Holgate Primary and Nursery School

SUTTON ROAD PRIMARY SCHOOL AND NURSERY

Personal **R**esponsibility **I**n **D**elivering **E**xcellence

Computing Progression Overview

			Computing Curriculum Coverage							
			Nursery	**Reception / F2**	**Yr1**	**Yr2**	**Yr3**	**Yr4**	**Yr5**	**Yr6**
Statutory NC Content	**Skills Content**	**Computer Science**			Understand what algorithms are and how these are implemented as programs on digital devices and understand 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 and how these are implemented as programs on digital devices and understand 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 systems; 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 the logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 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	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 the logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 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	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 the logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 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	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; 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 the logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 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

					Explain that an algorithm is a set of instructions. Control the nature of events: repeat, loops, single events and add and delete features. Make good predictions of what is going to happen in a program. For example, where the turtle might go. Work out what is wrong when the steps are out of order in instructions. Say if something is wrong when the steps are out of order in instructions. Try and fix a code if it isn't working properly (debugging). Use key vocabulary to demonstrate knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.	Explain an algorithm is a set of instructions to complete a task. Carefully plan an algorithm so it will work when transferred into a code. Design a simple program using 2Code that achieves a purpose. Find and correct some errors in a program. Predict what will happen in a program. Spot something in a program that has an action or effect. Use key vocabulary to demonstrate knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink. -	Can make a real-life situation into an algorithm for a program. Design an algorithm carefully, thinking about its purpose and how to turn it into a code. Can identify an error in their program and fix it. Can identify the difference between the effect of a timer or repeat command in my code. Know that a variable stores information while a program is running (executing). Can read programs with several steps and predict what it will do. Identify different ways that the internet can be used for communication. Use emails to respond to other appropriately and attach files. Use logical thinking to solve an open-ended problem by breaking it up into smaller parts. Write a program, putting commands into a sequence to achieve a specific outcome. Use variables to create an effect, e.g. repetition, if, when, loop. Use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable.	Can turn a real-life situation into an algorithm, using a design that show how to accomplish this in code. Use repetition in a code. For example, using a loop that continues until a condition is met such as the correct answer being entered. Can use timers within a program, applying these more accurately to create repetition effects. Can use decision in programming. Use variables within a program and know how to change the value of variables. Use the user inputs and output features in a program. Identify errors in a code using a variety of methods, such as steeping through lines of codes and fixing them. Can read programs that contain several steps and predict the outcomes with increasing accuracy. Recognise the main component parts of hardware which allow computers to join and form a network. Understand that network and communication. Components can be found in many different devices which allow them to join the internet.	Make more complex real-life problems into algorithms for a program. Can test and debug programs live during work. Convert (translate) algorithms that contain sequence, selection and repetition into code that works. Use sequence, selection, reptation and other coding structures into a code. Organise codes carefully. Use logical methods to identify the cause of any bug with support to identify the specific line of code. Know the importance of computer networks and how they help solve problems and enhance communication. Recognise the main dangers that can be perpetuated via computer networks. Explain what personal information and how to keep it safe. Use the most appropriate form of online communication according to the digital content. Follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols. Use key vocabulary to demonstrate knowledge and understanding in this strand: flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.	Can turn a complex - programming task into an algorithm. Identify the important aspects of a programming task (abstraction). Can decompose important aspects of a programming task in a logical way, identifying appropriate coding structures that would work. Can test and debug a program as they work on it and use logical methods to identify a cause of a bug. Identify a specific line of code that is causing a problem in a program and attempt to fix it. Can translate algorithms that include sequence, selection and repetition into a code and nest these structures within each other. Can use inputs and outputs within their coded programs such as sound, movement and buttons and represent the state of an object. Can interpret a program in parts and can make logical attempts to put the separate parts together in an algorithm to explain the program. Can explain the difference between the internet and the World Wide Web. Can explain what WAN and LAN is and describe the process of how access to the internet in school is possible.

