Stanton St Quintin Primary School and Nursery
Skills and Knowledge Progression
Computing

	EYFS Early Learning Goals	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Coding/ Programming **CODE**	I know some directional phrases. I can give some simple instructions. I know that computers follow instructions. I can experiment using floor turtle/bee-bot	I can give a sequence of instructions to a floor turtle. I can create a Blue-Bot program using a sequence of instructions before running it using the Go button.	I can create more complex programs on screen, correcting any errors	I can use sequence in programs. I can write a program to produce output on screen. I can create a program that produces output on screen, such as moving sprites or displayed text, e.g. a simple animation program.	I can use sequence and repetition in programs. I can write a program that accepts keyboard input and produces on-screen output.	I can use sequence, selection and repetition in programs. I can write a program that accepts keyboard and mouse input and produces output on screen and through speakers.	I can use sequence, selection, repetition and variables in programs. I can write a program that accepts inputs other than keyboard and mouse and produces outputs other than screen or speakers.
Computational Thinking/ Problem Solving **CODE**	I can suggest solutions to solving a problem related to a set of simple instructions and outcomes	I understand algorithms as sequences of instructions in everyday contexts. I take real-world problems and then plan a sequence of steps to solve these. I understand that simple, real-world problems, such as making a pizza or a smoothie, can be solved by following a sequence of steps in order. I can program floor turtles using sequences of instructions to implement an algorithm. I can create a Blue-Bot (or similar) program using a number of steps in order before pressing the Go button	I understand algorithms as sequences of instructions or sets of rules in everyday contexts. I recognise that common sequences of instructions or sets of rules can be thought of as algorithms. Examples could include recipes, but might also be procedures or rules in class, spelling rules, simple arithmetic operations or number patterns.	*I* can design and write a program using a block language, without user interaction. I can use sequence in programs. I can write a program to produce output on screen. I can create a program that produces output on screen, such as moving sprites or displayed text, e.g. a simple animation program.	I can design and write a program using a block language to a given brief, including simple interaction. I can develop their own simulation of a simple physical system on screen. I can work with others to plan a project.	I can design, write and debug a program using a block language based on their own ideas. I can experiment with computer control applications.	I can design, write and debug a program using a second programming language based on my own ideas. I can test and debug my code, explain what bugs I found and how I fixed these- The program need not be complex
Logical Thinking **CODE**	I can explain the intended outcome of a set of instructions is.	I can give explanations for what I think a program will do.	I can give logical explanations for what I think a program will do	I can use logical reasoning to detect errors in programs.	I can use logical reasoning to detect and correct errors in programs.	I can use logical reasoning to detect errors in algorithms.	*I can* use logical reasoning to detect and correct errors in algorithms (and programs).
Wider Understanding/ Networks **CONNECT**	I can interact with age appropriate computer software.	I can interact with age appropriate computer software.	I understand that computer networks transmit information in a digital (binary) format.	I understand that email and videoconferencing are made possible through the Internet	I understand that the Internet transmits information as packets of data. I understand how the Internet makes the web possible I can understand how data routing works on the Internet.	I can understand how data routing works on the Internet. I can understand how web pages are created and transmitted.	I can understand how mobile phone or other networks operate. I can understand how domain names are converted into IP addresses on the Internet.

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E-Safety **CONNECT**	I know who to tell if something worries me I know some examples of information that I can share.	I can describe how keep myself safe while using digital technology. I understand that some information should be kept private.	I can understand that I should not share personal information online. I understand what to do if I have concerns about content or contact online.	I know who to talk to about inappropriate behaviour in school. I can make choices about which web page/site I consider most useful.	I know who to talk to about concerns and inappropriate behaviour at home or in school. I can decide whether digital content is relevant for a given purpose or question.	*I know* to report concerns and inappropriate behaviour in a range of contexts. I can decide whether digital content is reliable and unbiased. I can work collaboratively with classmates on a class website or blog.	I can show that I can think through the consequences of my actions when using digital technology. I can identify principles underpinning acceptable use of digital technologies. I know a range of ways to report concerns and inappropriate behaviour in a variety of contexts. I can form an opinion about the effectiveness of digital content. I can use online tools to plan and carry out a collaborative project.
Using IT Beyond School	I recognise that a range of technology is used in places such as homes and schools I can select and use technology for particular purposes.	I can show an awareness of how IT is used for communication beyond school.	I can show an awareness of how IT is used for communication beyond school.	I can show an awareness of how and why IT is used for communication beyond school.			
Creating Content **COMMUNICATE**	I know that digital content can be represented in many forms.	I can use digital technology to store and retrieve content. I can create original content using digital technology. I can create my own original digital content using a range of technologies.	I can create and edit original content for a given purpose using digital technology.	I can design and create content on a computer.	I can design and create content on a computer in response to a given goal.	I can design and create programs on a computer in response to a given goal and paying attention to the needs of a known audience.	I can design and create systems in response to a given goal. I can plan, design and implement a system with multiple, interrelated components with a given goal in mind.
Searching Content **CONNECT**		I can suggest some words that I might use to search for something online I know what websites are and how I might access them	I can suggest some words that I might use to search for something online I know what websites are and how I might access them	I can search for information within a single site. I understand that search engines rank pages according to relevance.	I can use a standard search engine to find information. I can understand that search engines rank pages according to relevance.	I can use filters to make more effective use of a standard search engine.	I can make use of a range of search engines appropriate to finding information that is required. I appreciate that search engines rank pages based on the number and quality of inbound links.