



Computing Year 5

	Term 1	Term 2		Term 3
Unit of work	Introducing Selection and the Micro:bit	What is the internet	Variables in Scratch	World Wide Web and Search Engines
Link to Programme of study	Computer Science	Computers, networks and the WWW	Computer Science	Computers, networks and the WWW
Composite knowledge	<p>Recognise and use sequence, repetition and Selection in a range of programs</p> <p>Work with various forms of input and output</p> <p>Design, write and test programs which achieve specific outcomes</p> <p>Use logical reasoning to explain what will happen when code is run</p>	<p>understand that the internet is the world's biggest collection of Networks</p> <p>Recognise how the connections of the internet provides multiple services, such as the world wide web and streaming video</p> <p>Develop an understanding of how information is shared between devices connected to the internet</p>	<p>Recognise and use variables in a range of programs</p> <p>Design, write and test programs which achieve specific outcomes</p> <p>Use logical reasoning to explain what will happen when code is run</p>	<p>Understand that the World Wide Web is provided by the internet</p> <p>Recognise that the World Wide Web is lots of shared information that can be created by anybody</p> <p>Use search technologies effectively</p> <p>Appreciate how results are selected and ranked</p> <p>Be discerning in evaluating digital content.</p>
Intentional knowledge they need to understand (Component knowledge)	<p>Write programs in Scratch using the code blocks and run them on the Micro:bit</p> <p>Recognise how selection is used in some programs</p> <p>Read code to identify what will happen when it is run</p> <p>Use selection to create if statements which include conditions</p> <p>Use forever loops to make the program continuously check if a condition is met</p> <p>Use programming knowledge to develop programs further by including their own ideas</p>	<p>That the internet is the largest collection of networks joined together</p> <p>That you can connect to the internet either using network cables or wirelessly using Wi-Fi</p> <p>That information is shared through these connections which are often hidden away underground, under the sea</p> <p>Servers and data Centre's store information which is then shared between devices across the internet</p>	<p>Recognise a variable as a space in a program to store data</p> <p>Edit and use variables in a variety of different ways</p> <p>Recognise different ways variables can be used to affect their programs</p> <p>Be able to read code and predict what it will achieve</p> <p>Combine programming concepts to achieve specific outcomes</p>	<p>That the information on the World Wide Web is passed though the connections of the internet</p> <p>That anybody can generate and share content on the world wide web</p> <p>Recognise that search engines are one way to find information and have strategies for using them effectively</p> <p>Recognise that search engines rank search results</p> <p>Develop strategies for evaluating online content</p>

National Curriculum KS2 (skills)	<p>Key stage 2 Pupils should be taught to:</p> <ul style="list-style-type: none"> design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. use sequence, selection, and repetition in programs; work with variables and various forms of input and output. use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 			
Vocabulary	Order, sequence, forever loop, selection, if, condition, Micro:bit	Network, internet, network cable, wireless, WI-FI, router, server, data centre	Variable, Sequence, repeat, timer, score	World Wide Web, Search Engine, Web Crawler, Ranking, information
Links to prior knowledge	Year 4 – Events, Actions and Sequences Year 3 – Programming Sequences Year 3 – input and output	Year 4: Introducing Networks	Year 5 – Introducing Selection and the Micro:Bit Year 4 – Events, Actions and Sequences Year 3 – Programming Sequences	Year 5: What is the internet Year 4: Introducing Networks
Key knowledge for assessment	<p>Can predict what code will do when run</p> <p>Can write code that is run successfully on the Micro:bit</p> <p>Can write, test and debug code that includes selection</p> <p>Use programming knowledge to create specific outcomes</p>	<p>Recognises that the internet is a global collection of networks</p> <p>Can explain how you connect to the internet</p> <p>Can describe how data is shared across the internet</p> <p>Can suggest different services made possible by the internet e.g. video streaming or the W.W.W.</p>	<p>Can explain what a variable is and where it might be used in programs</p> <p>Can design and create programs which make use of variables e.g. as a score</p> <p>Has used variables to control the flow of a program</p>	<p>Recognises that the W.W.W is lots of shared information</p> <p>Can use search engines to find information</p> <p>Appreciates how search engines find websites and that the results are ranked</p> <p>Recognises that information online is not always true and is developing strategies for evaluating digital content</p>
Cross Curricular Links				All subjects searching for information PSHE – misinformation / disinformation
Oracy & Outdoor Learning Links				

