

Computing Scheme of Work							Autumn Term	Year 5
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Key Learning	Use technology purposefully to organise digital content.	Can create digital content to achieve a given goal. Communicate with a wider audience.		That problems can be decomposed into smaller chunks enabling solution to be found. Use logical reasoning to explain own algorithms and how they work.	Revisit the term 'Debugging' - trying to identify errors and correcting them independently. Use logical reasoning to predict behaviour.	What is an algorithm? Understand that algorithms are precise and unambiguous instructions.	Know what a variable is and how it can be used. Understand 'If / else' statements and loops.	Can evaluate work for a given audience. Recognise that different solutions exists for the same problem.
Main Lessons	Basics Be able to create folders within own area to organise own work. Check pupils name work in a manner that makes it easy to find. Look at how to search for a file. Revisit CloudU, how to log in, save work so that it can be viewed at home.	Wiki Set up a class Wiki based on topic. This lesson could be used to explore Wikis, what they are and who uses them. Decide on a topic. In pairs jot down initial ideas and as a class add some to Wiki.	Online Safety: Lesson 1, SWGFL SofW.	Scratch: Introduce the concept of a Pac Man style game. Show demo. Decompose the game into smaller chunks, eg. Create background and characters: add code to allow user to control the Pac Man. What happens when it hits a wall? How to create moving enemy? Pupils create characters and background.	Scratch: Pupils add code to make Pac Man move. Add code to stop Pac Man from going through walls. Demo how to add 2nd costume to a sprite and to switch costumes.	Scratch: Pupils discuss in pairs how to program enemy character to move independently around the track. Add code. How to end game when Pac Man caught. How to add sounds.	Scratch: Introduce items for the Pac Man to eat. Discuss and code. Introduce variables to record number of items eaten.	Scratch: Provide pupils with time to develop their games and evaluate them. Take a screen shot and paste into word with a write up of their game, how to play, rules etc. Format text to aid the reader.
Software	Cloudu or J2e			Scratch	Scratch	Scratch	Scratch	Scratch / Word
Ongoing activities			In pairs pupils could add / amend Wiki entries.	In pairs pupils could add / amend Wiki entries.	In pairs pupils could add / amend Wiki entries.	In pairs pupils could add / amend Wiki entries.	In pairs pupils could add / amend Wiki entries.	In pairs pupils could add / amend Wiki entries.
Online Safety			Strong Passwords					

Computing Scheme of Work								Spring Term	Year 5
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	
Key Learning		<ul style="list-style-type: none"> Can talk about their work and make improvements based on feedback. Can comment on the success of their work in relation to the intended audience. Recognises the audience when designing and creating digital content. 		<ul style="list-style-type: none"> Recognise that computers have no intelligence and can do nothing without a program. Know that computers collect data from various inputs including sensors. Know the difference between hardware and software.. Know the difference between an operating system and office products. Know the main parts of the computer. 	<ul style="list-style-type: none"> Know the difference between web browsers and search engines. Understand the difference between the www and the internet. Understand how data is transferred across a 	<ul style="list-style-type: none"> To use a range of software to create, store and edit digital content. Can recognise different forms of data, number, text, pictures. Understand that different programs work with different types of data. Able to sort and order the data and answer questions based on it. Recognises that inaccurate data will lead to wrong answers. 			
Main Lessons	Online Safety: Lesson 2, SWGFL SofW.	Publisher Style Create a leaflet. Be aware of audience before starting. Ensure pupils can import pictures, control fonts, and the layout.	Computer networks: What is a computer? Be able to identify the various parts, screen, computer, keyboard, etc. Be able to identify inputs and outputs.	Computer networks: How to send messages across a network. Pupils to devise a method of sending information across the room using only a bulb, battery and wires. (Morse code)	Data Handling: Learn to add data to a spread sheet and format it correctly. Pupils to learn how to add columns, find the average etc.	Data Handling: Use previous spread sheet to create a graph. Use data and graph to answers questions set. Copy and paste graph and data into Word style document to write up findings.	Online Safety: Lesson 3, SWGFL SofW.		
Software		Publisher / J2E				Excel / J2E	Excel / J2E / Word		

Computing Scheme of Work

**Summer
Term**

Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Key Learning		<ul style="list-style-type: none"> Understands that algorithms are a precise set of instructions and can create and edit own code to achieve a given purpose. Pupils can talk confidently about inputs and outputs. Can use 'if', 'then', 'else' and 'loops' within their programs. Can detect and correct errors in code. Understands that the sequence of instructions is important. Can declare and assign variables. Can use arithmetic and relational operators (+ - = <> OR AND) 				<ul style="list-style-type: none"> Can use a range of software to create, store and edit digital content with increasing independence and awareness of audience. Can talk about their work and make improvements based on feedback. Can comment on the success of their work in relation to the intended audience. Can talk about how different software is used for different purposes. Recognises the audience when 			
Main Lessons	<p>Online Safety:</p> <p>Lesson 4, SWGFL SofW.</p> <p>Use Word to write bibliographical citations for online sources.</p>	<p>Scratch</p> <p>Show pupils the Times Table Game. Discuss the code involved. In Pairs decompose using sheet to guide.</p> <p>Pupils to create maths background and import character. Learn how to ask questions and receive answers.</p>	<p>Scratch</p> <p>Revisit variables, used to store data. How to use to store game players answers and questions.</p> <p>Look at function (broadcasts in scratch) to break code into smaller blocks.</p>	<p>Scratch</p> <p>How to create random numbers, use = < > etc. How to present a question to the user and check their answers. Use a variable to record correct answers.</p>	<p>Scratch</p> <p>Provide pupils with time to develop their games and evaluate them.</p> <p>Take a screen shot and paste into word with a write up of their game, how to play, rules etc. Format text to aid the reader.</p> <p>Demo a game with code in a different order. Impact on game?</p>	<p>Presentation:</p> <p>Create a trips week presentation for parents using PhotoStory</p> <p>Include pictures, titles and text.</p> <p>Able to format text, check spellings.</p> <p>Emphasis audience.</p> <p>keyboard short cuts eg ctrl+c (copy), ctrl+v (paste)</p> <p>Acknowledge sources used. Understand copyright.</p>		<p>Online Safety:</p> <p>Lesson 5, SWGFL SofW.</p>	
Software	Word / J2E	Scratch / Word				Photostory			
Ongoing activities						<p>Google maps: Use measure tool to get distances.</p> <p>Google maps: Use Street View to see sites.</p>			