KS3 LEARNING JOURNEY

MADELEY SCHOOL
Inspiring Excellence

OCR Creative iMedia

10 & 11

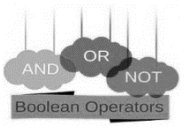
OCR GCSE Computer Science

Programming project
create suitable algorithms which will provide a solution to the problems identified in the task. They will then code their solution in a suitable programming language. The solution must be tested at each stage to ensure they solve the stated problem and learners must use a suitable test plan with appropriate test data.

Computer systems
Understanding the different types of computer hardware, software, computer memory and storage. Introduction to the moral legal and environmental concerns.

Data Representation
Developing understanding of how data is represented by computing devices, understanding binary, binary addition, ASCII , representing images and representing sound

Computational Logic and Algorithms
Creating simple logic diagrams and truth tables. Combine Boolean and logical operators to solve problems. Also, use flowcharts and pseudocode to create create a basic plan to solve a problem, sequence instructions in a logical way, identify potential difficulties



Programming Techniques
Using variables, constants, operators, inputs/outputs (Sequences, selection & iteration. Arithmetic, integers, Boolean Characters & string manipulation, using appropriate data types and casting

Programming fundamentals with Python Turtle
Introduction to text-based programming, using variables, constants, operators, inputs/outputs (Sequences, selection & iteration. Arithmetic, integers, Boolean Characters & string manipulation, using appropriate data types and casting

Binary Bits and Bobs
How data is represented by computing devices, understanding binary, binary addition, ASCII , representing images and representing sound

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Digital Imaging
Using image editing software (Photopea) to create multimedia products and develop image manipulation skills. Students will complete a wide range of tasks to develop their skills which can be applied in some of their option subjects at GCSE.

Spreadsheets
Introduction to the uses of spreadsheets, how to use formula, charts, conditional formatting and validation.

Enterprise
Introduction to business, giving students a chance to get firsthand experience of what it take to start/run your own business based on their own innovation and creativity.

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Micro:Bit programming
Exploring new technologies, recap and applying key programming concepts – sequence, selection and iteration, writing algorithms and using programming concepts to solve problems

1. Digital Literacy and E-safety
Introduction to the school network, sensible filing, E-Safety, E-mail, building skills in Word, PowerPoint and Excel.

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What are computers
Inputs and outputs, human computer, health and safety, introduction to binary, ASCII, storage devices, introduction to networks

The road map to KS3 Computing

Shaw Education Trust