

KS3 ICT and Computer Science –

Pupils progressively develop knowledge that is meaningful to them through themed programmes of learning. Activities relating to today's fast paced technological world, together with significant differentiation built into every lesson, means that pupils of all abilities are challenged and enjoy their learning.

<p><u>What will students learn/ what skills will they develop?</u> In Year 7 pupils follow a theme based on secret agents; Organising - Get pupils ready for the year ahead.</p> <ul style="list-style-type: none"> Develop understanding of the School network, acceptable use, e-safety, viruses, files and folders, zipped folders, learning platforms, blogs, graphics, text editing Be able to work individually and collaboratively. e-Communicate for a purpose. Audience and purpose, image storage and file types, slide masters, evaluate different techniques, <p>Visual Programming</p> <ul style="list-style-type: none"> Develop understanding of and apply the three basic logic structures - sequence, selection and loop. Interpret coordinates, controlling movement, interaction, re-use code Understand the purpose of Control Systems. Develop an understanding of what is meant by Input and Output. Develop their skills and understanding of the purpose of variables and set up variables to keep score. Develop the ability to write accurate scripts to move sprites to specific coordinates, such as (150, -150), by understanding a flowchart. Develop their skills of thoroughly testing different scripts and being able to Debug programs and make any changes. <p>Exploring Data</p> <ul style="list-style-type: none"> Develop an understanding of the components of a computer system Develop the skills to find errors with data, cleanse data, surveys, design and build multiple tables and forms, how data is stored, complex queries (multiple criteria and operators), <p>Modelling</p> <ul style="list-style-type: none"> Develop fluency with modelling concepts. Basic formulae; apply to increasingly complex scenarios, interpret models, design tasks, 	<p><u>What will students learn/ what skills will they develop?</u> in Year 8 they organise a world tour for a band, solo artist or organisation of their choice; Organising for the Web</p> <ul style="list-style-type: none"> How to get organised and be safe whilst web working. Browser bookmarks, advanced searches, timeline planning, web services, cloud computing, e-safety, online presentations – protect on-line identity and report concerns <p>Web Programming</p> <ul style="list-style-type: none"> Develop skills to build web pages using HTML. Develop understanding of Webpage elements, HTML, debugging code, inline styles and tags, design, iframes and embed, designing for mobile devices, <p>Networks and the Web</p> <ul style="list-style-type: none"> Develop an understanding of how hard-wired and mobile networks work. Develop the skills to Sort and filter data, Develop understanding of wireless networks costs, cabling survey, how networks work, network diagrams, <p>Digital Media</p> <ul style="list-style-type: none"> Learn and practise numerous techniques and produce a stadium mix according to a timeline plan. Develop an understanding of Transparency, layering, logos, wristband, sound editing, sound effects, sound recording <p>Visualisation</p> <ul style="list-style-type: none"> Develop the skills to Analyse and present data in different ways. Be able to create Complex models, Develop skills for object linking and embedding, route planners, cost benefit analysis, advanced graphs, infographics, 	<p><u>What will students learn/ what skills will they develop?</u> In Year 9</p> <ul style="list-style-type: none"> Students follow the KS4 SOW related to Unit 2 Technology systems and Unit 3 Digital Portfolio. This is in order to prepare them for the BTEC Information and Creative Technology Qualification.
<p>Assessment Mission task: Plan a Mission. Mission task: Escape Simulation. Mission task: Computerised Devices for a Surveillance Mission. Mission task: Produce the Mission America Briefing. Mission task: Top Secret Mission Costs.</p>	<p>Assessment Tour Task: Plan Interviews. Tour Task: Mobile Website. Tour Task: Specify a Network. Tour Task: Radio Chat show. Tour Task: Track Payments.</p>	<p>SMSC Students use a range of online collaboration methods and learn the rules of netiquette. Ethical, Social, Moral, environmental issues surrounding the use of computers and the Internet. Numeracy Pupils deal with co-ordinates, angles, symmetry, proportion, scale, shape, rotation, perspective, adding, subtracting formula, Max, Min, Average, IF. Literacy Key terms are taught explicitly. Reading ICT related news stories and discussions. Pupils provide oral and written evaluation of their work. Research</p>