		Retrieval of prior knowledge			Follow simple oral instructions. **(EYFS)** Spot simple patterns, such as similarities and differences. **(EYFS)** Sequence simple familiar tasks. **(EYFS)** Input a simple sequence of commands to control a digital device with support. **(EYFS)**	Explain that an algorithm is a set of instructions. **(Year 1)** Know that an algorithm written for a computer is called a program. **(Year 1)** Work out what is wrong when the steps are out of order in instructions. **(Year 1)**	Write algorithms for everyday tasks. **(Year 2)** Use logical reasoning to predict the outcome of algorithms. **(Year 2)** Debug algorithms. **(Year 2)** Understand programs follow precise instructions. **(Year 2)** Create programs using different digital devices E.g. Bee Bot or 2Code. **(Year 2)** Debug programs of increasing complexity. **(Year 2)** Use logical reasoning to predict the outcome of simple programs. **(Year 2)**	Understand abstraction is focusing on important information. **(Year 3)** Identify patterns in an algorithm. **(Year 3)** Design a program, create it using this design and evaluate it. **(Year 3)** Create a sequence of code. **(Year 3)** Work with different inputs. **(Year 3)** Understand that computers in a school are connected in a network and why this is. **(Year 3)**	Write more precise algorithms for use when programming. **(Year 4)** Use simple selection and repetition in algorithms. **(Year 4)** Use repetition in programs. **(Year 4)** Use simple selection in programs. **(Year 4)** Use logical reasoning to systematically detect and correct errors in programs. **(Year 4)**	Use abstraction to focus on what's important in my design. **(Year 4)** Use logical reasoning to explain how a variety of algorithms work. **(Year 5)** Evaluate the effectiveness of algorithms. **(Year 5)** Use a variety of selection commands in programs. **(Year 5)** Use conditions in repetition commands. **(Year 5)** Work with variables. **(Year 5)**

		New Knowledge		Follow simple oral instructions. Spot simple patterns, such as similarities and differences. Sequence simple familiar tasks. Use a mouse, touch screen or appropriate access device to target and select options on screen. Input a simple sequence of commands to control a digital device with support.	Explain that an algorithm is a set of instructions. Know that an algorithm written for a computer is called a program. Work out what is wrong when the steps are out of order in instructions. Say if something does not work that it is because the code is incorrect. Try and fix code if it isn't working properly. Make good guesses of what is going to happen in a program.	Write algorithms for everyday tasks. Use logical reasoning to predict the outcome of algorithms. Understand decomposition is breaking objects/processes down. Debug algorithms. Understand programs follow precise instructions. Create programs using different digital devices E.g. Bee Bot or 2Code. Debug programs of increasing complexity. Use logical reasoning to predict the outcome of simple programs.	Create algorithms for my programming projects. Decompose projects (such as an animation) into steps to create an algorithm. Understand abstraction is focusing on important information. Identify patterns in an algorithm. Design a program, create it using this design and evaluate it. Create a sequence of code. Work with different inputs. Understand that computers in a school are connected in a network and why this is. Understand the difference between the Internet and the World Wide Web (WWW).	Use abstraction to focus on what's important in my design. Write more precise algorithms for use when programming. Use simple selection and repetition in algorithms. Use logical reasoning to detect and correct errors in programs. Use repetition in programs. Use simple selection in programs. Work with different outputs. Use logical reasoning to systematically detect and correct errors in programs. Understand that servers on the Internet are located across the planet. Understand how email is sent across the Internet Understand how the Internet enables us to collaborate.	Solve problems by decomposing them into smaller parts. Use selection in algorithms. Use logical reasoning to explain how a variety of algorithms work. Evaluate the effectiveness of algorithms. Create programs by decomposing them into smaller parts. Use a variety of selection commands in programs. Use conditions in repetition commands. Work with variables. Create programs that control or simulate physical systems. Evaluate my work and identify errors. Understand how we view web pages on the Internet. Use search technologies effectively. Understand that web spiders index the web for search engines. Appreciate how pages are ranked in a search engine.	Write precise algorithms for use when programming. Decompose a design or code to focus on specific parts. Use abstraction to hide complexity in my design or code. Recognise and make use of patterns in my design and code. Critically evaluate my work and suggest improvements. Use a range of sequence, selection and repletion commands to implement my design. Identify the need for, and work with variables. Create procedures to hide complexity in programs. Identify and write generic code for use across multiple projects. Critically evaluate my work and suggest improvements. Understand what HTML is and recognize HTML tags. Know a range of HTML tags and can remix a web page. Create a webpage using HTML.
		Possible Apps			Purple Mash 2Code Purple Mash 2Go Beebot	Purple Mash 2Code Beebot,	Purple Mash 2Code Purple Mash 2Email Beebot	Purple Mash 2Code Purple Mash Logo Beebot	Purple Mash 2Code Purple Mash 2DIY 3D Beebot	Purple Mash 2Code Beebot

