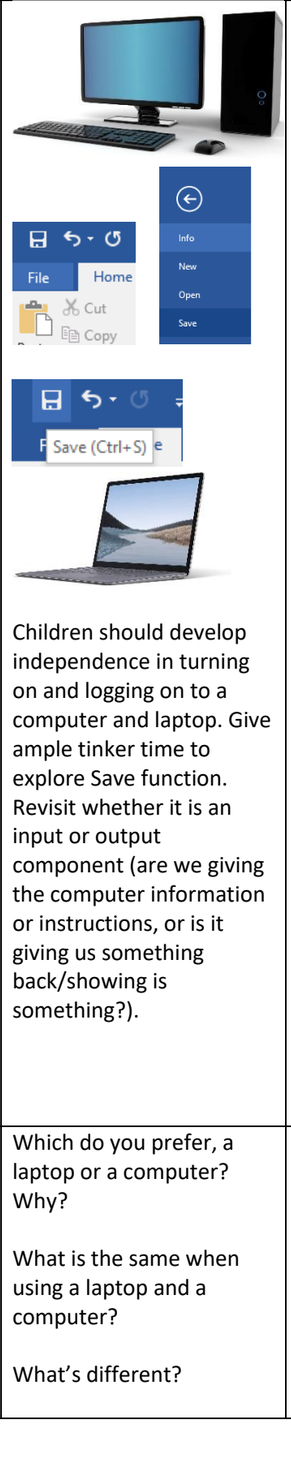
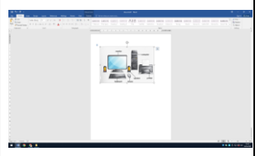
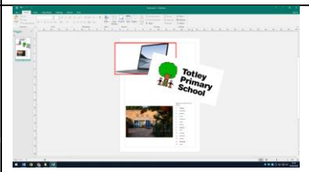
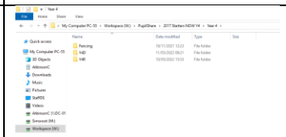
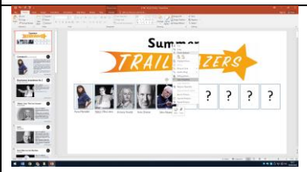
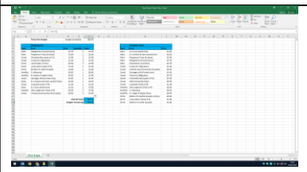
Fundamentals							
Learning Journey	FS2 – Using a computer	1 – Saving a file	2 – Word	3 – Publisher	4 – Printing and Save As	5 – PowerPoint	6 - Excel
End point: what will children **know**, be **able** to do and **understand** by the end of this cycle? Which source will they analyse to apply their learning?	**Children will be able to:** -Use a computer mouse to click and drag with control and click on objects -Safely switch on and shutdown a computer -Handle equipment and tools effectively	**Children will be able to:** -Use a computer mouse and laptop touchpad to draw simple shapes and develop an association with hand movement and action on the screen -Safely switch on and shutdown a computer -Name the main components of a computer *Monitor, PC unit, keyboard, mouse, speaker* -Save a file (which has already been saved)	**Children will be able to:** -Use a computer mouse and laptop touchpad with increasing confidence and accuracy to open programmes and documents, drag objects and resize objects. -Turn on, log in, log off or safely shutdown a PC or laptop -Open saved work, edit text and understand the difference between 'save' and 'save as' -Begin to show an awareness of where letters are on a keyboard when typing -Format text (select font type, change colour, change size, bold, underline)	**Children will be able to:** -Use and distinguish shortcuts paste, cut and copy, and how to use ctrl c, x and v -Use caps lock when required along with using bullet points/numbering for lists -Insert and format text boxes and images that have been inserted or copied and pasted -Align text left or central when appropriate -Type with a minimum of 10 words per minute https://www.livechat.com/typing-speed-test/#/	**Children will be able to:** -Send documents to the correct printer -Use special characters such as ? ! " £ @ using 'shift' -Save documents on the pupilshare area of the server, select appropriate names for file saves and rename files if necessary -Start to transfer fundamental skills and explore across Word and Publisher -Type with a minimum of 12 words per minute with 90% accuracy https://www.livechat.com/typing-speed-test/#/	**Children will be able to:** -Select which software (Word, PowerPoint and Publisher) is best for different purposes Using PowerPoint: - Include slides with hyperlinks - Create a branching story - Add transitions and animations - Insert video and audio - evaluate slide layout and quality -Type with a minimum of 15 words per minute with 90% accurately https://www.livechat.com/typing-speed-test/#/	**Children will be able to:** -Select from a range of software, decide and evaluate which is best for different purposes (including Word, PowerPoint, Publisher, Excel) -Using Excel: -add, edit and enter data and formulas into a spreadsheet -order and present data -design and use a spreadsheet for a specific purpose or problem https://www.livechat.com/typing-speed-test/#/
EYFS Framework National Curriculum	*Turning the computer on and off* *Using the mouse to operate the computer (Click / drag / draw pictures)* *Using the keyboard arrows to operate the computer and to type my name*	Are responsible, competent, confident and creative users of information and communication technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Are responsible, competent, confident and creative users of information and communication technology Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Are responsible, competent, confident and creative users of information and communication technology Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals including presenting data and information	Are responsible, competent, confident and creative users of information and communication technology Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals including presenting data and information	Are responsible, competent, confident and creative users of information and communication technology Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals including presenting data and information	Are responsible, competent, confident and creative users of information and communication technology Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals including presenting data and information
Core questions	**How do you use a computer mouse accurately to click and drag?** **How do you turn a computer on and off safely?** **How should we**	**How do you draw a shape accurately using a computer mouse?** **How do you turn a computer on and off safely?** **What are the parts of a computer?**	**How do you open a programme or document?** **How do you resize an object in Word?** **Can I independently log on and be ready to learn?**	**What is the difference between cut and copy?** **How do you format images to create an appealing layout?** **How can you format text for an appealing layout?** **How do you punctuate a list?**	**How do you print a document?** **What other characters can we type?** **How do you navigate the school network?** **Which is the best for the job, Publisher or Word?**	**Which is the best for the job, Publisher, Word or PowerPoint?** **How do you set up hyperlinks in PowerPoint?** **How do you make a branching story?** **How do you insert animations, video and audio?**	**What is excel and why is it used?** **How do you enter data and formulas into a spreadsheet?** **How do you order and present data based on calculations?** **How do you add, edit and calculate data?**

