

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

Year 7

Statement of Intent	<i>Students transition into Secondary Computing with a broad introduction to core skills and the essential elements of Computational Thinking</i>
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As not all groups are having lessons in IT Room this year (only 8 of 10 classes are in IT Rooms) the 4 groups taught Wednesday 2 will swap termly so that each class gets a minimum of 3 terms in IT Rooms. Therefore some units will vary dependent on who their teacher is.

Term 1	<p>Topic: Fundamentals of IT (All Teachers groups) Students learn the basics of the LPA system, opening software, the email system and lpa.itslearning.com as well as the importance of secure passwords, folder structures and common keyboard shortcuts. Homework: Itslearning literacy self-marking task "T1 – Email Etiquette".</p>
Term 2	<p>Topic: e-Safety (All Teachers groups) Online Safety focus covering a wide range of online threats and dangers, including: identity theft; social media usage; privacy settings; reporting inappropriate behaviour; plagiarism; copyright and the safe use of e-Commerce. Homework: Itslearning literacy self-marking task "T2 – e-Safety"</p>
Term 3	<p>Topic: Spreadsheets 1 (Teachers based in IT Rooms for All Lessons – MR and HA) A basic overview of Excel is provided which assumes no prior knowledge of the application but which takes pupils through the main skills to create worksheets, format content, build formulae and generate accurate results, including through charts. Homework: Itslearning literacy self-marking task "T3 or T4 – The Importance of Excel".</p> <p>Topic: Computer Hardware (Teachers based in Non-IT Rooms for Some Lessons – HP and FR) 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 "T3 or T4 – Computer Hardware".</p>
Term 4	<p>Topic: Spreadsheets 1 (Teachers based in IT Rooms for All Lessons – HP and FR) A basic overview of Excel is provided which assumes no prior knowledge of the application but which takes pupils through the main skills to create worksheets, format content, build formulae and generate accurate results, including through charts. Homework: Itslearning literacy self-marking task "T3 or T4 – The Importance of Excel".</p> <p>Topic: Computer Hardware (Teachers based in Non-IT Rooms for Some Lessons – MR and HA) 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 "T3 or T4 – Computer Hardware".</p>

<p>Term 5</p>	<p>Topic: Algorithms 1 (Teachers based in IT Rooms for All Lessons – MR and HA) Students learn about the role of algorithms in automated systems with an exploration of inputs, outputs and processing. They use the Flowol flowcharting application to apply loops and variables to modelled scenarios such as traffic light controllers. Homework: Itslearning literacy self-marking task “T5 or T6 – The Importance of Algorithms for Kids”.</p> <p>Topic: Introduction to Python (Teachers based in Non-IT Rooms for Some Lessons – HP and FR) 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 “T5 or T6 – Introduction to Python”.</p>
<p>Term 6</p>	<p>Topic: Algorithms 1 (Teachers based in IT Rooms for All Lessons – HP and FR) Students learn about the role of algorithms in automated systems with an exploration of inputs, outputs and processing. They use the Flowol flowcharting application to apply loops and variables to modelled scenarios such as traffic light controllers. Homework: Itslearning literacy self-marking task “T5 – The Importance of Algorithms for Kids”.</p> <p>Topic: Introduction to Python (Teachers based in Non-IT Rooms for Some Lessons – MR and HA) 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 “T5 or T6 – Introduction to Python”.</p>