

Year 9 - Curriculum Guide for Computing 2023-2024

Subject Leader(s):

Tom Featherby – Head of Computing & Business (tom.featherby@jhanson.hants.sch.uk)

Outline Programme of Study

Term	Topic Title	Key Ideas/Concepts	Help from home	Homework & Assessment
Term 1	Cyber Security	<i>This unit takes learners on a journey of discovery of techniques that cybercriminals use to steal data, disrupt systems, and infiltrate networks. The learners will start by considering the value their data holds and what organisations might use it for. They will then learn about social engineering and other common cybercrimes, and finally look at methods to protect against these attacks.</i>	Parents can use the below website to help them: https://www.bbc.co.uk/bitesize/guides/znnny4j/revision/1 https://www.computerscience.gcse.guru/topic/cyber-security	<i>Students home learning will be set on Educake for this topic. They will receive 2 pieces of home learning which is usually set in week 2 & week 4</i>
Term 2	Business Project	<i>During this module of work, we will look at GCSE Business and a series of task which will link to some of the elements in the GCSE Business curriculum.</i>	Parents can use the below website to help them: http://www.bbc.co.uk/bitesize/standard/computing/computer_systems/	<i>Students will complete bespoke home learning tasks that directly link to what is being covered in class. These may be completed on paper or through an online platform called Quizziz.</i>
Term 3	Advanced Python Programming	<i>Pupils will build on the skills they learnt in year 8 and will look at more advanced programming techniques such as lists, functions, reading and writing to files, SQL</i>	Parents can use the following websites to help them: www.python.org www.codecademy.com www.code.org	<i>Students home learning will be set on Educake for this topic. They will receive 2 pieces of home learning which is usually set in week</i>

		<p>databases, procedures etc.</p> <p>This will give students a good base if they decide to take GCSE Computer science as an option in year 10.</p>	<p>www.Khanacademy.org/cs</p> <p>Python is a free piece of software that can be downloaded.</p>	<p>2 & week 4</p> <p>Students will also be asked to practice their coding at home. Suggested Badges: Coding Solutions</p>
Term 4	Advanced Photoshop	<p>This unit helps students embed their photoshop skills in preparation for BTEC Media in year 10. We will use this time to develop specific media documents based on a brief</p>	<p>All students have access to photoshop through the adobe website. Students can log in using their office 365 email address and download the entire adobe suite that can be used offline</p>	<p>Students will complete bespoke home learning tasks that directly link to what is being covered in class. These may be completed on paper or through an online platform called Quizziz</p>
Term 5	Computational thinking	<p>Pupils will complete the below criteria which has been taken from the new Curriculum and will help them in KS4:</p> <ul style="list-style-type: none"> • Understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming. • understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal] • Understand how instructions are stored and executed within a computer system. • understand how data of various types (including text, 	<p>Parents can use the BBC bitesize website to help them understand what binary is.</p> <p>http://www.bbc.co.uk/education/guides/z26rcdm/ revision</p>	<p>Students home learning will be set on Educake for this topic. They will receive 2 pieces of home learning which is usually set in week 2 & week 4</p> <p>Students will also be asked to practice their coding at home. Suggested Badges: Coding Solutions</p>

		<i>sounds and pictures) can be represented and manipulated digitally, in the form of binary digits</i>		
<i>Term 6</i>	<i>Flash Animation</i>	<i>Students will learn the basic skills in order to create an animation using Adobe Flash. They will learn how to use skills such as tweening, layering, convert symbols, create backgrounds, stagger animations etc. They will spend the first 5 lessons learning the skills and the last 3 lessons implementing these skills in an independent assessment.</i>	<i>Parents can go to the Flash website to help them get started</i> https://helpx.adobe.com/flash/using/animation-basics.html <i>There are also fantastic tutorials on YouTube that will explain how to use Flash. Flash is part of the adobe suite, which is quite expensive to buy. However, you can pay a small fee per month to use the adobe suite through the adobe website.</i>	<i>Students will complete bespoke home learning tasks that directly link to what is being covered in class. These may be completed on paper or through an online platform called Quizziz.</i>

Other useful resources

- www.codecademy.com
- www.code.org
- www.Khanacademy.org/cs
- www.lynda.com
- www.w3schools.com/html

If you have any further questions please use the contact details at the top of the guide