	handle technology safely?	**How do I save my work?**	**How do I open a document I've already started?** **What's the difference between *save* and *save as*?** **How do you format text?**			**What makes an effective slide layout?**	
Source and analyse questions Each lesson starts with Tinker Time to handle/use an example in order to explore possible answers to the questions below. Display the vocabulary already learnt: children should use this in their discussions, along with oracy framework. Formative assessment opportunity- are we ready for the next step in our learning? **What is it?** **What might it be useful for?** **What questions do we have about it?**	 Opportunities to handle a range of technology for different purposes, always treating it with respect and safety (e.g. never putting it on the floor, putting it back in a case where appropriate and use for appropriate function).	 Children should develop independence in turning on and logging on to a computer and laptop. Give ample tinker time to explore Save function. Revisit whether it is an input or output component (are we giving the computer information or instructions, or is it giving us something back/showing is something?).	  Using a premade template, allow children to compare what happens when you click Save and Save As. What is the same and what is different?	 Using a pre-made Publisher document, allow children to first use Save As to make their own copy (retrieval from Y2), then tinker resizing, cropping, rotating and adding a border to images. The textbox with a numbered list also shows children the aim for their published work. What happens when we change to bullet points?	 Use a file directory for children to annotate a printed screen shot of the information displayed. E.g how many different ways can we find to reach the same folder? From the desktop? From the start icon?	  Use an assemblies PowerPoint (children make their own copy using Save As- retrieval from Y2) in order to explore hyperlinks between slides and to helpful websites.	 Use a WAGOLL made by children from the previous year to explore the information in cells. Which information has been typed in? What happens when we change the budget?
 Compare, contrast and deepen	When we use technology, we always… What would we use each piece of technology for?	Which do you prefer, a laptop or a computer? Why? What is the same when using a laptop and a computer? What's different?	What's the same and what's different between save and save as?	What tools does Publisher allow you to do that Word doesn't?	Which is the best for the job, Publisher or Word?	Why should we use PowerPoint to create slides to share information and not Word? What makes an effective presentation?	Why would we use Excel and not Word to plan a party? Why would we use Publisher to create the invitations and not Excel?

	Which is most useful, or does it depend on the job we're doing?						
Application and outcome activity to showcase end point knowledge/skills	Can should be given the opportunity to use and apply prior fundamental learning to their computing lessons and across the curriculum. Check prior knowledge and understanding e.g. are children accurate and confident using PowerPoint in order to use it in History?						

