calculations to update automatically.
	Online Safety			