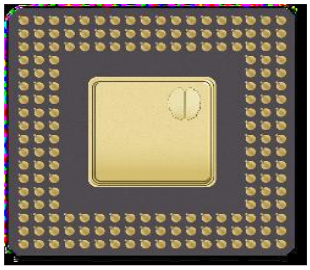

Year 7: Computer Science

Michaelmas 1	• **Understanding Computers & E-SAFETY** • 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: Elements of a computer system
Michaelmas 2	• **Data Representation (binary)** • Describe the function of the hardware components of a computer system (CPU, main memory, secondary storage) and how they work together. Data Representation (binary) • Explain why computers use binary to represent data and program instructions. • Convert between binary and denary
Lent 1	• **HTML and website development: Scripts programming** • HTML (Website creation) Scripts programming • Learn HTML and CSS. • Develop a basic website with at 3 web pages
Lent 2	• **Spreadsheet:** • Spreadsheet be formatted, use formulas in spreadsheets, spreadsheet model,
Trinity 1	• **Algorithm: Control system with Flowol** • 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	• **Python Programming:** • 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