Computational Thinking and Coding

Learning Journey	FS2 - Beebots	1 – Beebots and Espresso Coding	2 – Beebots and Espresso Coding	3 – Probots and Espresso Coding	4 - Probots, Databases and Espresso Coding	5 – WER Robots, Flowol, Espresso Coding	6 - WER Robots and Espresso Coding
End point: what will children **know**, be **able** to do and **understand** by the end of this cycle? Which source will they analyse to apply their learning?	**Children will be able to:** -Can follow instructions involving several ideas or actions *(Communication and Language)* -Answer 'how' and 'why' questions in response to stories and events *(Communication and Language)* -Uses everyday language to talk about position *(Maths: Shape, Space, Measure)* -Uses everyday language to talk about distance *(Maths: Shape, Space, Measure)*	**Children will know:** -Knowing that code is a set of instructions for a computer **Children will be able to:** **<u>Beebots</u>** -I can give instructions to a friend and physically follow their instructions -I can say what actions I will need to do to make something happen, and talk about this as the algorithm -Begin to predict what will happen in a short sequence of instructions **<u>Espresso Coding Level 1</u>** -Make things move on screen using start events and click events to make things happen -Create a scene and game where things move, and design items and backgrounds for scene -Check for mistakes and debug	**Children will understand:** **<u>Databases</u>** -I can begin to understand what a branching database is and sort objects -I can think about when and why to use a branching database **Children will be able to:** **<u>Beebots</u>** -Discuss devices that have been programmed and need code such as games, apps, domestic appliances -Solve larger problems, and talk about them as algorithms -Predict what will happen in longer sequences of instructions **<u>Espresso Coding Level 2</u>** -Use code to make things happen using keyboard keys and create a program where things move -Make my own app/program combining objects that move using clicks and keyboard inputs	**Children will understand:** -Investigate how everyday devices use inputs and outputs e.g. kettle, traffic lights **Children will be able to:** **<u>Beebots and ProBots</u>** -Explore loops and repeats to shorten lines of code and instructions -Plan, create and debug instructions to achieve specific outcomes **<u>Espresso Coding Level 2 (recap)</u>** -Use commands to make items appear and disappear **<u>Espresso Coding Level 3</u>** -Begin to use timing in programming to sequence actions **<u>Espresso Coding Level 4</u>** -Begin to use conditional (if) when creating a game -Look for mistakes and debug my work	**Children will be able to:** **<u>Probots</u>** -I can create, test and debug algorithms to carry out a specific task -I can include loops and 'if' conditional to shorten my code **<u>Databases</u>** -I can collect data and add to a database, reorganise the data and think about how best to present the data -Plan, create and search a database to answer questions **<u>Espresso Coding Level 4</u>** -I can learn and practise how to use a loop to do something repeatedly (and repeat infinitely) and create a timer -I can explore how to use variables to keep track of a score in a game	**Children will be able to:** **<u>ProBots and WER robotics</u>** -I can test and find errors and improve given code (debug), evaluate explain the process -Build code to control a device including inputs and outputs using sensors and output values -Refine procedures to improve desired outcomes **<u>Flowol4</u>** -I can draw flow diagrams (algorithms) to show how everyday things work **<u>Espresso Coding Level 5</u>** -I can set values in code to program the speed of objects, and change their direction **<u>Espresso Coding Level 5</u>** -Set friction to effect speed and movement (e.g. making a car game) **<u>Espresso Coding Level 5</u>** -Code a game that uses random number generation, and random movement of objects	**Children will be able to:** **<u>ProBots and WER robotics</u>** -Undertake creative projects to achieve specific goals -Explain the purpose and function of the code, variables etc in the project -Compare and contrast different coding languages e.g. Espresso Coding, Scratch, Flowol, WER software flowchart **<u>Espresso Coding Level 5 and 6</u>** -I can program my own game where objects move, and collect further information and set object parameters -I can use variables and formulae in code to convert one measure to another -Use variables in more complex ways to make a unit conversion
EYFS Framework National Curriculum	*Use the language of 'programming', 'algorithm' and 'de-bugging' in relation to following and giving instructions within technology and everyday life.*	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical system; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical system; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical system; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical system; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
Core questions	**Was it easier coding the BeeBot or your friend? Why?** **Here is an instruction (show 3-4 arrows), will it go to this square?**	**Can I make a set of instructions that are clear for a friend to follow?** **Can I predict what the outcome will be from a set of instructions?**	**What is data?** **Can I sort data?** **How can you use a database to sort data?** **What examples of coding are there around us?**	**How do you write in code to create a programme?** **Can I programme a friend using lines of code?** **Can I debug a programme?**	**How can we use loops, and repeats to shorten code?** **How can if conditionals refine code?**	**Can I debug and improve given code?** **Can I follow instructions to create my own working robot?** **What do the output values mean, and how**	**Can I debug and improve given code to solve a given problem?** **How many problems can you solve using your robot in the most efficient way?**

