



	Year 8	
Term	Unit	Assessment
Autumn	8.1 – Computer Graphics This is an introduction to graphics and graphic file types. The unit explores how bitmap and vector images are represented and stored by the computer. There is also opportunity for pupils to practise skills in design, photo editing and image manipulation using layers to create a movie poster using a suitable graphics package such as Photoshop. The pupils' final posters are put into an assessment portfolio.	Final digital graphic with annotations and evaluation.
	8.2 – Mobile App Development Today, there's an app for every possible need. With this unit students will go through the entire process of creating their own mobile app, using App Lab from code.org. Building on the programming concepts learners used in previous units, they will work in pairs to perform user research, design their app, write the code for it, before finally evaluating and publishing it for the world to use.	Worksheets End of unit online test
Spring	8.3 – AI and Machine Learning This unit gives students a first insight into the fascinating world of Artificial Intelligence and Machine Learning. Pupils begin by considering where AI is used from simple problems such as solving a maze to those more advanced, such as self-driving cars. Students will then look at how machine learning and deep learning are used in image recognition. This is a fast-moving area of development, so the Ethics of AI is considered.	End of unit assessment
	8.4 – Introduction to Python	End of unit assessment

	<p>This is an introduction to Python, a powerful but easy-to-use high-level programming language. Although Python is an object-oriented language, at this level the object-oriented features of the language are barely in evidence and do not need to be discussed. The focus is on getting pupils to understand the process of developing programs, the importance of writing correct syntax, being able to formulate algorithms for simple programs and debugging their programs.</p>	
Summer	<p>8.5 – Understanding Computers</p> <p>This is a theoretical unit covering the basic principles of computer architecture and use of binary. Pupils will revise some of the theory on input and output covered in previous learning and continue to look at the Input-Process-Output sequence and the Fetch-Decode-Execute cycle through practical activities.</p>	End of unit assessment
	<p>8.6 – Developing for the Web</p> <p>In this unit, students will explore the technologies that make up the internet and World Wide Web. Starting with an exploration of the building blocks of the World Wide Web, HTML, and CSS, students will investigate how websites are catalogued and organised for effective retrieval using search engines. By the end of the unit, learners will have a functioning website.</p>	End of unit assessment