

## Key Stage 3 Curriculum Map 2021 - 2022 Subject: Computer Science

Term	Year 6	Year 7	Year 8	Year 9
<b>1.1</b>	An introduction to iPad & MacBook, software, browser set up & MS 365 (AO1) Data representation - an introduction to file sizes, and common media formats (AO1)	An introduction to iPad & MacBook, software, browser set up & MS 365 (AO1) Data representation - practical application of file sizes and common digital media formats (AO1, AO2)	An introduction to iPad & MacBook, software, browser set up & MS 365 (AO1) Data representation review and extension (AO1, AO2)	An introduction to iPad & MacBook, software, browser set up & MS 365 (AO1) Data representation review and further extension (AO1, AO2)
<b>1.2</b>	An introduction to digital images (AO1, AO2)	Historical background for the development of the modern digital age (AO1)	Computational thinking – a deeper dive (AO1, AO2, AO3)	Boolean logic and application to logic gates (AO1, AO2, AO3)
<b>2.1</b>	An introduction to textural coding - svg objects on a html page (AO1, AO2)	Coding with JavaScript – the application of computational thinking (AO1, AO2)	Coding for the web – HTML5 CSS3 and basic JavaScript (AO1, AO2)	Python coding (AO1, AO2)
<b>2.2</b>	An introduction to basic animation principles (AO1, AO2)	Data representation- Binary and Hexadecimal numbers (AO1, AO2)	An introduction to networks (AO1)	Security and ethics (AO1, AO3)
<b>3.1</b>	Digital citizenship (AO1, AO3) An introduction to Computational thinking- algorithms & flowcharts (AO1, AO2)	Digital audio – data representation application (AO1, AO2, AO3) An introduction to how computers work – hardware (AO1)	The Internet, web and network security (AO1, AO2, AO3)	Emerging trends – AI & Big Data (AO1, AO2, AO3) Computer architecture (AO1)
<b>3.2</b>	Post EOY exam An introduction to 3D design & digital audio production (AO2)	Post EOY exam Programming application via Arduinos (AO1, AO2)	Post EOY exam 3D design & printing (AO1, AO3)	Post EOY exam Control system modelling with Arduinos (AO2, AO3)

## **Assessment Objectives**

**AO1** Demonstrate knowledge and understanding of the principles and concepts of computer science.

**AO2** Apply knowledge and understanding of the principles and concepts of computer science to a given context, including the analysis and design of computational or programming problems.

**AO3** Provide solutions to problems by: evaluating computer systems; making reasoned judgements; presenting conclusions