Year 8 Curriculum Map
Computing

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Unit of Learning	Media - Vector graphics	Layers of computing systems	Developing for the Web	Representations – from clay to silicon	Mobile app development	Introduction to Python programming
Unit Focus	Design graphics using vector graphic editing software.	Exploring the different layers of computing systems: from programs and the operating system, to the physical components that store and execute these programs, to the fundamental binary building blocks that these components consist of	Explore the technologies that make up the internet and World Wide Web.	Introduction of binary digits as the symbols computers use to perform tasks and focus on the representation of text and numbers.	The process of creating their own mobile app, using App Lab from code.org.	Introduction to text-based programming with Python.
Key Knowledge	Explain that vector graphics are created using paths Outline the different ways of working with multiple objects Identify situations where using vector graphics would be appropriate	Explain that program instructions specify operations that are to be performed on data. Explain the difference between a general-purpose computing system and a purpose-built device. Explain the role of an operating system in	Explain what HyperText Markup Language (HTML) is used for Explain that websites are made up of multiple web pages Explain how individual search engines have their own ranking algorithms	List examples of representations of information Explain what binary digits (bits) are, in terms of familiar symbols such as digits or letters. Describe how characters are represented as sequences of binary digits.	Use a block-based programming language to create a sequence Use variables in an event-driven programming environment Evaluate the success of the programming project	Describe input, process, and output in programs Walk through a sequence and sketch the state and output. Combine iteration and selection. Use Boolean variables as flags

		controlling program execution.				
SMSC	Spread and growth of knowledge	Spread and growth of knowledge	Spread and growth of knowledge	Spread and growth of knowledge	Accessibility of knowledge	Spread and growth of knowledge