	Is there a quicker way to get to this square?	**What instructions do I need to give in order to achieve the outcome I want?** **What is coding?** **How do you create a code for something on a screen?** **How do you 'debug'?**	**How do you use the keyboard to input controls?**	**How do you use commands to make objects appear and disappear?** **How do you use timing in a programme?** **How do you use conditional instructions in a game?**	**Can I create, test and debug algorithms to navigate through a maze?** **How can you use a database to sort data?** **Can I refine my questions when creating branching databases?** **What are variables in gaming and how do we write code with them?**	**can I use this information?** **Can I refine and debug my programme to achieve a specific task? (score a goal with my robot)** **How do computers use number to represent the speed of movement and where they are?** **How do you generate random numbers in programmes?** **What is a flow diagram?** **How do everyday things work using algorithms?**	**How would your coding look in Flowol? Espresso coding?** **How can we use and create more complex variables to create more complex games?**
Compare, contrast and deepen		**Here is an instruction (show 7-8 arrows), will it go to the end?** **Is there a quicker way to get to the end?** ***Show a maze not with 90 degree corners*** **Can you complete this maze? If not, why? What would we need to change?**	**Can data only be sorted one way? *I have sorted these pieces of data into different categories. Can you work out what my categories are?*** ***Show a maze not with 90 degree corners*** **Can you complete this maze? If not, why? What would we need to change?**	**What are the similarities and differences to BeeBots and ProBots?** **What benefits are there to using ProBots to BeeBots?** **Do they make the task easier or harder to solve? Why?** **Could you use a repeat when making a rectangle?**	**How can you predict/find the correct angle input required?** **Is there a quicker way to get to the end?** **Why might the 'if' conditional be helpful as a programmer?** **Which shapes can be drawn using your robot? Try a range of polygons and non-polygons**	**Now your robot is built and powered, does it have intelligence?** **If the sensor values display light and dark values, what would happen across a rainbow? Can you predict the values that would be shown?** **Is there more than one way to solve this problem?** **How could you solve it with/without another motor?**	**Is there more than one way to solve this problem?** **How could you solve it with/without another motor?** **Is this the most efficient way?** **Could it be solved using a ProBot?** **Could it be solved using the same approach?** **What are the limitations OR advantages of using the ProBot?**
Application and outcome activity to showcase end point knowledge/skills	Children can manoeuvre BeeBots to a given point or square on a mat at least 3-4 movements (line of code) away	Children can predict lines of code for instructions using arrows and other symbols for actions, and debug any errors and even predict errors using Beebots and other people as the device (unplugged) through small mazes with 90 degree turns	**<u>Data</u>** Children apply knowledge of what data is across the curriculum e.g. maths, science to sort and understand various data. **<u>Coding</u>** Children assign keys to perform various movements on screen (completing level 2 on Espresso Coding) Children can predict lines of code for instructions using arrows and other symbols for actions, and debug any errors and even predict errors using Beebots and other people as the device	**<u>Coding</u>** Children use ProBots and other people (unplugged) to manoeuvre through mazes with 90 degree mazes AND use the repeat function. Children can explain that repeating lines is more efficient and can shorten lines of code and therefore reduce risk of error. Completing up to level 3 on Espresso Coding Children draw squares with ProBot and see if it is quicker to input every line of	**<u>Coding</u>** Children solve complex movements using ProBots and other people (unplugged) through mazes with various degree turns. End of maze ends at a wall. Use 'IF' conditional to stop car IF front bumper is hit. Complete up to level 4 on Espresso Coding **<u>Databases</u>** Children apply knowledge of what data is across the curriculum e.g. maths, science to sort and	**<u>Coding</u>** Completing Espresso Code up to level 5 Children explore the input values of the sensors to identify how the robot 'sees' various shades, and what that looks like in terms of data. How could this be useful when solving problems with robots? Children use motor inputs to solve various tasks such as scoring a goal with ping pong ball, or approaching and solving a WER designed task	**<u>Coding</u>** Completing Espresso Code up to level 6 Children solve WER tasks using their robot by using numerical input to alter motor speeds, sensor detection. They will also attempt to solve same problem using ProBot. What would need to change? Could it be solved in the same way?

