Severnbanks Primary School

Progression Map

Subject: Computing

Intent: In Computing we intend to teach the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. We will build on this knowledge and understanding so that pupils use information technology to create programs, systems and a range of content. We will focus on being safe whilst working in a digital environment and understand the digital footprint we leave. The curriculum will develop pupil's digital literacy – so that they able to use, and express themselves at a level suitable for the future workplace and as active participants in a digital world. The key skills we seek to embed and enrich are: computational thinking, programming, problem solving, creativity, logical thinking, communication, cooperation, responsibility, safety, control and confidence.

We aim to expose students to a variety of Computing pedagogy, give them opportunities to use a wide range of resources, in performances and to witness good 'Computing' through visits to and visits from external companies which will enrich their learning experience both inside and outside the classroom. It is our intent that the skills and knowledge learned are nurtured and developed throughout their school experience and that students can challenge different ways of thinking and apply new ideas of their own to any aspect of education. We believe that demanding and challenging work is an entitlement to all students, rather than something that is an 'addition' or an 'enrichment'. It is our intent to push and challenge all students academically by combining computing skills with and in other learning areas, thus enhancing all learning, inspiring curiosity and creating memorable and exciting experiences.

We will give our children these opportunities:

To Code

This concept involves developing an understanding of instructions, logic and sequences.

To Connect

This concept involves developing an understanding of how to safely connect with others.

To Communicate

This concept involves using apps to communicate one's ideas.

To Collect

This concept involves developing an understanding of databases and their uses.

** https://microbit.org/teach/lessons/?filters=age-07-11yrs MICRO:BIT
** Flat File Database / Spreadsheets – sort Skills/Knowledge

	~~EYFS~~	Key Stage 1		Key Stage 2			
	~~Year R~~	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Word Processing / Typing							
Programme/Topic		Word Processing		Word Processing	Word Processing		
Knowledge		Edit work – make a space, delete words and letters, and make a new line.					
Skills	~~Type letters and numbers on a keyboard and tablet. Type symbols.~~	Type with increasing confidence on a digital device. Use the shift key. Save files. Use backspace, spacebar and enter. Use Undo and Redo buttons Format font: change the size of the font	Use the space bar once to create a space. Use touch or the mouse/cursor to navigate to words/letters to edit. Recognise and use Copy and Paste Use Caps Lock for capital letters Copy and paste images and text	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. Change the case of the text	Format images for a purpose Use formatting tools to create a specific layout Use the spall check tool Insert and format a table Change a page layout Create hyperlinks within a document Combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents,	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.

				Align text Bullets and numbering Use the <\ctrl> key Insert and format text boxes	eBooks, scripts, leaflets. 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 Siri and other AI technology		
		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, analysing, evaluating and presenting data and information.			
	Data Handling						
	~~Seesaw~~	Pic Collage	Google Sheets / Google Forms Excel		Numbers Kahoot	Databases Spreadsheets - Excel	Spreadsheets - Excel
	~~Identify a chart.~~ ~~Sort physical objects, take a photo 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 Record myself explaining what I	Sort digital objects into a range of charts e.g. Venn diagrams, Carroll diagram and bar charts using a range of apps & software Orally record myself explaining what data shows me Create a branching database using questions	Create me own sorting diagram and complete a data handling activity with it using images and text. Start to input data into a spreadsheet Create a feelings chart exploring a story or character feelings.	Create my own multiple choice questionnaire Input data into a spreadsheet and export data in a variety of ways: bar charts, pie charts etc. Understand how data is collected.	Creating a paper-based database Computer databases Using a database Using search tools Comparing data visually	Write spreadsheet formula to solve more challenging maths problems. Create and publish own online quiz with a range of media

		have done and what it shows me.				Databases in real life	
						Use a form to record information Create a database using cards Explain how information can be recorded Order, sort, and group data cards. To compare paper and computer-based databases. Explain what a field and a record is in a database. Navigate a flat-file database to compare different views of information Choose which field to sort data by to answer a given question To outline how you can answer questions by grouping and then sorting data Explain that data can be	Enter data and formulae into a spreadsheet Order and present data based on calculations Add, edit and calculate data Use a spreadsheet to solve problems Plan and calculate a spending budget Design a spreadsheet for a specific purpose

						grouped using chosen values Group information using a database Combine grouping and sorting to answer specific questions To explain that tools can be used to select specific data Choose which field and value are required to answer a given question Outline how 'AND' and 'OR' can be used to refine data selection Choose multiple criteria to answer a given question Explain that computer programs can be used to compare data visually Select an appropriate chart to visually compare data Refine a chart by selecting a particular filter	