		Information Technology	**To speak with EYFS leads and heads of schools to decide on the implementation for nursery.**		Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	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 and analysing, evaluating and presenting data and information.	Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content 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 and analysing, evaluating and presenting data and information.	Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content 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 and analysing, evaluating and presenting data and information.	Use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content 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 and analysing, evaluating and presenting data and information.
				-	Sort content into sound, pictures and text. Add sound, pictures and text to a program. Change content on a file such as text, sound and images. Name digital content/files. Save digital content/files. Find digital content/files already created.	Organise data – for example, using a database. Find data using specific searches. Use several programs to organise information – for example, using databases or spreadsheets. Edit digital data such as data in music composition Software. Name, save and find digital content/files. Include photos, text and sound in digital content.	Carry out searches to find digital content on a range of online systems, such as an internet search engine. Collect data and input it into software. Analyse data using features within software to help such as, formula in spreadsheets. Present data and information using different software such as branching database or spreadsheet graphing functionality. Consider what the most appropriate software to use when given a task. Create purposeful (appropriate) content and attach this to emails.	Understand the purpose of a search engine and the main features within it. Look at information on a webpage and make predictions about the accuracy of information contained within it. Create and improve solutions to a problem based on feedback. For example, create a program using a coding app. Review solutions that others have created, using a checklist of criteria. Work collaboratively to create content and solutions. Share digital content using a variety of applications such as: blogging sites, email apps and website notice boards.	Search precisely when using a search engine. For example, knowing you can add additional words or removes words to help find better results. Explain in detail how accurate, safe and reliable the content is on a webpage. Make appropriate improvements to digital work created. Comment on how successful a digital solution is to digital work created. For example, a program built in a coding app that has a specific purpose. Work collaboratively with others creating solutions to problems using appropriate software such as a coding app. Use collaborative modes within a digital concept mapping app to work with others and share pictures, sounds, notes and hyperlinks.	Use filters when searching for digital content. Explain in detail how accurate and reliable a webpage and its content are. Compare a range of digital content sources and rate them in terms of content quality and accuracy. Consider the intended audience carefully when designing and making digital Content. Design and create online blogs. Use criteria to evaluate the quality of own and others digital solutions, suggesting refinements.

		Retrieval of prior knowledge (Word Processing / Typing)			Play on a touch screen game and use computers/keyboards/ Mouse in role play. **(EYFS)** Type letters with increasing confidence using a keyboard and tablet. **(EYFS)** Dictate short, clear sentences into a digital device. **(EYFS)**	Confidently type words quickly and correctly on a digital device. **(Year 1)** Use the space bar to make space and delete to delete letters/words. **(Year 1)** Dictate into a digital device mostly accurately and with punctuation. **(Year 1)**	Confidently type words quickly and correctly on a digital device. **(Year 1)** Copy and paste images and text. **(Year 2)** Add images alongside text in a word-processed document. **(Year 2)**	Edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. **(Year 3)** Use cut, copy and paste to quickly duplicate and organise text. **(Year 3)**	Combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. **(Year 4)**	Organise and reorganise text on screen to suit a purpose. **(Year 5)**
		New Knowledge (Word Processing/Typing)		Play on a touch screen game and use computers/keyboards/ Mouse in role play. Type letters with increasing confidence using a keyboard and tablet. Dictate short, clear sentences into a digital device.	Confidently type words quickly and correctly on a digital device. Use the space bar to make space and delete to delete letters/words. Make a new line using enter/return. Dictate into a digital device mostly accurately and with punctuation.	Use the space bar only once between words and use touch or a mouse to navigate to words and letters to edit. Copy and paste images and text. Use caps locks for capital letters. Add images alongside text in a word-processed document. Dictate longer passages into a digital device with accurate punctuation.	Use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l. Edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. Use cut, copy and paste to quickly duplicate and organise text.	Combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text. Use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through voice recognised technology.	Start to apply other useful effects to my documents such as hyperlinks. Import sounds to accompany and enhance the text in my document. Organise and reorganise text on screen to suit a purpose.	Confidently choose the best application to demonstrate my learning. Format text to suit a purpose. Publish my documents online regularly and discuss the audience and purpose of my content.
		Retrieval of prior knowledge (Data Handling)			Identify a chart. **(EYFS)** Sort physical objects, take a picture and discuss what I have done. **(EYFS)** Present simple data on a digital device. **(EYFS)**	Sort images or text into two or more categories on a digital device. **(Year 1)** Collect data on a topic. **(Year 1)** Create a tally chart and pictogram. **(Year 1)** Orally explain what I have done. **(Year 1)**	Sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software. **(Year 2)**	Start to input simple data into a spreadsheet. **(Year 3)**	Create my own online multiple-choice questionnaire. **(Year 4)** Input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. **(Year 4)**	Create and publish my own online questionnaire and analyse the results. Use simple formulae to solve calculations including =sum and other statistical functions. **(Year 5)** Edit and format difference cells in a spreadsheet. **(Year 5)**

