## **Y9** Computing



## IT AT YARDLEYS

**INTENT:** Through our ambitious computing curriculum our learners will have access to a broad and balanced range of topics including: digital literacy, computational thinking and modern technology. Yardley's computing curriculum will provide students with an understanding of how computing underpins today's modern lifestyle and has made the world better, faster and more connected. We ensure that the students at Yardleys can develop to become masters and creators in this field, to aid them in their development of our rapidly changing technological world.

## **Y9 IT AT YARDLEYS**

In Year 9 students will further enhance their ability to programme through the use of new programming software. They will spend time developing and understanding and the application of different algorithms.

Year 9			
	Introduction to Python	Media Animations	Representations
	Python Sequences	Data Science	Cyber security
SUBSTANTIVE KNOWLEDGE	Awareness of syntax errors	Media	Images – pixels
	Block based programming language	3D animations	Resolution
	Decomposition	Shape	Colour depth
	Variables	Proportions	Sample rate & size
	Sequencing and selection	Symmetry	Legislation
		Data sets	DOS attack
			Authentication
			Networks
DISCIPLINARY KNOWLEDGE (primary focus in capitals)	Use of Programming language	Use blender - deleting and adding objects; moving,	Calculate size of image
	Use simple arithmetic expressions in	rotating, scaling, and colouring	Image editing techniques
	assignment statements to calculate	Identify patterns and trends	Understand implication of cyber attacks
	values		
	Sequencing and selection		
	Understanding of Integers Role of Iteration		

We aim to provide students with a curriculum that educates the whole child, creating responsible and respectful citizens. Through the development of substantive and disciplinary knowledge students are given the tools that allow them to achieve excellence and be ready for life.