			(unplugged) on more complex and larger tasks such as mazes with 90 degrees	code or use the repeat function	understand various data using branching databases with increased variety of data and complexity of options	considering the various speeds and motor directions required **<u>Flowol</u>** Create a Flowol chart to show the human thoughts behind playing 'snap' and then apply to 'Top Trumps'. How many more decisions need to be considered? Could also do 'crossing the road'	

Multimedia							
Learning Journey	FS2 – Taking pictures (create and organise digital content)	1 – Book Creator (photo album)	2 – photo editing/Creating pieces of art	3 – Windows moviemaker	4 - Windows moviemaker	5 – Windows moviemaker and Green Screen	6 – Windows moviemaker and Green Screen
	Images			**Sound**	**Images and sound**		
End point: what will children **know**, be **able** to do and **understand** by the end of this cycle? Which source will they analyse to apply their learning?	**Children will be able to:** -Selects and uses technology for particular purposes *(Understanding the World)*	**Children will be able to:** -Use technology to collect information, including photos -Use technology to create and present ideas/work	**Children will be able to:** -I can use a range of art tools to create different effects to create a piece of artwork	**Children will be able to:** -I can use technology to organise and present using sound files -Use appropriate software and other tools effectively to present a written script	**Children will be able to:** -I can use technology to organise and present my ideas using images and sounds -Begin to use your own voice recordings	**Children will be able to:** -Use appropriate software and other tools effectively to present a written script -Use digital recording devices to film and import into video editing software to create a finished short film to present	**Children will be able to:** -I can make short film and evaluate which software/resource was most appropriate -I can use sounds to create atmosphere when presenting to different audiences -Begin to use samples, loops, and your own voice recordings
EYFS Framework National Curriculum	Recognise that a range of technology is used in places such as homes and schools and select and use technology for particular purposes.	Recognise common uses of information technology beyond school Use technology purposefully to create, store and organise digital content	Recognise common uses of information technology beyond school Use technology purposefully to create and organise digital content	Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals	Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals	Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals	Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals
Core questions	**What would you use a camera for?** **When would you take a photo?** **What is the purpose of taking a photo?**	**How can we decide which photos are the 'best'?** **How can we organise them into a digital photo album?** **Can you create your own photo album?**	**What effects can I create with an image?** **What effects can I create using Paint tools?** **Can I create a piece of art digitally in the style of an existing piece?**	**What is Windows Movie Maker and what could I use it for?** **How can I find and insert sound files?** **Can I create a short film to present and use the sounds effectively and accurately?**	**How do you insert sound and image files into Windows Movie Maker?** **How do I import my own voice recordings into Windows Movie Maker?** **Can I create a short film to present and use the sounds effectively and accurately?**	**How does Green Screen work and where in everyday life may you see it?** **Can you create a short, informative film using appropriate Green Screen effects?** **Could this be done on Movie Maker to the same standard and purpose?**	**How can different atmospheres be presented through digital media?** **Which sound files would best suit the image or video clip?** **Can I create a short film to present and use the sounds effectively and accurately to create atmosphere?**
 Compare, contrast and deepen		**What are the advantages and disadvantages of having digital photos and printing them out?** **How many different ways could they be organised?**	**If you had the choice, would you create your artwork by hand or electronically? Why?** **What were the advantages of making digital artwork?**	**What makes a good quality sound file?** **How can you identify which files are sound files?** **What are the advantages and disadvantages of**	**What makes a good quality sound file?** **How can you identify which files are sound files?** **What are the advantages and disadvantages of**	**What is your personal preference for digital film making? Green Screen or Movie Maker? Why?** **Do they suit certain purposes or can they both be used for the same outcome?**	**What is the success criteria for an appropriate short digital film?** **What advice would you give to ensure a high quality production?**

