| YEAR 8 CURRICULUM INFORMATION – BUSINESS AND COMPUTING | | |
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| | Spring 1 | Spring 2 |
| What will students be learning? | Students begin by studying 'Binary and Boolean Logic' in which they will learn how data is represented digitally (binary) building on their prior knowledge of storage and how computers processes information (CPU). | Students will study the topic 'Data Representation' which follows on from their understanding of how data is represented digitally using binary. In this topic students will look specifically at how binary is used to represent text, sound, and images. |
| How will students be assessed? | Students will be assessed on Binary and Boolean logic with a set of multiple-choice and short answer questions (10 marks). | Students will be assessed on Data representation with a set of multiple-choice and short answer questions (10 marks). |
| Literacy – What keywords will be taught? | • Binary<br>• Overflow error<br>• Logic gates<br>• Algebraic expressions | • Pixel<br>• Character sets (ASCII and Unicode)<br>• Sampling<br>• Compression<br>• Decompression |
| What employability skills are being developed? | Problem solving skills, logical reasoning, and numeracy. | Problem solving skills, logical reasoning, and numeracy. |
| Wider Curriculum Links? | Numeracy, specifically calculating using formulae, adding, subtracting and logical reasoning within 'Binary and Boolean Logic'. | Numeracy, specifically calculating using formulae, adding, subtracting and logical reasoning within these topics. |
| What useful websites are there for this topic? | KS3 Computer Science - BBC Bitesize<br>Cisco's Binary Number Game [Binary Blitz]. Penjee's adaptation. | KS3 Computer Science - BBC Bitesize<br>Cisco's Binary Number Game [Binary Blitz]. Penjee's adaptation.<br>How Computers Work - YouTube |
| What wider reading could be done for this topic? | Learn Computer Science - Code.org | Learn Computer Science - Code.org |
| What else can students be doing independently to develop their understanding of this topic? | Go onto Seneca Learning at complete the KS3 Computer Science course Free Homework & Revision for A Level, GCSE, KS3 & KS2 (senecalearning.com) | Go onto Seneca Learning at complete the KS3 Computer Science course.<br>Free Homework & Revision for A Level, GCSE, KS3 & KS2 (senecalearning.com) |