

Curriculum Map 2021 onwards

| Year view Subject: Computing | | | | |
|-------------------------------------|---|--|------------------------------------|--|
| Year 7 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments * |
| Autumn Term 1 | School computing systems E-safety About me Powerpoint | Using the network, logging on, desktop, housekeeping and file management. Awareness of online safety. Presenting work in Powerpoint. | Presentation. | Cross-curricular computing skills relevant in all subject areas across school. |
| Autumn Term 2 | Scratch programming Making an Xbox cover | Designing a game in scratch. Desktop publishing using vector and bitmap software. | Programming test. Xbox cover. | |
| Spring Term 1 | Microbit project | Programming tasks with microbit hardware. | | |
| Spring Term 2 | Modelling and numeric data | Using spreadsheets and formulae with numeric data. | Programming and spreadsheets test. | Cross-curricular use in maths/science results analysis. |
| Summer Term 1 | "10 things you didn't know about EGS" video project | Group work, planning and organisation, using tablets to record video, video editing. | | |
| Summer Term 2 | Python Turtle | Text based programming of a graphical turtle. | Practical summative exam. | |

*(eg links to prior learning or other subjects, enrichment, rationale, exceptions to the rule etc)

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|-------------------------------------|---|--|-----------------------------------|--|
| Year 8 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments |
| Autumn Term 1 | Copyright Website development Photo project | Website creation and HTML coding. Photo editing to create a spot the difference. | Edited photo. | Copyright relevant cross-curricular. Careers link: website for everything. Careers link: photo editing widely used by magazines, newspapers, professional photographers. |
| Autumn Term 2 | Programming | Developing programming with binary and denary arithmetic, "hello world" input/output, selection (if/else), variables. Developing a simple game. | Programming and HTML test | |
| Spring Term 1 | Flash animations Computer Hardware project | Designing and producing an animation. Creative skills and decomposition of tasks. Understanding parts of a computer and costing different computers. | | |
| Spring Term 2 | Spreadsheets | Developing a better understanding of the use and application of spreadsheets. | Spreadsheets and programming test | Cross-curricular use in maths/science results analysis. |
| Summer Term 1 | Data Handling and Algorithms AppInventor | Familiarity with terminology, loading data files, search algorithms. Developing an App for an android device. | | |
| Summer Term 2 | Google Sketchup project | Computer aided design and computer aided modelling skills. | Formal theory exam | Cross-curricular link to DT |

Curriculum Map 2021 onwards

| Year view Subject: Computer Science | | | | |
|--|---|--|--------------------------------|-----------------|
| Year 9 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments |
| Autumn Term 1 | Programming | Programming including iteration, selection, validation. Practice coding and debugging programs. | Programming task | |
| Autumn Term 2 | Computer timeline Notable computers and people | Working in groups on a research project. Creating and delivering a presentation. | Presentation | |
| Spring Term 1 | Algorithms | Using flowcharts, pseudocode, variables, constants, commenting code, and simple Boolean logic. | Programming task | |
| Spring Term 2 | Pygame games programming | Programming a simple game including testing, creating a test plan and evaluation. | Game | |
| Summer Term 1 | Binary Hardware | Using Binary and Hex representation. Understanding of computer hardware. | Y9 formal exam | |
| Summer Term 2 | Searching and sorting Practice NEA project | Implementing searching and sorting algorithms. Developing processes for managing each aspect of a project. | Game | |

Curriculum Map 2021 onwards

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|--|--|--|--------------------------------|-----------------|
| Year 10 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments |
| Autumn Term 1 | Programming refresher Algorithms | Establishing base knowledge and application of algorithms, iteration, Boolean logic, data types and structures, searching and sorting, and input output. | Written test | |
| Autumn Term 2 | Problem solving Binary and Hex Binary Representaion Programming languages | Establishing base knowledge and application of problem solving, binary and hex, binary representations and programming languages. | Written test | |
| Spring Term 1 | Hardware Software Networks Security | Establishing base knowledge and application of computer hardware, software, networks and security. | Written test | |
| Spring Term 2 | Ethical and legal NEA Revision | Establishing base knowledge and application of ethical and legal issues in computing. Consolidation of learning. | Written test | |
| Summer Term 1 | NEA Revision | Planning, implementing, testing and evaluation of a programming project. Learning to preparing for exams. | Y10 exam | |
| Summer Term 2 | NEA Optional extensions to NEA | Further development of programming skills. | NEA | |

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|-------------------------------------|--|--|--------------------------------------|----------|
| Year 11 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments |
| Autumn Term 1 | Algorithms | Revisiting and refining knowledge and application of algorithms, iteration, Boolean logic, data types and structures, searching and sorting, and input output. | Written test based on exam questions | |
| Autumn Term 2 | Problem solving Binary and Hex Binary representations Programming languages | Revisiting and refining knowledge and application of problem solving, binary and hex, binary representations and programming languages. | Written test based on exam questions | |
| Spring Term 1 | Hardware Software Networks Security | Revisiting and refining knowledge and application of computer hardware, software, networks and security. | Mock exam | |
| Spring Term 2 | Ethical and Legal Revision | Revisiting and refining knowledge and application of ethical and legal issues in computing. Consolidation of learning. | Written test based on exam questions | |
| Summer Term 1 | Revision | Deepening understanding and developing written responses to exam questions. | Mock papers in class | |
| Summer Term 2 | | | | |

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|--|--|---------------|--|-----------------|
| Year 12 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments |
| Autumn Term 1 | Project/Programming Components of a computer Binary arithmetic and floating point numbers Computational logic and Boolean logic | | Numbers and Boolean Logic Test | |
| Autumn Term 2 | Systems software Software development Exchanging data Data types Data structures Boolean algebra | | Little man computer unit and test | |
| Spring Term 1 | Networks and web technologies Legal, moral, ethical Programming techniques Algorithms | | Written exam | |
| Spring Term 2 | Revision | | Written test | |
| Summer Term 1 | Coursework | | Y12 exam | |
| Summer Term 2 | Coursework | | Completion of analysis section of coursework | |

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|--|---|---------------|------------------------------------|-----------------|
| Year 13 | Knowledge/Content | Skills | Assessments/Checkpoints | Comments |
| Autumn Term 1 | Coursework Components of a computer Systems software Software development | | Written test | |
| Autumn Term 2 | Exchanging data Networks and web technologies Data types Legal, moral, ethical and cultural issues Data structures Boolean logic | | Written test | |
| Spring Term 1 | Coursework Programming techniques Computational thinking Algorithms Revision of key topics | | Mock exams Coursework completed | |
| Spring Term 2 | Revision and exam preparation | | Written test | |
| Summer Term 1 | | | | |
| Summer Term 2 | | | | |