Stratton Upper School

Key Stage 3 Information Technology	Curriculum intent	Curriculum content Computing National Curriculum Key Stage 3	Curriculum delivery Typical curriculum allocation: 2 hours a fortnight
Year 8 Transition project	To ensure that students have the basic ICT capability to use computer systems effectively.	**Word processing & file management** – Able to use standard functions of word processing applications and save/retrieve files. **Spreadsheet** – Perform basic calculations and create basic models/simulations. **Coding** – Understanding of sequence in at least 1 programming language/system.	Delivered in feeder middle schools. 3 activities designed to assess students' current skills in key areas of computing. **Assessment** 3 x 20min tests undertaken in feeder school and marked by Stratton to establish a baseline for students.
Year 9	Students can use computer systems effectively and safely. Equipped with the basic skills required in their future lives and employment, in a greater digital world. Students are prepared for the world of IT with an understanding of key programming constructs and common applications, but also exposed to topics from both IT and Computer Science qualifications at KS4 & KS5.	**ICT Essentials** – Introduction to school computer systems and resources. Overview of software required for all subjects. **E-Safety** – Understanding the risks of the internet **Programming** – developing programs using Makecode and Python. **Binary & Data representation** – How does the computer store and interpret information? **Hardware & Software** – What makes up a computer system?	Each topic is delivered over a half term with a mid-point formative assessment and an end-of-topic summative assessment graded against a given list of topic aims.

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Exam board link:
https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study

Key Stage 4 Information Technology	Curriculum intent	Curriculum content Pearson/Edexcel BTEC Digital Information Technology (QN 603/2740/6)	Curriculum Delivery Typical curriculum allocation: 5 hours a fortnight
Year 10	Evaluate how IT and digital working practices are used in a range of work based and life-based situations – e.g., collaboration in the workplace and communication technologies in real life situations. Understand the security issues surrounding technology and its impact on organisations in the delivery of their services. Understand and apply the different planning techniques used by businesses. Be able to develop user Interfaces and understand the impact they have on a range of different people in a variety of situations.	Component 3: Effective Digital Working Practices A: Modern Technologies B: Cyber-security C: Wider implications of digital systems D: Planning and communication in digital systems Component 1: Exploring User Interface Design Principles And Project Planning Techniques: A: Investigate user interface design for individuals and organisations B: Use project planning techniques to plan and design a user interface C: Develop and review a user interface	Typically, each topic of Component 3 will be assessed formatively during lessons. A summative assessment using past paper questions will be used at the end of each topic (A, B, C, D) to determine student knowledge base. For Component 3, students will be assessed upon the completion of each Learning Aim (A, B, C). Students who do not meet the required standard will be given a short amount of time (15 days) to improve their work to the required standard.
Year 11	Understand that businesses rely on data and information in their day-to-day operations and demonstrate how data and information is used and manipulated in a variety of organisational settings. Students will develop their own 'data and information system' that will be used to manipulate data in order to present useful information.	Component 2: Collecting, Presenting And Interpreting Data A: Investigate the role and impact of using data on individuals and organisations B: Create a dashboard using data manipulation tools C: Draw conclusions and review data presentation methods	For Component 2, students will be assessed upon the completion of each Learning Aim (A, B, C). Students who do not meet the required standard will be given a short amount of time (15 days) to improve their work to the required standard. **Assessment** **Component 1** – internally assessed **Component 2** – internally assessed **Component 3** – External exam, 90 mins

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Exam board link:
https://qualifications.pearson.com/en/qualifications/btec-tech-awards/digital-information-technology.html

Key Stage 5 Information Technology	Curriculum intent	Curriculum content Pearson Edexcel BTEC L3 (Extended Certificate) IT (QN 601/7575/8)	Curriculum Delivery Typical curriculum allocation: 9 hours a fortnight
Year 12	Understand the impact that technology has on society and the workplace. Evaluate how technology and electronic communications are used in different setting as well as having an appreciation and understanding of the 'behind the scenes' technology that underpins our reliance on the internet. Understand how Social Media is used to market and grow a business. Be able to plan out their own strategy and implement a social media campaign for a business, reviewing its success at the end.	<u>Unit 1: Information Technology Systems.</u> A: Digital devices in IT systems B: Transmitting data C: Operating online D: Protecting data and information E: Impact of IT systems F: Issues <u>Unit 3: Using Social Media in business.</u> A:Impact of businesses using SM to promote products and services B: Develop a plan to use SM to promote a business C: Implement the use of SM in a business	For Unit 1, each topic will be assessed formatively during lessons. A summative assessment using past paper questions will be used at the end of each topic (A, B, C, D, E, F) to determine student knowledge base. For Unit 3, students will be assessed upon the completion of each Learning Aim (A, B, C). Students who do not meet the required standard will be given a short amount of time (15 days) to improve their work to the required standard.
Year 13	Understand how databases are designed, developed and implemented. Use techniques for creating effective databases and utilise them to create reports for useful information to be derived from them. Understand and practically apply the skills that web designers use to design, create and improve websites. Evaluate websites and justify methods used to make them effective and engaging. Understand that the 'Design Principles', planning and designing is integral to the implementation process.	<u>Unit 2: Creating systems to manage information.</u> A:The purpose and structure of Relational database Management Systems (RdBMS) B: Standard methods and techniques to design relational database solutions C: Creating a relation database structure D: Evaluating a database development project <u>Unit 6: Creating a Website</u>. A: Understand the principles of website design B:Design a website to meet client requirements C: Develop a website to meet client requirements	Unit 2 is a 'Controlled Assessment'. As such students will be taught and assessed throughout their understanding of database theory and developmental techniques. For Unit 6, students will be assessed upon the completion of each Learning Aim (A, B, C). Students who do not meet the required standard will be given a short amount of time (15 days) to improve their work to the required standard. <u>Assessment</u> Unit 1 – 2 hour exam, 90 marks Unit 2 – Controlled assessment, 10 hours over 1 week, 66 marks Unit 3 – Coursework, internally assessed Unit 6 - Coursework, internally assessed

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Exam board link:
https://qualifications.pearson.com/en/qualifications/btec-nationals/information-technology-2016.html