COTTINGLEY VILLAGE PRIMARY SCHOOL *Together we'll succeed*

Progression of knowledge and skills in Computer Science – September 2022

Computing – Computer Science / Coding									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To repeat actions that have an effect.	To explore how things work.	Talk about the steps involved in a process or task.		Understand that an algorithm is a series of instructions	Understand that real and virtual devices can be controlled by sequences of commands.	Collaborate with others to create, refine and debug a series of commands for a specific purpose.	Understand and explore different game genres and what makes a good game.	Convert lines of code into everyday language and vice versa.	Independently design, write and debug a program to solve a problem.
		Begin to summarise as they remember tasks, recounting what was important.		Understand that digital devices work using programs.	Predict the outcome of an algorithm using logical reasoning	independently create, refine and debug a series of commands for a specific purpose.	Understand that games, apps and web content are made of code.	Understand and use variables. Understand and use variables.	Include more complex selection linked to variables to write programs.
		Break a task down into smaller tasks		Enter single commands into an electronic device to make something happen.	Debug an algorithm	Understand and identify simple input and outputs	Decompose a program down into smaller elements first and identifying the code used for different purposes.	Use selection and variables in programming to create a game aimed at an audience.	Create a program where an event in a physical system is triggered by a sensor.
		Sequencing a set of the instructions		Control a device through a series of simple commands to create a simple algorithm.	Control devices through a series of clear and accurate algorithms to achieve a predefined outcome.	Create simple programs combining inputs and outputs.	Design, write, test and debug a simple game.	Become familiar with inputs and outputs and create programs using them to control or simulate physical systems.	Understand that the internet is made up of networks of computers around the world that can provide multiple services
		Explore practical situations and begin to notice patterns, observing and exploring similarities and differences		Plan and test a simple algorithm.	Plan, Write and test simple programs.	Use repetition in programs to write code using the least number of lines and improving efficiency.	Understand and use selection in their coding	Understand what networks (including the internet) are and how they are used to transfer information.	
				. Check their algorithm to see if it works as planned.	Evaluate whether they've missed aspects, debug their work and and share their understanding with others.				