



Year 7 Curriculum Map
Faculty/Subject: Computing

<u>Unit 7.1</u>	<u>Unit 7.2</u>	<u>Unit 7.3</u>	<u>Unit 7.4</u>	<u>Unit 7.5</u>	<u>Unit 7.6</u>
<u>Topic: Introduction</u>	<u>Topic: Be Safe Online</u>	<u>Topic: Computer Systems</u>	<u>Topic: Computer Networks</u>	<u>Topic: Kodu Programming</u>	<u>Topic: micro:bit Programming</u>
<p>Intent: Introduce Computing to pupils at the Farnborough Academy. This includes:</p> <ul style="list-style-type: none"> • Logging on • Importance of good passwords • Creation of folders • Organisation • E-mail systems • General good computer use and expectations <p>Assessment Focus: Pupils produce a simple screenshot</p>	<p>Intent: Pupils need to regularly update their knowledge of being safe online – the online world moves fast, technology updates etc. So must the curriculum and what pupils learn. We work with CEOP via ThinkUKnow to create a presentation of online safety tips.</p> <p>Assessment Focus:</p>	<p>Intent: Underpinning computer science knowledge is the understanding of what a computer is and the fundamental elements of computer systems. Pupils need to understand, as a baseline of computing knowledge:</p> <ul style="list-style-type: none"> • What is a computer • Input/output/process • Storage and memory • Binary • Hardware/components <p>Assessment Focus: Pupils are assessed with a portfolio of evidence for each of the 5 topics covered, summarised with a workbook</p>	<p>Intent: Another fundamental element of computer science – and especially important in today’ world – is an understanding of how computers allow us to communicate via networking. Pupils need to have an understanding of several key elements:</p> <ul style="list-style-type: none"> • What is a network • What are the benefits and drawbacks • LAN/WAN • The Internet 	<p>Intent: Programming is a key area for computer science. Pupils have learnt CS theory in 7.3/4 and this unit introduces a more practical learning section by introducing visual coding in Kodu. This eases pupils into understanding core concepts such as algorithms, sequences, selection, iteration etc Pupils will:</p> <ul style="list-style-type: none"> • Plan a game • Learn about algorithms 	<p>Intent: As Kodu is a visual programming tool, it is important for pupils to learn how to program using text as they often would in the real world. Using BBC micro:bit devices, which are tangible and engaging mini computers, pupils will continue to learn the key programming concepts but migrating to less visual methods. This unit also allows us to challenge pupils and allow those who have</p>



<p>and explanation to demonstrate how their user area is organised. Also, homework to demonstrate understanding of a good password</p>	<p>Pupils produce a presentation of tips on 4 current online safety issues. Their content and presentation is assessed to check knowledge and their presentation skills. A baseline test also occurs around the time of this unit.</p>	<p>of questions that cover each area that pupils can use their portfolio to help them complete.</p>	<ul style="list-style-type: none">• How searches work• Algorithms for searching and sorting data• The WWW (and how it differs from the Internet)• HTML as an introduction to text-based languages <p>Assessment Focus: Pupils have a workbook in which each lesson there is a key task to be completed. The workbook can then be assessed as a whole, with opportunity to improve any areas where understanding is less clear.</p>	<ul style="list-style-type: none">• Use selection in their game• Use iteration and variables in their game• Learn key skills around error finding – debugging, decomposing and simulation skills <p>Assessment Focus: Pupils use a workbook for the unit to demonstrate their game via screenshots – each showing their understanding of the core programming elements as the lessons progress each week.</p>	<p>a real interest in programming to develop their skills in a more open environment than coding via heavily differentiated tasks.</p> <p>Assessment Focus: Pupils will present their programming progress. They will discuss the code they have used and explain which of the key programming concepts they have used. This also allows pupils to demonstrate their learning from Unit 7.5 in a different context.</p>
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