		New Knowledge (Data Handling)		Identify a chart. Sort physical objects, take a picture and discuss what I have done. Present simple data on a digital device.	Sort images or text into two or more categories on a digital device. Collect data on a topic. Create a tally chart and pictogram. Orally explain what I have done.	Sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software. Record myself explaining what I have done and what the data shows me. Create a branching database using questions.	Create my own sorting diagram and complete a data handling activity with it using images and text. Start to input simple data into a spreadsheet. Create a feelings chart exploring a story or character's feelings.	Create my own online multiple-choice questionnaire. Input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. Understand how data is collected.	Create and publish my own online questionnaire and analyse the results. Use simple formulae to solve calculations including =sum and other statistical functions. Edit and format difference cells in a spreadsheet.	Write spreadsheet formula to solve more challenging maths problems. Create and publish my own online quiz with a range of media (images and video)
		Retrieval of Prior Knowledge (Presentations, web design and eBooks)			Record my voice over a picture. **(EYFS)** Create a simple digital collage. **(EYFS)**	Add labels to an image. **(Year 1)** Order images to create a simple storyboard. **(Year 1)** Sequence a series of pictures to explain my understanding of a topic. **(Year 1)**	Add labels to an image. **(Year 1)** Add voice labels to an image. **(Year 2)** Add a voice recording to a storyboard. **(Year 2)** Import images to a project from the web and camera roll. **(Year 2)**	Create an interactive comic with sounds, formatted text and video. **(Year 3)** Create a simple digital timeline/mindmap. **(Year 3)**	Create a simple web page. **(Year 3)** Create an interactive quiz eBook introducing hyperlinks. **(Year 4)** Create an eBook with text, images, and sound. **(Year 4)** Create a presentation demonstrating my understanding with a range of media. **(Year 4)**	Collaborate with peers using online tools, e.g. blogs, **(Year 5)** Create and export an interactive presentation including a variety of media, animations, transitions, and other effects. **(Year 5)** Create an interactive guide to an image by embedding digital content and publishing it online. **(Year 5)** Create a webpage and embed video. **(Year 5)**
		New Knowledge (Presentations, web design and eBooks)		Record my voice over a picture. Create a simple digital collage. Move and resize images with my fingers or mouse.	Add labels to an image. Order images to create a simple storyboard. Create a simple spider diagram. Sequence a series of pictures to explain my understanding of a topic.	Add voice labels to an image. Add a voice recording to a storyboard. Add speech bubbles to an image to show what a character thinks. Import images to a project from the web and camera roll.	Create an interactive comic with sounds, formatted text and video. Annotate an image with videos. Create a simple web page. Create a simple digital timeline/mindmap.	Create an interactive quiz eBook introducing hyperlinks. Create an eBook with text, images, and sound. Create a presentation demonstrating my understanding with a range of media. Create a digital timeline/mindmap and include different media – sound and video.	Collaborate with peers using online tools, e.g. blogs+ Create and export an interactive presentation including a variety of media, animations, transitions, and other effects. Create an interactive guide to an image by embedding digital content and publishing it online. Create a webpage and embed video.	Create a web site which includes a variety of media. Design an app prototype that links multimedia pages together with hyperlinks. Choose applications to communicate to a specific audience. Evaluate my own content and consider ways to improvements.

