



Sequenced	SOW topic: topic: 7.1 Introduction to networks	SOW topic: 7.2 HTML	SOW topic: 7.3 Computational thinking	SOW topic: 7.4 Programming with micro:bits
Key Knowledge	<p>To know:</p> <ul style="list-style-type: none"> • What a network is • Features of a strong password • Methods of security • The difference between the internet and www • Common features of an email • What cloud computing is • Advantages and disadvantages of cloud computing • What is cyber security and why is it important • How activities online might be subject to cyber threats • The different ways to keep accounts and devices safe • A range of sources to support and reporting channels, when reporting account or device compromise 	<p>To know:</p> <ul style="list-style-type: none"> • What programming language is used to create webpages • How is formatting applied on webpages to alter the appearance of text • What are hyperlinks and how do internal ones differ to external ones. • How images are included on a website and how to resize them • Why are hex codes used for colour • What internal and external links are • What is embedded content • What is an IDE? • What are the advantages of using an IDE? 	<p>To know:</p> <ul style="list-style-type: none"> • What computational thinking is • How decomposition, abstraction and algorithmic thinking are used in programming • How algorithms can be represented • What is a flowchart • What is pseudocode • What are the key flowchart shapes • The difference between sequence, selection and iteration • What is a linear search • What are the advantages and disadvantages of linear search • What is a binary search • What are the advantages and disadvantages of linear search 	<p>To know:</p> <ul style="list-style-type: none"> • • What is python • What does sequencing mean in programming • What is a variable • How variables can be used to create custom images • What is iteration • Why selection is used • Why programmers Test code • The importance of debugging
Key Skills	<p>To be able to:</p> <ul style="list-style-type: none"> • Send • Reply • Forward • use Cc and Bcc • Demonstrate ways to protect personal information to reduce the risk of being hacked • Demonstrate the skills needed to keep accounts and devices safe • Demonstrate what a safe a secure password looks like • Identify how to recover an account and device • Identify signs of online scams and the measures needed to stay secure online 	<p>To be able to:</p> <ul style="list-style-type: none"> • To create a website using html • Use different tags used for text • Using tags to set a paragraph and line break • Changing font size and font colour on a website using hex codes • Adding links to external websites • Adding a link to a second page • The ability to add an image • Resizing an image on a website • Embedding content on a website 	<p>To be able to:</p> <ul style="list-style-type: none"> • Decompose a problem • Abstract unnecessary information to form a solution for a given scenario • Describe the difference between a flowchart and pseudocode • Use the correct flowchart symbols in a given scenario • Create a flowchart for given scenarios • To recognise when a program shows sequence, selection and iteration • Perform a linear search on a given scenario • Perform a binary search on a given scenario 	<p>To be able to:</p> <ul style="list-style-type: none"> • Displaying text on a micro:bit using the python editor • Creating a program to display a built-in image • Using the sleep mode in python • Using variables to create different patterns • Defining custom images and displaying them on the micro:bit using the range of LED's • Creating a list in python to store multiple items • Use selection (if) and iteration (while) • Find and fix errors
	Tier 3 key vocabulary	Tier 3 key vocabulary	Tier 3 key vocabulary	Tier 3 key vocabulary
Subject specific	Network, user account, computer, password, biometrics, two-factor authentication, e-safety, social media, block, report, email, reply, forward, signature, attachment, profile, privacy, internet, world wide web, cloud storage, collaborate, backup, hacking, malware, phishing, ransomware, smishing, social engineering, viruses, whaling	HTML, Webpages, websites, Tags, Formatting, Browser, Embed, Image, hyperlink, hexadecimal, font, body, heading, title, heading, IDE,	Computational thinking, abstraction, decomposition, algorithms, pseudocode, flow charts, selection, input, output, process, subroutine, linear, binary, index	Variables, iteration, selection, sequencing, random, lists, programming, delay, import, function, arithmetic, random, if, while, python, program, download, testing, debugging

