Curriculum Overview Document ICT

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Using the mouse (left-click) Navigating menus using buttons and arrows. Colouring and painting on-screen. Using drag and drop. How is ICT used in the outside world? (weekly discussion)		Expanding use of the mouse (right-click, double click) when playing games. Using buttons and arrows to move around between screens. Spot the difference and matching on-screen. How is ICT used in the outside world? (weekly discussion)		Giving instructions using ICT (using arrows). What to do if you get "lost" online. Sorting & ordering items using ICT. Using simple simulations. How is ICT used in the outside world? (weekly discussion)	
Year 1	Different ways to control toys. Creating emojis to communicate mood. Uses brushes and stamps to create scenes and pictures Using 2Count to create a pictogram to show results of a vote. Sorting on-screen items by grouping.		Exploring how to give instructions in different software. Considering how we treat each other when using ICT. What is personal information? How can we protect it? Using 2Publish to consider our 5 senses in Winter. Manipulating images (resize, rotate, move) to dress a character.		Comparing vague and specific instructions when programming. Comparing different software to create similar outcomes. How do computers make pictures? Exploring pixels. Identifying key vocabulary using paint pens. Creating virtual structures. Grouping & sorting on screen using Venn diagrams.	
Year 2	Using brushes & stamps to create images & stop motion animation Making choices in simulations. Creating a virtual island (Kodu) & programming an avatar to explore Finding and saving images using Google. Explore how photos and comments can share too much information. Who should you tell? (E-Safety Poster). Creating Memes to communicate mood.		Creating a flag by combing Paint tools, images & shapes. Using Excel to collect & present information on Australian animals and use the data to answer questions. Sorting Australian animals using a branching database. Using Google Earth to locate and explore specific locations. Programming BBC Micro:Bit to create name badges.		What is a simulation and why should we use them? Using stamps and tools to create an original plant/flower. Creating a time line to show key communication inventions. Exploring Food Chains using BBC Food Chain Challenge. Creating a multimedia slide to educate others. Copy, pasting & formatting images to create a map. Training virtual AI to recognise trash (Hour of Code).	
Year 3	Creating a multimedia PowerPoint on the topic of Usworth Colliery and Jackie Bassett. Turning ourselves into miners by manipulating photos in PPT. Sending & replying email & downloading & uploading attachments. Collecting and sorting data in Excel & a branching database. Creating a virtual river, mountain and valley in Kodu. Creating tips & an avatar to stay safe on the computer.		Scratch programming to collect item using IF statements. What is the difference between hardware and software? What is a variable and how does it affect simulations? Creating tips to stay safe online (SMART crew). Using effects in PowerPoint for emphasis. What is cyber-bullying and how can it take place.		Use repeat in instructions to create 2D shapes (Logo). Create a branching database to sort 2D shapes. Create a map of Egypt (reformatting shapes & text boxes). Use Google Earth to explore Egypt. Capture images in a variety of ways. Using paint & image tools to turn themselves into an Egyptian. Creating a virtual marble run.	
Year 4	Creating postcards from Hadrian's Wall (AI & Image manipulation) Recording Christmas jokes and altering the pitch and tempo. Using text-based programming to create a poppy in Logo. Creating a blog post and discussing how to do this safely. Using Google Earth coordinates to locate key landmarks. Using IF statements & loops to solve problems (Hour of Code).		Explore adding elements to a circuit using a simulation. Who said what? Identifying fact & opinion. What is cyber-bullying and what should you do if it happens? (PPT). Discuss the websites used and if we trust them. Altering inputs on BBC Micro:Bit to create an Easter message.		Creating a table in Publisher and considering how ICT helps us. Using inputs and outputs to control simulations in FlowGrid. Using text, images & animation to show the Water Cycle (PPT). Using Excel to collect data to compare weather. Creating an appropriate graph to effectively compare the data. Do you trust this website? Examining the Met Office website.	
Year 5	Creating a firework display using text-based programming (Logo). What is a spreadsheet model and why is it useful? Using formulas. Using layered images to turn themselves into astronauts. Reformatting text & shapes & using animations to label in PPT. Programming outputs (Christmas decorations) in a simulation. Using Paint3D tools to show the life cycle of an animal. Reality River from Google Interland.		How do search engines work? Acting out how searches work & exploring ways to narrow our results. Creating a cyber-bullying comic Programming a Lego robot to solve a problem Independently selecting appropriate software and methods to sort images into human and physical features. Creating a quiz in Scratch, including researching questions.		Investigating factors that affect if we trust an online source What is the effect of comments? Sharing selfies & comments What are the key parts of a computer network? Mapping a simple network. Using Excel formulas to present data from a Science experiment. Using a list variable to answer questions in Scratch.	
Year 6	Creating "tweet" style message effectively & safely to share. Creating a comic to tell the story of Ran to a chosen audience. Creating an AI inspired car game in Scratch using sensors & a timer. Creating a firework display by building up and altering layers. Using formulas & functions to calculate costs for a recipe. Use broadcasts in Scratch Pi to share a message using LEDs.		Creating a graph to compare password length & security. Research & present to the class information about and solutions to a given online threat Revisit how search engines work linked to Cloud storage & AI. Exploring how data is interpreted as binary code & how this effects devices. Creating a magic 8 ball on Micro:bit using IF statements.		Using custom paths in PPT to show the journey of a blood cell. Why do people lie in cyber-space? Exploring online behaviour. Creating an E-safety poster in Paint.net by building up layers. Analysing an advert exploring manipulation of content Using extensions in Scratch to create a translator. Using Broadcasts in Scratch Pi to send Morse Code using LEDs. Considering if robotics is a positive or negative development.	