



Year 8: Computer Science

Michaelmas 1	<ul style="list-style-type: none"> • <u>Understanding Computers & E-SAFETY</u> • Understand what is meant by eSafety and how to be safe and responsible while using different technologies. • The impact of the internet and being connected to our wellbeing. Explore different forms of bullying that affect young people: • Computer Systems: Architecture of the CPU
Michaelmas 2	<ul style="list-style-type: none"> • <u>Data Representation (Hexadecimal & binary) Advance</u> • Describe the function of the hardware components of a computer system (CPU, main memory, secondary storage) and how they work together. Advance Data Representation (binary) • Explain why computers use binary to represent data and program instructions. • Convert between binary and denary
Lent 1	<ul style="list-style-type: none"> • <u>Scripting programming with HTML</u> • Advance HTML (Website creation) Scripts programming • Learn HTML and CSS. • Develop a basic website with at 3 web pages
Lent 2	<ul style="list-style-type: none"> • <u>Advance Spreadsheet:</u> • Spreadsheet be formatted, use formulas in spreadsheets, spreadsheet model,
Trinity 1	<ul style="list-style-type: none"> • <u>Algorithm: Control system with Flowol</u> • Computational thinking: Principles of computational thinking: Decomposition, Algorithmic thinking, Abstraction • Representing Algorithms using Flowcharts. Control system with Flowol. Flow Chart Symbol. Algorithms with Flowol. Zebra Crossing. What is a flowchart? Flowchart symbols • Introduction to Flowol. Sequences. Decision table, Use Flowol to make the first traffic lights work. Traffic Light Sequences • Flowol – Controlling a light house and Ferris Wheel, Sensors. Create your own flowcharts • Flowol – Controlling a baby mobile. Controlling a Lighthouse. Control Systems usually work because of a cause • Create Control Systems using Flowol
Trinity 2	<ul style="list-style-type: none"> • <u>Python Programming:</u> • How to create algorithms in a flowchart & Pseudocode. Use selection, sequence and iteration on python. Uses more than two (if, elif and else) conditions to make decisions within a python program