		Retrieval of Prior Knowledge (Animation)			Animate a simple image to speak in role. **(EYFS)** Create a simple animation to tell a story including more than one character. **(EYFS)**	Add filters and stickers to enhance an animation of a character. **(Year 1)** Create an animation to tell a story with more than one scene. **(Year 1)** Add my own pictures to my story animation. **(Year 1)**	Create multiple animations of an image and edit these together. **(Year 2)** Create a simple stop motion animation. **(Year 2)**	Create animations of faces to speak in role with more life-like realistic outcomes. **(Year 3)** Use animation tools in presenting software to create simple animations. **(Year 3)**	Take multiple animations of a character I have created and edit them together for a longer video. **(Year 4)**	Record animations of different characters and edit them together to create an interview. **(Year 5)** Create flip book animation using digital drawings and export as a Gif or video. **(Year 5)**
		New Knowledge (Animation)		Animate a simple image to speak in role. Create a simple animation to tell a story including more than one character.	Add filters and stickers to enhance an animation of a character. Create an animation to tell a story with more than one scene. Add my own pictures to my story animation.	Create multiple animations of an image and edit these together. Create a simple stop motion animation. Explain how an animation/flip book works.	Create animations of faces to speak in role with more life-like realistic outcomes. Improve stop motion animation clips with techniques like onion skinning. Use animation tools in presenting software to create simple animations.	Take multiple animations of a character I have created and edit them together for a longer video. Use software to create a 3D animated story. Use line draw tool to create animations.	Record animations of different characters and edit them together to create an interview. Create flip book animation using digital drawings and export as a Gif or video.	Mix animations and videos recordings of myself to create video interviews. Plan, script and create a 3D animation to explain a concept or tell a story. Choose and create different types of animations to best explain my learning.
		Retrieval of Prior Knowledge (Photography and Digital Art)			Take a photograph and use it in an app. **(EYFS)** Use a painting app and explore the paint and brush tools. **(EYFS)**	Edit a photo with simple tools (e.g. lighten/darken). **(Year 1)** Use a paint/drawing app to create a digital image. **(Year 1)** Begin to cut out an image to layer on another image. **(Year 1)**	Edit a photo (crop, filters, mark up etc). **(Year 2)** Select and use tools to create digital imagery - controlling the pen and using the fill tool. **(Year 2)**	Confidently take and manipulate photos. **(Year 3)** Create a digital image using a range of tools, pens, brushes and effects. **(Year 3)**	Enhance digital images and photographs using crop and brightness tools. **(Year 4)**	Enhance digital images and photographs using contrast and resize tools. **(Year 5)** Link and explain how to photoshop images and how this is used in the media. **(Year 5)**
		New Knowledge (Photography and Digital Art)		Know the difference between a photograph and video. Take a photograph. Take a photograph and use it in an app. Use a painting app and explore the paint and brush tools.	Edit a photo with simple tools (e.g. lighten/darken). Use a paint/drawing app to create a digital image. Begin to cut out an image to layer on another image.	Edit a photo (crop, filters, mark up etc). Select and use tools to create digital imagery - controlling the pen and using the fill tool. Cut images with accuracy to layer on other images.	Confidently take and manipulate photos. Create a digital image using a range of tools, pens, brushes and effects. Manipulate shapes to create digital art. Draw a series of images and export as an animated GIF	Enhance digital images and photographs using crop and brightness. Manipulate shapes to create digital art. Draw a series of images and export as an animated GIF	Enhance digital images and photographs using contrast and resize tools. Link and explain how to photoshop images and how this is used in the media.	Edit a picture to remove items, add backgrounds, merge two photos. Evaluate and discuss images explaining effects and filters that have been used to enhance the media. Use a 3D drawing app to create a realistic representation of world Objects.
		Retrieval of Prior Knowledge (Sound)			Record sounds with different resources. **(EYFS)** Find ways to change your voice (tube, tin can, shouting to create an echo). **(EYFS)** Record sounds/voices in storytelling and explanations. **(EYFS)**	Create a sequence of sounds (instruments, apps/software). **(Year 1)** Record my voice and add different effects. **(Year 1)**	Create a musical composition using software. **(Year 2)**	Create and edit purposeful compositions using music software to create mood or a certain style. **(Year 3)** Experiment with live loops to create a song. **(Year 3)**	Edit sound effects for a purpose. **(Year 4)** Create a simple four chord song following the correct rhythm. **(Year 4)**	Add voice over to clips (volume, pitch, fade, effect) to create a podcast. **(Year 5)** Create a remix of a popular song. **(Year 5)**