						Explain the benefits of using a computer to create charts Use a real-world database to answer questions Ask questions that will need more than one field to answer Refine a search in a real-world context Present my findings to a group Create and publish online questionnaire and analyse results. Use simple formulae to solve calculations including =sum and other statistical functions Edit and format difference cells in a spreadsheet.	
		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, analysing, evaluating and presenting data and information.			
	Presentations, Web Design and eBook Creation						

						Internet Research and Webpage Design	Website Design
	~~Seesaw~~	Seesaw / Pic Collage	ThinkLink Book Creator	Balloon Stickies+ Book Creator Google Sites Keynote Adobe Spark Page	Google Sites, Book Creator, Keynote, PowerPoint, Wakelet, Adobe Spark Page, Thinglink,	Google Sites, Book Creator, Keynote, PowerPoint, Wakelet, Adobe Spark Page, Thinglink,	Google Sites, Book Creator, Keynote, PowerPoint, Wakelet, Adobe Spark Page, Thinglink,
Skill	~~Record my voice over a picture~~ ~~Create a 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/thought bubbles to an image to show what a character is thinking or saying 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.	Evaluate webpages Create a webpage layout Add text to a webpage layout Add images to a webpage layout Add hyperlinks into a webpage Publish and share my webpage -- Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 Create and export an interactive	Evaluate webpages Create a website structure Create hyperlinks Search for and attribute images Publish a website -- Create a web site which includes a variety of media. Design an app prototype that links multimedia pages together with hyperlinks. Choose applications to

						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.	communicate to a specific audience. Evaluate my own content and consider ways to improvements.
		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, analysing, evaluating and presenting data and information.			
Animation							
Knowledge				Puppetpals, ChatterPix Kids, Animate Anything, I Can Animate, iFunFace, Seesaw, Plotagon, Puppetmaster, Toontastic,	Pivot Animator		Scratch: Animated Stories
Skills	~~Animate a simple image to speak in role~~	Add filters and stickers to enhance an animation of a character Create an animation to tell a	Create multiple animations of an image and edit these together Create a simple stop motion animation	Create animations of faces to speak in role with more life-like realistic outcomes Improve stop motion animation	Describe early forms of animation before computers and how computers have made a difference. Create a short computer animation	Record animations of different characters and edit them together to	Create appropriate animations for a story scene.

	~~Create a simple animation to tell a story including more than one character~~	story with more than one scene Add my own pictures to my story animation	Explain how an animation/flip book works.	clips with techniques like onion skinning Use animation tools in presenting software to create simple animations.	using one or more moving stick figures. Create a recorded animation involving a number of moving characters on a background. Structure specific timing of animations using a time slider. Use a camera to create a short stop-motion animation film. Analyse and Evaluate software -- 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.	create an interview. Add green screen effects to a stop motion animation. Create flip book animation using digital drawings and export as a Gif or video	Structure and control the timing of events Control when objects need to be visible. Sequence events to create a story narrative. Add voice sounds to enhance an animated story. Add interactive user features to a scene or story. -- 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.