		Is there a 'best' way to organise the photos to present them to someone else?	**What are the advantages of artwork by hand?**	**recording longer/larger sound files?**	**recording longer/larger sound files?**	**What were some of the challenges when creating your digital film?**	**Would you achieve the same result with Green Screen/Movie Maker?**
Application and outcome activity to showcase end point knowledge/skills		Select from a given range of images and children decide where they are placed and how big the different images should be to showcase to an audience	Create artwork digitally based on other digital pieces of art e.g. examples of digital collages	Create a short film using given images, clips and sound files	Create a short film by creating/inserting their own images, clips and sound files	Create a short informative film using the Green Screen effect e.g. presenting the Solar System AND THEN attempt same task on Movie Maker	Create a short film using given images, clips and sound files and their choice of media form

Technology in our lives

Learning Journey	FS2 – Where is the technology around us?	1 – How does the technology around us work?	2 – Searching on the internet	3 – Searching with precision	4 – Where does our saved work go?	5 – Being internet savvy	6 – Being internet savvy
End point: what will children **know**, be **able** to do and **understand** by the end of this cycle? Which source will they analyse to apply their learning?	**Children will be able to:** -Recognises that a range of technology is used in places such as homes and schools *(Understanding the World)*	**Children will be able to:** -Talk about, explore and demonstrate how everyday objects and devices can be controlled through remote control e.g. TV, DVD, cameras, projectors, screens…	**Children will be able to:** -I can search the Internet using 1-2 key words suitable for children safely online -Search the Internet to find information and results -Follow links to another web page -Use a camera to take photographs which would be safe to use online	**Children will be able to:** -I can identify how word order affects search results -Explain how searches and how Google search works -I can explain how and why I need to be responsible online when searching	**Children will be able to:** -I can explain where documents and software are saved in school (server), and access school files independently -I can explain what a network is and the devices that make up the school network -I can explain how the school network system is similar and different to 'the cloud'	**Children will be able to:** -Use search engines to find appropriate information and check its reliability -I can explain and understand what cookies are -Understand basic copyright laws when finding and using online information -Name the different components to a computer and how it works including disk drives, motherboards, memory disk drives and removable devices such as flashdrives	**Children will be able to:** -I can explain the ways in which websites and apps advertise products to me -I know that websites can use my data to make money and target their advertising -Understand copyright and legal property of my own data I post -Be aware of different settings on devices and apps such as location, brightness, allowing other devices/apps to access camera, contacts, mic…
EYFS Framework National Curriculum	Recognise that a range of technology is used in places such as homes and schools and select and use technology for particular purposes.	Recognise common uses of information technology beyond school	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	Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration	Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration	Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration	Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration
Core questions	**What technology do you have at home?** **What technology are you allowed or not allowed to use at home? Why?** **What technology are you allowed or not allowed to use at school? Why?** **How does it help you?**	**Can you sort toys and objects by if they use electrical power?** **How can we control electrical devices?** ***Most learning occurring during science and history when exploring and comparing toys and objects***	**How can I use a search engine safely?** **Can I find specific information online?** **What makes a photo safe to share on and offline?**	**How does Google search the Internet?** **Is there an efficient and safe way to get the best search results?** **How can I check that the information I find is reliable?**	**What is the school network, and what devices are connected?** **What would your home network look like?** **How does the school network help us day to day?** **What is meant by 'cloud' storage, and how is it similar and different?**	**What are the components that make up a laptop and PCs?** **What is a search engine, and how can I use it effectively?** **What are cookies, and why do we have them?** **What are the basic copyright laws when finding and using online information?** **What is binary code?** **What are kilobytes, megabytes, gigabytes and terabytes?**	**How am I targeted for adverts across different media sources?** **What is my data and how do websites profit from it?** **What is copyright and how does it affect me?** **Could you support and explain privacy settings for someone with a new device?**

 Compare, contrast and deepen		***Throughout the year, adults highlight use of certain technology used in the class e.g. the remote for the speakers, the visualiser to discuss how we can use them using buttons and remotes***	***Give children different search entries*** **Which search do you think will give the best results?** **How could we improve this search so it is more efficient?** ***Show children range of photos*** **What should you consider before sharing these photos online or offline?** **Do we have to consider the same things?**	**Do we ever search the Internet?** **Do different search engines give the same results?** **What should you do when searching the Internet to keep yourself calm and safe?**	**What are the similarities and differences from the school and your home network?** **What are the potential security risks with networks? E.g. accessing servers and personal data, accessing home security such as Ring alarms** **What are the advantages and disadvantages of cloud based storage?**	**Search engines only search their index or 'version' of the Internet. Does this mean the information is selected and controlled?** **What would our computing experiences be like with or without cookies?** **Are there any limitations to the binary number system so far?** **What are the implications and future of technology if more and more data can be stored and transferred?**	**What are the advantages and disadvantages of being targeted for adverts?** **Thinking of your devices and usage right now, what potential data is connected to you?** **Your health, biometric, genetic and even political data is or will be stored. What are your thoughts?** **Are there any privacy stings that concern you?**

