COMPUTING SKILLS PROGRESSION

	YEAR 1/2	YEAR 3/4	YEAR 5/6
COMPUTER SCIENCE: PROGRAMMING AND EXPLORING	Understand what **algorithms** are *(a set of rules for performing a task)* Create simple **programs** *(a set of rules that can be understood by a computer)* Understand that algorithms are implemented as programs on digital devices *(Programmers turn algorithm into code)* Understand that programs work by following precise instructions **Debug** simple programs *(Find the problem and fix it!)* Use logical reasoning to predict the behaviour of simple programs *(Explain what will happen and why)*	Write programs that accomplish specific goals Debug simple programs Use logical reasoning to predict the behaviour of simple programs L2 Use **sequence** in programs *(step by step nature of programs)* Use **repetition** in programs *(a 'repeat… until' loop where the computer runs a bit of the program a certain number of times))* Work with different forms of **input** *(anything that accepts a command e.g. microwave control, mobile phone, car stereo etc.)* Work with different forms of **output** *(What the 'computer' produces – remember, a computer is <u>anything</u> that accepts input, processes it and produces an output)* Appreciate how search results are selected	Solve problems by splitting them into smaller parts L5 Design and create programs Debug programs Use **selection** in programs *(instructions like 'if…then…otherwise')* Work with **variables** *(variables are used to keep track of things that can change when a program is running e.g. keeping track of a players score in a quiz)* Use logical reasoning to detect and correct errors in programs and algorithms Understand computer **networks** including the internet *(computers connected together)* Appreciate how search results are ranked

CREATIVE TECHNOLOGY: COMMUNICATION COLLABORATION	Use technology purposefully to **create** digital content *(e.g. word-processing, creating pictures, working with digital photos and video, animations, writing programs etc.)* Use technology purposefully to **organise** digital content *(e.g. organising files in a folder or directory, tagging photos and online posts)* Use technology purposefully to **manipulate** digital content *(Using programs like word-processors, presentation software, image/audio/video editing packages…)* Use technology purposefully to **store** digital content *(Know how and where to save a file)* Use technology purposefully to **retrieve** digital content *(Finding what you want from wherever you saved it!)*	Use search technologies effectively *(Use keywords & phrases, skim and scan results)* Use a variety of software to accomplish goals Collect information and data *(e.g. text, images, audio or video)* Design and create content Present information	Select and combine a range of software to accomplish goals Select, use and combine software on a range of **digital devices** including internet services *(both fixed and mobile technologies)* Analyse information Evaluate information Present information and data Design and create **systems** *(A system is something that has separate interacting parts that form a whole)*

DIGITAL LITERACY: E-SAFETY, RESEARCH AND ORGANISING IDEAS			
	Use technology safely Keep personal information private Recognise common uses of information technology beyond school Use technology respectfully Know where to go for help and support when they have concerns about content *(e.g. parent or teacher)* http://www.thinkuknow.co.uk/5_7/ http://www.saferinternet.org.uk/	Use technology responsibly *(How their actions impact others & terms and conditions for web services e.g. 13+ restriction on Facebook etc.)* Identify a range of ways to report concerns about content *(CEO, Police, Childline)* Recognise acceptable/unacceptable behaviour Recognise the opportunities that computer networks offer for communication L4 http://www.thinkuknow.co.uk/5_7/ http://www.saferinternet.org.uk/	Recognise acceptable/unacceptable behaviour *(e.g. how their actions impact others & legal and ethical responsibilities)* Identify a range of ways to report concerns about content *(CEO, Police, Childline)* Understand the opportunities computer networks offer for collaboration Evaluate digital content effectively http://www.thinkuknow.co.uk/8_10/ http://www.saferinternet.org.uk