	[redacted]	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, analysing, evaluating and presenting data and information.			
Video Creation							
							Film Making
	~~Shadow Puppets Edu~~	Doink Greenscreen iMovie	Adobe Spark Video	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video, Videorama, Apple Clips Explain Everything	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video, Videorama, Apple Clips Explain Everything	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video, Videorama, Apple Clips Explain Everything	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video, Videorama, Apple Clips Explain Everything
Knowledge							
Skills	~~Know the difference between a photography and video.~~ ~~Record a short film using the camera~~ ~~Record and play a film~~ ~~Watch films back~~	Record a film using the camera app. Select images and record a voiceover. Highlight and zoom into images as I record.	Write and record a script using a teleprompter tool. Use tools to add effects to a video Begin to use green screen techniques with support	Sequence clips of mixed media in a timeline and record a voiceover Trim and cut film clips and add titles and transitions Independently create a green screen clip. Create my own movie trailer.	Add music and sound effects to my films Add animated titles and transitions Add simple subtitles to a video clip. Use confidently use green screen adding animated backgrounds.	Use cutaway and split screen tools in iMovie. Evaluate and improve the best video tools to best explain my understanding. Further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool.	Use appropriate software and other tools effectively to write a film script Locate and check appropriate digital content, and provide accurate crediting of sources Use digital recording devices to film and import into video editing software.

							Plan, conduct and import video interviews as part of a short film. Use video editing software to create a short film. Use video editing software to turn a film project into a finished movie and present it. -- Use the green screen masking tool with more than one character. Use picture in picture tools in iMovie. Add animated subtitles to my film to further enhance my creation. Create videos using a range of media - green screen, animations, film and image.

	[redacted]	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, analysing, evaluating and presenting data and information.			
Photography and Digital Art							
		Painting	Computer Art			3d Modelling Sketch-Up	
Knowledge							
Skills	~~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 Use a paint/drawing app to create a digital image Begin to cut out an image to layer on another image. -- Paint with different colours. Paint with different brushes Create shapes and fill areas Make changes to improve work Add text to a painting Use a computer program to make a poster	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. -- Create computer art Use a range of tools in a computer program to reproduce a style of art. Make and edit shapes to create a piece of art. Change the shade of a colour for effect.	Confidently take and manipulate photos Create a digital image using a range of tools, pens, brushes and effects Create transparent images with Instant Alpha	Enhance digital images and photographs using crop, brightness, contrast & resize Manipulate shapes to create digital art. Draw a series of images and export as an animated GIF	Make a digital photo using camera settings Enhance digital photos and images using crop, brightness 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 2 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

			Retrieve a file to edit in a computer program. Use a range of skills to create a piece of art.				
		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, analysing, evaluating and presenting data and information.			

Computer Science

Computation Thinking

		Programming Toys - BeeBots	Preparing for Turtle Logo Programming Turtle Logo and Scratch	Logo and Scratch	Programming Turtle Logo	Flowol	
Knowledge							
Skills	— ~~Follow simple oral algorithms~~ ~~Identify simple patterns~~ ~~Sequence simple familiar tasks e.g. brushing teeth; having a bath.~~	-- Understand what algorithms are Write simple algorithms Understand the sequence of algorithms is important Debug simple algorithms Understand that algorithms are implemented as programs on digital devices	-- Write algorithms for everyday tasks Use logical reasoning to predict the outcome of algorithms Understand decomposition is breaking objects/processes down Implement simple algorithms on digital devices (Bee Bots, Apps: Daisy the Dino) Debug algorithms	-- Create algorithms for use when programming Decompose tasks (such as animations) into separate steps to create an algorithm Understand abstraction is focusing on important information Identify patterns in an algorithm I can use repetition in algorithms	-- Use abstraction to focus on what's important in my design Write increasingly more precise algorithms for use when programming. Use simple selection in algorithms Use logical reasoning to detect and correct errors in programs	-- Solve problems by decomposing them into smaller parts Use selection in algorithms Recognise the need for conditions in repetition within algorithms Use logical reasoning to explain how a variety of algorithms work Use logical reasoning to detect and correct errors in algorithms Evaluate my work and identify errors	-- Recognise, and make use, of patterns across programming projects Write precise algorithms for use when programming Identify variables needed and their use in selection and repetition Decompose code into sections for effective debugging Critically evaluate my work and suggest improvements
		Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.		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			