Taught within Personal Development sequence – Online Safety (Sheffield Online Safety Curriculum)							
Learning Journey	FS2Safe and healthy online and offline	1 – Using our golden rules on and off line.	2 – Using our golden rules on and off line.	3 – Keeping myself safe, healthy and protected online.	4 – Keeping myself safe, healthy and protected online.	5 – social media	6 – social media
End point: what will children **know**, be **able** to do and **understand** by the end of this cycle? Which source will they analyse to apply their learning?	**Children will know:** -How do I decide what to play on? -Know that we can communicate online -Why is it important to be kind? **Children will understand:** -Why do we need to get enough sleep? -Understand what we do if we don't feel safe online -Understand that some information is private **Children will be able to:**	**Children will know:** (S2) What makes a good friend online and offline (P2) – What do we do if we feel uncomfortable online? **Children will understand:** (L1) - Understand a healthy balance of online and offline activities (S3) Communicating online and offline with people **Children will be able to:** (L2) How to choose what to do and what not to do online	**Children will know:** (S1) How do we keep our information safe? (P1) Who can you trust online? **Children will understand:** (L1) Understand a healthy balance of online and offline activities (C1) – Do you need a password in Y2? (C2) – What is the Internet? (C3) – Understand what to do if messages pop up on our devices (N1) – Understand anyone can put something online (fakenews) **Children will be able to:** (L2) How to choose what to do and what not to do online (P3) - How to search safely	**Children will know:** (C5) – Secure, strong passwords are important (L2) Getting enough sleep is related to your well-being **Children will understand:** (L1) Understand a healthy balance of online and offline activities can affect our well-being (S1) Understand friends should behave appropriately and kindly at all time (C1) – How do adverts target us? (C2) – Understand websites store a lot of our information **Children will be able to:** (P2) Keeping your personal information safe (N1) – Develop digital literacy and analyse digital content	**Children will know:** (P1) People aren't always who they say they are (P2) – Keeping information safe (N2) – What does bias mean? (N3) – Echo chambers – what are they? **Children will understand:** (L1) Understand a healthy balance of online and offline activities can affect our well-being (S1) Understand friends should behave appropriately and kindly at all time (C3) – Understand copyright and that it can be illegal **Children will be able to:** (L3) How do you decide what is appropriate for your age? (C4) – Recognising suspicious messages and what to do	**Children will know:** (S1) We have control and consent of our online and offline world (C1) – Online adverts and understanding how money is made online (C5) – Understand in-app purchases and what to look for **Children will understand:** (L1) Understand social media anxiety (L2) Body image and self-esteem (L5) – Understand that online stereotypes can influence us (L6) – Understand why we have PEGI ratings (P3) – Understand attention can be healthy and unhealthy (P4) – Understand the dangers and signs of strangers online (N3) – Understand it is easy to edit images and 'Fake News (N5) – How echo chambers affect the views and opinions we see **Children will be able to:** (C5) – Secure, strong passwords are important (N1) – Become digitally literate and analyse content	**Children will know:** (L4) – Is there a digital '5 a day'? (N4) – How can we verify online information? **Children will understand:** (L1) Understand social media anxiety (L2) Body image and self-esteem (S2) – Understand some people's behavior is different online and how to deal with it (P1) – Protecting our identity including sensitive information such as opinions and emotions (C2) – Understanding how our information is used, and how Ts and Cs do (N2) – Understand things can be misleading and biased; perspective is needed **Children will be able to:** (L3) – Recognise accurate and inaccurate health information (P2) – Protecting the images of us online

EYFS Framework National Curriculum		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	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	Use technology safely, respectfully and responsibility; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration	Use technology safely, respectfully and responsibility; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration	Use technology safely, respectfully and responsibility; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration	Use technology safely, respectfully and responsibility; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Use search technology effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Understand computer networks including the internet; how they can provide multiple services, such as world wide web; and the opportunities they offer for communication and collaboration