

COMPUTER SCIENCE CURRICULUM MAP

BASSINGBOURN VILLAGE COLLEGE
AUTUMN 2020

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| CURRICULUM DELIVERY | <p>In Years 7 and 8, students follow a scheme of learning that allows them to develop understanding of programming and other aspects relevant to the use of technology in the wider world. Students can then choose to complete the Computer Science GCSE which develops this understanding further. Students will have both practical and theory lessons to ensure that they become confident in a range of skills and help them apply the knowledge they have developed.</p> | | |
| CURRICULUM AIMS | <p>Our aim within the Computer Science department at Bassingbourn Village College is that students will be able to:</p> <ul style="list-style-type: none"> • Develop their understanding of current and emerging technologies and how they work • Look at the use of algorithms in computer programs • Become independent and discerning users of IT • Acquire and apply creative and technical skills, knowledge and understanding of IT in a range of contexts • Develop computer programs to solve problems • Evaluate the effectiveness of computer programs/solutions and the impact of computer technology on society | | |
| CURRICULUM CONTENT | AUTUMN TERM | SPRING TERM | SUMMER TERM |
| Year 7 | Understanding Computer Systems | Algorithms & Programming | Networks |
| Year 8 | Data Representation | Computer Crime & Cyber Security | Algorithms & Programming |
| Year 9 | Computer Hardware Computer Software Computer Memory & Storage | Computational Logic Algorithms Programming Techniques | Data Representation Moral, Legal, Cultural and Environmental Concerns |

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| Year 10 | Boolean Logic Data Storage Designing Creating & Refining Algorithms Programming Fundamentals Data Types | Additional Programming Techniques Practical Programming Skills Data Storage Compression Architecture of the CPU CPU Performance | Embedded Systems Secondary Storage Networks & Topologies Wired and Wireless Networks, Protocols & Layers |
| Year 11 | Wired & Wireless Networks Network Topologies, Protocols & Layers Translators & Facilities of Language Programming project to be worked on at home | Revision Programming project to be worked on at home | Revision |

| ENRICHMENT OPPORTUNITIES | YEAR 7 | Year 8 | Year 9 | Year 10 | Year 11 |
|--------------------------|------------|--------------------------------------|--------------------------------------|---|---|
| | Typing.com | Typing.com Amazon Future Engineer | iDEA Award Amazon Future Engineer | iDEA Award Cyber Discovery Amazon Future Engineer | iDEA Award Cyber Discovery Amazon Future Engineer |

For more information please contact Mr P Bolton on pbolton@bassingbournvc.org