Sir John Cass
Sir John Cass's Foundation & Red Coat CofE Secondary School and Sixth Form College

Sir John Cass Red Coat School Programme of Study – Key Stage 3
Subject: ICT & Computer Science

Year 7	Year 8	Year 9
Topics Covered/ Areas of Focus: Organising, Visual Programming, Exploring Data, Modelling	**Topics Covered/ Areas of Focus:** Organising for the Web, Web Programming, Networks and the Web, Digital Media, Visualisation	**Topics Covered/ Areas of Focus:** Students follow the KS4 SOW related to Unit 2 Technology systems. This is in order to prepare them for the BTEC Information and Creative Technology Qualification.
Skills Development & Expected Progress: In **Year 7** pupils follow a theme based on secret agents; **Organising** - Get pupils ready for the year ahead. • 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, **Visual Programming** • 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	**Skills Development & Expected Progress:** In **Year 8** they organise a world tour for a band, solo artist or organisation of their choice; **Organising for the Web** • 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 **Web Programming** • 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, **Networks and the Web** • Develop an understanding of how hard-wired and mobile networks work. • Develop the skills to Sort and filter data,	**Skills Development & Expected Progress:** Unit 2 - Develop understanding of uses of Technology system, issues related to use of IT systems, how components of technology systems work together. Legislation relating to use of IT systems. Security of data. Develop knowledge and skill of using different types of software

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. **Exploring Data** • 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), **Modelling** • Develop fluency with modelling concepts. Basic formulae; apply to increasingly complex scenarios, interpret models, design tasks,	• Develop understanding of wireless networks costs, cabling survey, how networks work, network diagrams, **Digital Media** • 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 **Visualisation** • 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,	
Assessment: Mission task: Plan a Mission. Mission task: Escape Simulation. Mission task: Computerised Devices Mission task: Produce the Mission America Briefing. Mission task: Top Secret Mission Costs.	**Assessment:** Tour Task: Plan Interviews. Tour Task: Mobile Website. Tour Task: Specify a Network. Tour Task: Radio Chat show. Tour Task: Track Payments.	**Assessment:** Unit 2 Technology system assessment tasks
Literacy: Key terms are taught explicitly. Reading ICT related news stories and discussions. Pupils provide oral and written evaluation of their work. Research Paying attention to accurate grammar,	**Literacy:** Writing for a wide range of purposes and audiences including notes; Summarising and organising material; Applying their [growing] knowledge of vocabulary,	**Literacy:** Paying attention to accurate grammar, punctuation and spelling. Developing key words glossary. Applying their [growing] knowledge of vocabulary,

punctuation and spelling; Developing key words glossary	grammar and text structure to their writing; Paying attention to accurate grammar, punctuation and spelling; Developing key words glossary	grammar and text structure to their Report writing; Using Standard English confidently in their own writing [and speech].
Numeracy: Order positive and negative integers; Use scale factors. Use the number line as a model for ordering of the real numbers. Move freely between different numerical, [algebraic], graphical and diagrammatic representations; Identify variables; Begin to model situations mathematically; Order positive and negative integers, decimals and fractions; Work with coordinates in all four quadrants.	**Numeracy:** Use standard units of [mass, length,] time, [money] and other measures, including with decimal quantities; Use scale factors, scale diagrams and maps. Bits and Bytes, Kilobytes, Megabytes, Gigabytes.Terrabytes.	**Numeracy:** Develop their mathematical knowledge, in part through solving problems and evaluating the outcomes, including multi-step problems; Conversion Binary, denary, graphs/charts, variables, Bits and Bytes. Use scale factors, scale diagrams and maps.
ICT: ICT is the subject of focus		
Life in Modern Britain: Classroom rules based on respect for others, environment, and equality. Computing- Netiquette- code of conduct for behaviour when online (Part of E-Safety topic). Presenting ideas using ICT application- Topic-Human rights	**Life in Modern Britain:** Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy. Legislation relating to use of ICT. **-Computing History**- Development of First Digital Computer at Bletchly Park for WWII. British values during the War(discussion). -**Tolerance of those of Different Faiths and Beliefs-** Gather resources from different sources on different religion and combine text and image to create a poster using DTP application	**Life in Modern Britain:** Be able to work individually and collaboratively using IT tools. Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy. Legislation relating to use of IC.T Difference between civil law and criminal law- Research search . Parliament Trivia- Fact finding (Internet research task)

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.
Meeting the needs of individual students & Additional Support: After school drop in sessions. Library support
Extra-Curricular Activities & Club: After school drop in sessions.
Independent Study/ Homework: Eduschemes resources
Resources for Learning Support and VLE: Subscribed to teach ICT online resources. Eduschemes resources