






Computer Science Knowledge Organiser – Year 5

Y5	Prior Knowledge	Programming – Selection / Variables	Computational Thinking
Key knowledge and skills	In Year 4 you learnt: <ul style="list-style-type: none"> How to use repetition and selection in programs. How to work with a variety of inputs and outputs. How to use logical reasoning to systematically detect and correct errors in programs. The difference between the internet and WWW. How web pages are viewed across the internet. 	<ul style="list-style-type: none"> I know how to create programs by decomposing them into smaller parts. I know how to use a variety of selection commands in programs. I know how to use conditions in repetition commands. I know how to work with variables. I know how to evaluate my work and identify errors. I know how to code using commands in sequence. (Swift) I know how to define my own functions and call a function I've written. (Swift) 	<ul style="list-style-type: none"> I know how to solve problems by decomposing them into smaller parts. I know how to use selection in algorithms. I know how to use logical reasoning to explain how a variety of algorithms work. I know how to evaluate the effectiveness of algorithms.
		Computer Networks – Search Engines	
		<ul style="list-style-type: none"> I know how to use search technologies effectively. I understand that web spiders index the web for search engines. I appreciate how pages are ranked in a search engine. 	

Computational Thinking		Key Vocabulary		Apps/Programs
 Selection	Selection is when programs that are interactive, responding to inputs and behaving differently each time they run. With burglar alarms, if motion is detected then a siren sounds, else it remains on standby.	Evaluation	Making judgements based on different factors such as design criteria and user needs.	 
 Variable	A variable is a simple way of storing one piece of information somewhere in the computer's memory whilst a program is running. A variable can be numerical, textual or perhaps an indicator of true/false.	Condition	A statement that can be either True or False	
		Variable	A named piece of data (often a number or text) stored in a computer's memory, which can be accessed and changed by a computer program.	
		camelCase (Swift coding)	A way to separate the words in a phrase by making the first letter of each word capitalized and not using spaces (turnLeft).	
		Call (Swift coding)	To call a function in code is to instruct that function run, performing the actions defined inside it.	
		Search engine	A program that searches an index of the WWW for keywords and displays the results in order	
 Evaluate	Evaluation is making judgements, where possible in an objective and systematic way. Judging the quality and effectiveness of products, solutions.	Web crawler	Also known as a web spider, is a program that browses the WWW in a methodical, automated manner.	
		Ranking algorithm	An algorithm used by search engines to organise the results of a search into ranked order of importance and relevance.	