	[redacted]	Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs		Use 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			
Coding and Programming							
	~~Beebot,~~ ~~Daisy The Dinosaur~~	**Programming with Scratch Jr**, **Programming Toys (BeeBots)**, Scratch Jnr, Kodable	**Preparing for Turtle Logo** Beebot, Scratch Jnr, Kodable, Tynker,	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds,	**Scratch: Quiz and Quizzes**	**Scratch Developing Games** Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds,	**Kodu**
	~~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~~ ~~(Bee Bot)~~	Create instructions using pictures. Know what an algorithm is. Say why it is important to be precise when writing an algorithm. Write instructions to program a person like a computer. Programme a BeeBot to move. Debug a BeeBot.	-- I understand programs execute by following precise and unambiguous instructions Create programs on a variety of digital devices Debug programs of increasing complexity Use logical reasoning to predict the outcome of simple programs	Write programs that accomplish specific goals Use repetition in programs I can work with various forms of input	Use simple selection in programs Work with various forms of output Use logical reasoning to systematically detect and correct errors in programs Work with various forms of output	Create programs by decomposing them into smaller parts Use selection in programs Use conditions in repetition commands Work with variables Create programs that control or simulate physical systems	Use a range of sequence, selection and repletion commands combined with variables as required to implement my design Create procedures to hide complexity in programs Identify and write generic code for use across multiple projects

		Programme a sequence to make a BeeBot move. Describe and use instructions to program a character. -- Create a simple program e.g. sequence of instructions for a Bee Bot Use sequence in programs Locate and fix bugs in my program				Evaluate my work and identify errors	Critically evaluate my work and suggest improvements Identify and use basic HTML tags (See Computer Networks objectives)
		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 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 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			
				Computer Networks			
Knowledge				Understand that computers in a school are	Understand that servers on the	Understand how we view web	Understand what HTML is

	[redacted]	connected together in a network Understand why computers are networked Understand the difference between the Internet and the World Wide Web (WWW)	Internet are located across the planet Understand how email is sent across the Internet Understand how the Internet enables us to collaborate	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	and recognize HTML tags Know a range of HTML tags and can remix a web page Create a webpage using HTML
Skills					
		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. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.			

Online/E-Safety							
Online/E-Safety can be taught as a unit, and additional links must be made across other areas of computing to continue to build upon knowledge and understanding. Teacher's will make these links, in –line with each class.							
Programme		Desktop computers or laptops with a simple painting application. web browser and Internet access. web browser and chosen email account.	Search engine of choice available on interactive whiteboard	Microsoft word/IWB – examples of emails, websites Chosen emails		Pre-selected unedited digital photos (or portrait photos taken previously) saved on computers and accessible to children. Laptops/desktops/tablets with access to chosen comic strip software.	Quiz generator programme OR <u>paper-based</u>
Knowledge		Type their name on a piece of work they have created; Open a web browser; Recall some of the SMART rules for Internet safety; Know who to tell if someone online asks for personal information; Understand why email is a good way to communicate.	Know what 'digital footprint' means; Know that people can use the information they put online; Know that a digital footprint contains information about a person; Identify keywords that will give good search results; Use a website to search for information; Begin to identify possible dangers online; Identify websites suitable for their age; Know when to ask an adult for advice about accessing a website;	Recognise cyberbullying; Identify a safe person to tell if they encounter cyberbullying; Know that cyberbullying can happen via a range of devices; Identify adverts online; Identify a targeted advert; Explore how companies use websites to promote products; Create a strong password; Explain why a strong password is important; Explain what privacy settings are;	Define cyberbullying; Know how to respond to a hurtful message or comment online; Access a trusted search engine; Understand that different search terms give different results; Know what plagiarism is; Identify which information to keep private online; Explain what digital citizenship is; Tell someone else at least one way to stay safe online.	Identify a spam email; Explain what to do with spam email; Understand why they should cite a source; Explain the rules for creating a strong password; Create a strong password using a set of rules; Know that not everything they see online is true; Explain how to stay safe online; Identify unsafe online behaviour.	Say what bullying and cyberbullying are; Say how people should deal with cyberbullying; Understand why I should ask an adult if I am unsure; Identify warning signs that a website might not be secure; Identify personal information; Explain what to do if I am asked or told something online which makes me uncomfortable;

