Ampney Crucis C of E 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.							
Autumn	**Maple (Reception)**	**Willow (Year 1 and 2)**		**Chestnut (Year 3 & 4)**		**Oak (Year 5 & 6)**	
	1Year Cycle	**Cycle A**	**Cycle B**	**Cycle A**	**Cycle B**	**Cycle A**	**Cycle B**
Knowledge	Internet Safety Mouse control Keyboard skills using laptops Using technology to solve a problem.	Microsoft Word Document /Data Handling Online Safety Microsoft Word Use technology purposefully to create, organise, store, manipulate and retrieve digital content Online safety Mathletics Chromebooks Understand what algorithms are, how they are implemented as programs on digital devices.	Online Safety Introduction to Coding and programming software. Paint – creating images using the tools available on this simple paint tool Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs.	Internet Safety Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. How to be safe online Search engines PowerPoint Word	Children develop their skills of formatting using keyboard commands, organising their work to demonstrate effect. In LKS2, they will have the opportunity to express themselves more through digital technology.	Scratch Designing, writing and debugging programs that accomplish specific goals. Including controlling or simulating physical systems in a sprite.	Scratch How to write and create algorithms to create a computer world

Skills	Turning computer on/off Keyboard Skills Solving Problems Using technology creatively	Logging on/off Keyboard skills Mouse skills Locating letters and numbers Collecting data Transfer data onto a pictogram Word - Open a new document and add text. Manipulate the size, colour and text type. Edit a document and save. Colour Magic Drawing an image using different pens, brushes, colours, lines Adding text and moving it around on the screen. Saving and printing.		Learning how to set up a personal folder. ; 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	create different effects with different technological tools, demonstrating control; use appropriate keyboard commands to amend text on a device; use applications and devices in order to communicate ideas, work, and messages; save, retrieve and evaluate work, making amendments; insert a picture/text/graph/hyperlink from the internet or a personal file; use key vocabulary to demonstrate knowledge	Programming, debugging, creating animations, controlling time/ objects, sequencing events in a story, adding sound and adding an interactive user.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Design a simulation world Control a character to move Debug and improve issues within the created world Develop a game

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Spring	**Maple (Reception)**	**Willow (Year 1 and 2)**		**Chestnut (Year 3 & 4)**		**Oak (Year 5 & 6)**	
	1 Year Cycle	**Cycle A**	**Cycle B**	**Cycle A**	**Cycle B**	**Cycle A**	**Cycle B**
Knowledge	Microsoft Word/ Internet Safety Keyboard skills Typing Editing	Using search engines to research Keeping safe online Online research Children begin to understand the particular purposes technology can be used for and that by adding text and images you can communicate with technology. Children develop their skills in typing, selecting tools and organising information.	Understand what algorithms are, how they are implemented as programs on digital devices. Turtle graphics on the floor & screen	Data Handling How to present data in an computer program Scratch Understand that commands are used to make something happen. Understand that computers require code. Simulations of real life events Scratch	PowerPoint word select, use and combine a variety of software (including internet services)	Microsoft Excel Using formulae to complete calculations. Using spreadsheets to solve problems.	Children begin to look at new software, creating 3D models and learning how to orbit, zoom and develop their editing skills further. They become more confident in inserting links, images and formatting text to create effect.

Skills	Completes a simple program on a computer. Uses ICT hardware to interact with age appropriate computer software.	Learning how to get results on a search engine PowerPoint Can safely search the internet and find information and pictures on a topic. add text strings, text boxes and show and hide objects and images, manipulating the features; use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape; save,	use applications and devices in order to communicate ideas, work messages and demonstrate control. retrieve and organise work	Collecting and presenting data Use the scratch program to write simple instructions and find out what happens. Look at how to debug algorithms to find where script is incorrect. Children consider the advantages of modelling using simulations and critically consider how realistic the simulations are Design, write and debug programs that accomplish specific goals, including controlling or	Formatting slides Inserting texts and pictures Adding transitions. 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	Using SUM formulae. Formatting cells, ordering/ editing/ presenting data. Using prior knowledge to create a functional spreadsheet for a specific purpose.	Use the skills already developed to create content using unfamiliar technology; Select, use and combine the appropriate technology tools to create effect, review and improve their own work and support others to improve their work; save, retrieve and evaluate their work, making amendments; insert a picture/text/graph/hyperlink from the internet or personal file; use key vocabulary to demonstrate knowledge and

				simulating physical systems; solve problems by decomposing them into smaller parts			understanding in this strand: window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide.

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Summer	**Maple (Reception)**	**Willow (Year 1 and 2)**		**Chestnut (Year 3 & 4)**		**Oak (Year 5 & 6)**	
	1 Year Cycle	**Cycle A**	**Cycle B**	**Cycle A**	**Cycle B**	**Cycle A**	**Cycle B**
Knowledge	Beebots/ Internet Safety Programming	Creating a picture and adding text Beebots, Coding & Creating a picture and adding text on Busy Things program How to use the internet to search a topic safely?	Digital Creativity Animated scene using an avatar	Discuss what actions could be taken if they are uncomfortable or upset online e.g. Report Abuse button. Talk about the school network & the different resources they can access, including the Internet. Frame questions & identify key words to search for information on the Internet.	Scratch Bee Bots Understand that commands are used to make something happen. Understand that computers require code.	Power point Presenting information in an appropriate and appealing way for an audience. Publisher To create animated film	Children begin to look more into multimedia broadcasting, learning new skills including recording jingles, podcasts and narration. They become more confident in post-production with editing, trimming and refining their work based on plans they have made.

Skills	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	Keyboard and typing skills Mouse Skills Locating letters/numbers Using text tool on busy things Use add picture too Directional language Using/directing beebots Instructions using directional language	Use applications and devices in order to communicate ideas, work messages and demonstrate control.	Talk about what games they enjoying playing and what good choices are. Consider reliability of information & ways it may influence you.	Use the scratch program to write simple instructions and find out what happens. Look at how to debug algorithms to find where script is incorrect.	PowerPoint Researching information, copying/ pasting, inserting pictures, animations, transitions and formatting slides/texts/ pictures. considered. Creating and renaming new folders. Saving pictures from the internet. Considering and creating an effective design. Independently trouble shooting any problems that may arise. Presenting and discussing your own project. Being able to give constructive and	Collect audio from a variety of resources including own recordings and internet clips; Use a digital device to record sounds and present audio; Trim, arrange and edit audio levels to improve quality; Publish their animation and use a movie editing package to edit/refine and add titles; use key vocabulary to demonstrate knowledge and understanding in this strand: audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content,

						effective evaluations to peers that is helpful and useful	downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload.

Impact (end points)			
Maple (Reception)	Willow (Year 1 & 2)	Chestnut (Year 3 &4)	Oak (Year 5 &6)
Children to be able to: 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: 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 and where to go for help and support when they have concerns about content or contact online or other online technologies. Children can understand how code moves a sprite and how to write an algorithm for movement.	Children should be able to: 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	Children should be able to: 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 scratch. 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.