		New Knowledge (Sound)		Record sounds with different resources. Find ways to change your voice (tube, tin can, shouting to create an echo). Record sounds/voices in storytelling and explanations.	Create a sequence of sounds (instruments, apps/software). Explore short and long sounds. Record my voice and add different effects.	Create a musical composition using software. Record my own sound effects. Record my voice over a composition to perform a song.	Create and edit purposeful compositions using music software to create mood or a certain style. Experiment with live loops to create a song.	Edit sound effects for a purpose. Create a simple four chord song following the correct rhythm. Record a radio broadcast or audiobook.	Add voice over to clips (volume, pitch, fade, effect) to create a podcast. Create a remix of a popular song.	Edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast). Compose a soundtrack that can be added to a film project.
		Digital Literacy			Recognise common use of information technology beyond school Use technology safety 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	Recognise common use of information technology beyond school Use technology safety 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 responsibly; recognise acceptable/unacceptable behaviour; Identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; Identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; Identify a range of ways to report concerns about content and contact.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; Identify a range of ways to report concerns about content and contact.

					Say what technology is. Say what examples of technology are in school. Say what examples of technology are at home., Keep login information safe. Save work in a safe place such as a 'my work' folder. Recognise age-appropriate websites. Seek help from an adult when they see something that is unexpected or worrying. Use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet.	Find information needed using a search engine. Know the consequences of not searching online safely. Share work and communicate electronically. Report unkind behaviour and things that upset me online, to a trusted adult. See where technology is used at school such as in the office or canteen. Understand that creations such as programs in 2Code, need similar skills to the adult world.	Create a secure password. Explain the importance of having a secure password and not sharing it with others. Explain the negative consequences of not keeping passwords safe and secure. Understand the importance of keeping safe online and behaving respectfully. Use communication tools respectfully and use good etiquette. Report unacceptable content and content online in more than one way to a trusted adult. Use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media. Reflect on their own digital footprint and behaviour online. Identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying. Seek help from an adult when they see something that is unexpected or worrying. Demonstrate understanding of age-appropriate websites and adverts. Use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.	Have a good understanding of the online safety rules we learn at school. Demonstrate how to use different online technologies safely. Understand that they have a right to privacy both on and offline. Recognise that their wellbeing can be affected by how I use technology. Report with ease any concerns with content and contact online and how immediate strategies to keep safe.	Have a secure knowledge of online safety rules taught at school. Demonstrate the safe and respectful use of different online technologies and online services. Always relate appropriate online behaviour to their right to have personal privacy. Know how to not let their mental wellbeing or others be affected by use of online technologies and services. Tell you about copyright and acknowledge the sources of information. Use strategies to check the reliability of information (cross-check with another source such as books). Use key vocabulary to demonstrate knowledge and understanding in this strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar. Judge what sort of privacy settings might be relevant to reducing different risks. Seek help from an adult when they see something that is unexpected or worrying. Discuss scenarios involving online risk. Use key vocabulary to demonstrate knowledge and understanding in this strand: spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.	Can demonstrate safe and respectful use of a range of different technologies and online services. Can identify more discrete inappropriate behaviours online. For example, someone who may be trying to groom me or someone else. Can use critical thinking to help stay safe online. To know the value of protecting their privacy and others online. Talk about the way search results are selected and ranked. Check the reliability of a website, including the photos.