			Know what to do if a website makes them uncomfortable; Talk about what people might want to know about a website; Give their opinion about a website; Say what they like and dislike about a website; Begin to consider who a website could be aimed at; Identify unkind online behaviour; Know what to do if they think someone is being unkind to them online; Know how to safely search for information online; Choose appropriate websites for their age.	Discuss email as a form of communication; Identify an email that they should not open; Write an email with an address and subject; Know how to safely send an email; Know how to safely receive an email; Identify online communities they are a part of; Identify different forms of online communication; Discuss the positive and negative aspects of online communities; Discuss the differences between communication in real life and online; Discuss what they have learnt about online safety; Communicate their ideas with a group clearly and listen to others' contributions; Use what they know about online safety to plan a			Explain some of the dangers of revealing personal information to an online friend; Choose an appropriate action online to stay safe; Identify a situation I should be careful in online; Understand how a stereotype can be harmful.

				party using online methods.			
Skills		Create, name and date my digital creative work. Safely search for images online. Understand how to communicate safely online. Understand what personal information I need to keep safe. Explore how to use email to safely communicate. Apply my online safety knowledge to help others make good choices online.	Understand that the information I put online leaves a digital footprint. Use keywords in an online search to find out about a topic. Recognise whether a website is appropriate for children. Rate and review informative websites. Identify kind and unkind behaviour online. Apply our knowledge of safe and sensible online activities to different situations.	Know what cyberbullying is and how to address it. Understand how websites use advertisements to promote products. Create strong passwords and understand privacy settings. Safely send and receive emails. Explore different ways children can communicate online. Use knowledge about online safety to plan a party online.	Identify how a message can hurt someone's feelings. Say how I should respond to a hurtful message online. Use a search engine accurately. Understand and explain the term 'plagiarism' and how to avoid it. Create a safe online profile. Explain how to be a responsible digital citizen. Create an online safety superhero character.	Identify spam emails and what to do with them. Write citations for the websites I use for research. Create strong passwords. Recognise when, why and how photographs we see online may have been edited. Apply online safety rules to real-life scenarios.	Find similarities and differences between bullying and cyberbullying. Identify good strategies to deal with cyberbullying. Identify secure websites by identifying privacy seals of approval. Understand the benefits and pitfalls of online relationships. Identify information that I should never share. Identify how the media play a powerful role in shaping ideas about girls and boys. Apply my online safety knowledge to my online activities. Use my knowledge of online safety to create a multiple choice quiz.

NC Objective		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 technology safely and respectfully	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. Be discerning in evaluating digital content.

Impact (End Points)						
~~EYFS~~	Key Stage 1		Key Stage 2			
~~Year R~~	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
~~Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. Children can use the keyboard and mouse. Children can access an app.~~	Children should be able to confidently log in and use a range of technology/programs e.g. Beebots, computer, camera. They use different technology/programs appropriately to type, locate, identify and create.	Children create simple pictures increasing my mouse skills They know how to stay safe when working online. Children can understand how code moves a sprite and how to write an algorithm for movement.	Children demonstrate a safe use of the Internet, awareness of privacy. Competent use of Excel spreadsheets, word documents and editing. Accomplished at collecting, analysing, evaluating, presenting data and information. Understanding of Binary.	Children should be confident in using the internet safely (search engines) and who to report concerns to. Understand the meaning of algorithms and how they work, detecting and correcting simple errors.	Children will know how to use a variety of different programs to achieve a desired outcome. They will be able to identify and debug algorithms in order to create a game using Kodu. Children will be able to use spreadsheets to collect and calculate data and present it in a variety of ways. They know how to stay safe online and how to behave responsibly online.	Children are able to use logical reasoning to explain how simple algorithms work in different programs and be able to apply their knowledge and understanding. Children should be able to use search technologies effectively and independently. Children should be able to understand computer networks, including the internet and be able to use them safely, respectfully and responsibly.