

Computer Science Curriculum

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	<p>School System introduction: Logging on/Email/School testing</p> <p>Unit 1 – Communication and Online Safety Online safety Introduction to the Internet HTML coding</p>	<p>Unit 3 – How computers work Introduction to Hardware</p> <p>Unit 2 - Computational Thinking and Programming Computational Thinking concepts and practice Flowol 4 modelling</p>	<p>Unit 2 - Computational Thinking and Programming MICROBIT–Year 7 Project (Coding) Introducing Microbit coding Designing and producing a foam car and coding a Microbit to measure its speed as part of a regional competition</p>	<p>Unit 1 – Communication and Online Safety Safer Internet Day</p> <p>Unit 3 – How computers work Units of data - Word factsheet Data representation - Binary numbers conversions and basic addition Data representation - Character sets Data representation - Images - Photoshop</p>	<p>Unit 4 – Using ICT and the wider world Planning a project - Collecting data, Researching, Laws, Audience and Reliability using Software - Word, DTP, PPT, Spreadsheets to manage and present their project</p>	<p>Interactive Quiz Project (Revision) Developing skills in Presentation software Building an Interactive Quiz as part of their revision for their end of year exams covering all units</p>
Year 8	<p>School System introduction: Logging on/Email/School testing</p> <p>Unit 1 – Communication and Online Safety Using Email</p> <p>Unit 3 – How computers work Hardware (internal and external) Using Spreadsheet software to manage data</p>	<p>Unit 2 - Computational Thinking and Programming Computational Thinking concepts and practice Flowol 4 modelling Python programming on Microbits</p>	<p>Unit 3 – How computers work Units of data - Word factsheet Data representation Binary numbers Sound Logic Gates inc Truth Table Circuits - PowerPoint on Logic circuits</p>	<p>Unit 1 – Communication and Online Safety Safer Internet Day Online Safety - Laws, Censorship, Privacy Social Media and E-Safety</p> <p>Unit 3 – How computers work Software - Application and System Software - Word Factsheet (Email to teacher)</p>	<p>Unit 4 – Using ICT and the wider world Planning a project - Collecting data, Researching, Laws, Audience and Reliability using Software - Word, DTP, PPT, Spreadsheets to manage and present their project</p>	<p>Interactive Quiz Project (Revision) Developing skills in Presentation software Building an Interactive Quiz as part of their revision for their end of year exams covering all units</p>
Year 9	<p>School System introduction: Logging on/Email/School testing</p> <p>Unit 1 – Communication and Online Safety Using Email</p> <p>Unit 3 – How computers work Introduction to Networks</p>	<p>Unit 2 - Computational Thinking and Programming Computational Thinking concepts and practice Flowol 4 modelling Python programming</p>	<p>Unit 3 – How computers work Data representation - Binary numbers conversions and ASCII and Cryptography Data representation - Logic Gates and Truth Tables - Circuits</p>	<p>Unit 1 – Communication and Online Safety Safer Internet Day</p> <p>Unit 3 – How computers work Data Modelling - Machine Learning and the Wider world (Ethics, Moral, Legal)</p>	<p>Unit 4 – Using ICT and the wider world Planning a project - Collecting data, Researching, Laws, Audience and Reliability using Software - Word, DTP, PPT, Spreadsheets to manage and present their project</p>	<p>Interactive Quiz Project (Revision) Developing skills in Presentation software Building an Interactive Quiz as part of their revision for their end of year exams covering all units</p>
Year 10	Algorithms	Programming	Computer Systems	Data Representation	Networks and Cyber Security	Ethical, legal and environmental impacts of digital technology
Year 11	Relational Databases and SQL	Revision Programming project	Revision (inc. Hands on workshops and guest speakers)	Revision	Revision	
Year 12	<p>Unit 1 Principles of Computer Science – CMC/CMK Unit 2 Fundamentals of Computer Systems – JVL Unit 8 Business Uses of Social Media - IMB</p>	<p>Unit 1 Principles of Computer Science – CMC/CMK Unit 2 Fundamentals of Computer Systems – JVL Unit 8 Business Uses of Social Media - IMB</p>	<p>Unit 1 Principles of Computer Science – Exam Unit 7 IT System Security and Encryption – CMC Unit 14 Games Development - CMK Unit 2 Fundamentals of Computer Systems – JVL Unit 8 Business Uses of Social Media - IMB</p>	<p>Unit 7 IT System Security and Encryption – CMC Unit 14 Games Development - CMK Unit 2 Fundamentals of Computer Systems – JVL Unit 8 Business Uses of Social Media - IMB</p>	<p>Unit 7 IT System Security and Encryption – CMC Unit 14 Games Development - CMK Unit 2 Fundamentals of Computer Systems – JVL Unit 8 Business Uses of Social Media - IMB</p>	<p>Unit 2 Fundamentals of Computer Systems Exam Unit 15 Website Development – CMC Unit 14 Games Development - CMK Unit 8 Business Uses of Social Media - IMB</p>

Year 13	Unit 10 Human-Computer Interaction – CMC Unit 11 Digital Graphics and Animation – CMK Unit 3 Planning and Management of Computing Projects - CMK	Unit 15 Website Development - CMC Unit 3 Planning and Management of Computing Projects - CMK	Unit 3 Planning and Management of Computing Projects – Exam Unit 15 Website Development- CMC	Unit 15 Website Development - CMC Unit 27 3D Modelling – CMK Theory only – Unit 24 Software Development and 5 Building Computer Systems – CMC/CMK	Unit 27 3D Modelling – CMK Theory only – Unit 24 Software Development and 5 Building Computer Systems – CMC/CMK Resit – Exams	
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Texts and exam boards

Year 7- 9	Year 10-11	Year 12-13
Core texts <i>CGP KS3 Computing Complete Revision and Practice</i> (ISBN: 978-1789082791)	Exam board AQA GCSE Computer Science (8525) (exam spec here) Core texts <i>CGP AQA GCSE Computer Science Complete Revision and Practice</i> (ISBN 978-1789086102)	Exam board Pearson/Edexcel BTEC Nationals Computing Core texts <i>BTEC National Computing Student Book</i> (ISBN: 978-1292166926) <i>BTEC National Computing Revision Guide</i> (ISBN: 978-1292150208)