		Retrieval of prior knowledge				I know what is meant by technology **(Year 1)**. I know a variety of examples of technology both in and out of school **(Year 1)**. I know that I should keep information, such as usernames and passwords, private and actively demonstrate this in lessons **(Year 1)**. I know how to save work in A private space **(Year 1).**	I know how to effectively retrieve relevant, purposeful digital content using a search engine. **(Year 2)** I know how to apply learning of effective searching beyond the classroom, and I know how to share this knowledge. **(Year 2)** I know how to make links between technology I see around me, coding and multimedia work we do in school. **(Year 2)** I know the implications of inappropriate online searches. **(Year 2)** I know how documents and information are shared electronically. **(Year 2)** I know how to use programs such as email safely and know ways of reporting inappropriate behaviours and content to a trusted adult. **(Year 2)**	I know how to demonstrate the importance of having a secure password and not sharing this with anyone else. **(Year 3)** I know how to explain the negative implications of failure to keep passwords safe and secure. **(Year 3)** I know the importance of staying safe and the importance of my conduct when using familiar communication tools. **(Year 3)** I know more than one way to report unacceptable content and contact. **(Year 3)**	I know how to explore key concepts relating to online safety using concept mapping. **(Year 4)** I know how to help others to understand the importance of online safety. **(Year 4)** I know a range of ways of reporting inappropriate content and contact. **(Year 4)**	I have a secure knowledge of common online safety rules. **(Year 5)** I know how to apply online safety rules by demonstrating the safe and respectful use of a few different technologies and online services. **(Year 5)** I know how to relate appropriate online behaviour to my right to personal privacy and mental wellbeing. **(Year 5)**

		New Knowledge			I know what is meant by technology. I know a variety of examples of technology both in and out of school. I know that I should keep information, such as usernames and passwords, private and actively demonstrate this in lessons. I know how to save work in A private space.	I know how to effectively retrieve relevant, purposeful digital content using a search engine. I know how to apply learning of effective searching beyond the classroom, and I know how to share this knowledge. I know how to make links between technology I see around me, coding and multimedia work we do in school. I know the implications of inappropriate online searches. I know how documents and information are shared electronically. I know how to use programs such as email safely and know ways of reporting inappropriate behaviours and content to a trusted adult.	I know how to demonstrate the importance of having a secure password and not sharing this with anyone else. I know how to explain the negative implications of failure to keep passwords safe and secure. I know the importance of staying safe and the importance of my conduct when using familiar communication tools. I know more than one way to report unacceptable content and contact.	I know how to explore key concepts relating to online safety using concept mapping. I know how to help others to understand the importance of online safety. I know a range of ways of reporting inappropriate content and contact.	I have a secure knowledge of common online safety rules. I know how to apply online safety rules by demonstrating the safe and respectful use of a few different technologies and online services. I know how to relate appropriate online behaviour to my right to personal privacy and mental wellbeing.	I know how to demonstrate the safe and respectful use of a range of different technologies and online services. I know how to identify more discreet inappropriate behaviours through developing critical thinking. I know how to recognise the value in preserving privacy when online for my own and other people's safety.

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	**1.1** Online safety	**1.3** Pictograms	**1.5** Maze Explorers	**1.7** Coding	**1.8** Spreadsheets	**1.9** Tech outside school
Year 2	**2.1** Coding	**2.2** Online safety	**2.3** Spreadsheets	**2.5** Effective searching	**2.7** Making music	**2.8** Presenting ideas
Year 3	**3.1** Coding	**3.2** Online safety	**3.3** Spreadsheets	**3.5** Email	**3.8** Graphing	**3.9** Presenting (PowerPoint)
Year 4	**4.1** Coding	**4.2** Online safety	**4.3** Spreadsheets	**4.5** Logo	**4.6** Animations	**4.7** Effective searching
Year 5	**5.1** Coding	**5.2** Online safety	**5.3** Spreadsheets	**5.4** Databases	**5.5** Game creator	**5.9** Using external devices
Year 6	**6.1** Coding	**6.2** Online safety	**6.4** Blogging	**6.6** Networks	**6.7** Quizzing	**6.9** Excel spreadsheets