

Computing, IT, Business and Economics Faculty
Curriculum Map for KS3 Computing

Year 8

Statement of Intent	<i>Students build on their Computing skills by extending their digital creativity opportunities and developing coding using physical devices.</i>
Term 1	<p>Topic: Computer Hardware With an introduction defining what makes a computer, then a step-by-step investigation into the role of key components such as the CPU, Hard Disk, RAM and display systems, this topic seeks to reveal to students helpful knowledge of hardware architecture. Homework: Itslearning literacy self-marking task "T1 – Computer Hardware".</p>
Term 2	<p>Topic: Information, Reliability and Bias Through website analysis, investigating URLs, search skills and the study of deep fakes – the difference between fact and opinion is explored with students challenged to hone their skills of discernment and discrimination. Homework: Itslearning literacy self-marking task "T2 – Information, Reliability and Bias"</p>
Term 3	<p>Topic: Data Representation The binary number system (base 2) is introduced, as is the ASCII Character set and methods of cryptography. Binary addition and the digital representation of sound are also taught to students. Homework: Itslearning literacy self-marking task { Data Representation }</p>
Term 4	<p>Topic: Databases Pupils explain what a database is; identify keywords associated with databases and recognise different data types. Databases are queried, interrogated and sorted to generate the appropriate results. Forms are created and adapted to suit individual records. This Homework: Itslearning literacy self-marking task {Databases}</p>
Term 5	<p>Topic: Scratch Programming Variables, IF statements, Loops and sprite design are used to build a functioning game using Scratch block programming. Homework: Itslearning literacy self-marking task "T2 – Coding for kids".</p>
Term 6	<p>Topic: Introduction to Python This first taste of text level programming is designed to introduce students to some initial experience of python script. They will print text to the screen, explain what a variable is, input a value to a variable and try some mathematical commands. Repeat loops and IF statements as well as an understanding of data types will provide students with an early working knowledge of how Python operates. Homework: Itslearning literacy self-marking task {Python}</p>