



Curriculum Map KS3 – ICT Department

Year 7: ICT		
Autumn Term	Spring Term	Summer Term
<p>1. HTML Website Design</p> <ol style="list-style-type: none"> 1.1. Username / Password 1.2. Health & Safety 1.3. E-safety (Cyberbullying) 1.4. VLE 1.5. Web-browser 1.6. HTML syntax 1.7. HTML tags 1.8. RGB Colour codes 1.9. Hyperlinks 1.10. URL 1.11. File Types: png, jpg, gif 1.12. Cropping/resizing pictures 1.13. Client Brief/User Requirements <p>Unit Objectives: Introduction to Text Based programming Programming (HTML Syntax)</p> <p>Problem solving through Trial & Error / Troubleshooting & Decomposition</p> <p>ICT Skills (Digital Literacy) (Manipulating files & folders, using different file formats e.g. for graphics files)</p> <p>Communication Skills – Written and visual communication, target audience, purpose of information.</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Knowledge test: Website concepts • Knowledge test: e-Safety • Assessment of students' website 	<p>2. MS Office Skills (Digital Literacy)</p> <ol style="list-style-type: none"> 2.1. E-mail etiquette 2.2. MS Office 2.3. Word processing 2.4. Presentation software 2.5. DTP software 2.6. Spreadsheet software 2.7. Proof-reading & Spellchecker 2.8. Slide transition & animation effects 2.9. Layout / Margins / Header & Footer 2.10. Layering & Text Wrapping 2.11. Formatting tables 2.12. Worksheets 2.13. Cell references / Formula 2.14. Charts 2.15. What if scenarios <p>Unit Objectives: Develop ICT skills (Digital Literacy) using a range of application software (Word processing, spreadsheet, presentation, DTP, emailing) Manipulating files & folders, using different file formats, transferring content between applications.</p> <p>Communication & Literacy skills (e.g. writing formal letters and documentation), proof-reading skills (including use of spellchecker & thesaurus). Written and visual communication, target audience, purpose of information. Comparing methods of communicating (purpose, pros and cons, context) (Presentation, letters, leaflets, e-mails, webpages, etc.)</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Knowledge test: Application Software • Knowledge test: e-Safety • Assessment of students' "Information Pack" 	<p>3. Block Programming</p> <ol style="list-style-type: none"> 3.1. Sequencing 3.2. Selection 3.3. Iteration 3.4. Variables 3.5. Decomposition 3.6. 2D and 3D coordinates 3.7. Scratch 3.8. BBC Micro-bit 3.9. Beetleblocks (3D printing) 3.10. Input/Process/Output <p>Unit Objectives: Introduction to procedural programming concepts (Sequencing, Iteration, Selection, use of variables) Using block programming including BBC Micro-bit, Scratch and Beetleblocks (3D Printing)</p> <p>Problem solving through Trial & Error / Troubleshooting, Abstraction & Decomposition</p> <p>Algorithmic Thinking</p> <p>Reinforce math concepts: (x,y) coordinates, translations and rotations on a 2D, 3D grid.</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Knowledge test: Programming Concepts • Knowledge test: e-Safety • Assessment of students' final scratch game

Year 8: ICT		
Autumn Term	Spring Term	Summer Term
<p>4. Python Programming</p> <p>4.1. Text-based programming 4.2. Python Syntax 4.3. Python Turtle 4.4. Sequencing 4.5. Selection 4.6. Iteration 4.7. Variables 4.8. Data types 4.9. Casting 4.10. (x,y) coordinates and angles 4.11. Input/Process/Output 4.12. Using an IDE 4.13. Test plan</p> <p>Unit Objectives: Reinforcement of procedural programming concepts using text based programming. (Python) (Sequencing, Iteration, Selection, use of variables)</p> <p>Problem solving through Trial & Error / Troubleshooting, Abstraction & Decomposition</p> <p>Algorithmic Thinking using flowcharts</p> <p>Problem solving using maths concepts including arithmetic calculations (percentages, MOD/DIV, areas and volumes), x-y coordinates, Boolean logic.</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Knowledge test: Python Programming Concepts • Knowledge test: e-Safety • Assessment of Programming Skills 	<p>5. Computing Hardware Concepts</p> <p>5.1. CPU characteristics 5.2. RAM/ROM 5.3. Input devices 5.4. Output devices 5.5. Storage Devices 5.6. Storage Units 5.7. Binary Data 5.8. Network topology 5.9. Network components (Switch, WAP, Router, Firewall) 5.10. IP Address 5.11. Web hosting 5.12. Internet 5.13. Bandwidth 5.14. Wireless transmission (WiFi, 3G/5G) 5.15. Wired transmission (Ethernet Cable)</p> <p>Unit Objectives: Pupils gain a better understanding of how things work in relation to computing hardware and develop their subject knowledge on key computing concepts including hardware, binary data and basic networking concepts.</p> <p>Develop subject terminology revisiting keywords that are relevant to today's digital world.</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Knowledge test: Computing Hardware • Knowledge test: e-Safety • Assessment of student's Hardware presentation 	<p>6. Graphic Design & Photo-editing</p> <p>6.1. Photo editing 6.2. Raster graphics (Bitmaps) 6.3. Vector based graphics 6.4. File formats 6.5. Resolution 6.6. Colour depth 6.7. Transparency/opacity 6.8. Layering 6.9. Masking 6.10. RGB colour codes 6.11. Gradients 6.12. Filters 6.13. Information reliability</p> <p>Unit Objectives: Develop ICT skills using creative software packages.</p> <p>Introduce a range of Graphic Design and Photo-editing techniques to boost pupils' confidence in developing a creative use of ICT through experimentation.</p> <p>Assessment:</p> <ul style="list-style-type: none"> • Knowledge test: Graphic Design concepts • Knowledge test: e-Safety • Assessment of students' digital graphics