Sir John Cass Red Coat School Programme of Study – Key Stage 4
Subject: ICT

Year 10	Year 11
Topics Covered/ Areas of Focus: The online World/Computer Technology. Digital Portfolio.	**Topics Covered/ Areas of Focus:** Database Development.
Skills Development & Expected Progress: **Unit 1 (Exam Units) -** Develop knowledge of Online Services and understand the uses of online documents. Develop knowledge of Online Communication the implication and issues associated with online communication. Develop knowledge and skills on Cloud computing and investigate popular uses of each. Develop knowledge of components of the internet and how digital devices exchange and store information Develop knowledge of security threats when operating online **Unit 2 (Exam Unit)** - Develop understanding of how the components of technology systems work together. Develop understanding of how data flows between internal components of a computer and is processed to provide information. Develop knowledge and skill of using different types of software **Unit 3 (Coursework)** - Develop knowledge and skill of using the project lifecycle. Develop skills on developing storyboards to plan an digital portfolio website. Develop skill in creating website for digital portfolio. Develop understanding and skill of testing and reviewing their final website.	**Skills Development & Expected Progress:** **Unit 10 (Coursework)** • Develop knowledge of the uses of and tools/techniques used in databases • Develop skill of creating Design Documentation including Entity Relationship Diagram (ERD), including entities, attributes and relationships • Develop skills of using software tools and techniques to develop a relational database • Develop skill of testing a relational database for functionality, purpose and usability • Develop skill of using feedback from others to improve and refine relational database Develop knowledge and skill of reviewing relational database and for the user requirements and fitness for purpose
Assessment: Each student will complete a one hour onscreen exam on either Unit 1 or Unit 2. This will be externally assessed by Edexcel and will count towards 25% of their final grade. Pupils will be assessed on their submitted Unit 3 which will count towards 25% of their final grade.	**Assessment:** Pupils will be assessed on their submitted Unit 10 coursework and pupils will also evaluate their work and respond to feedback. Unit 10 will count as 50% of their final grade.

Literacy:	Literacy:
Key terms are taught explicitly Pupils provide oral and written evaluation of their work Develop storyboard design of digital portfolio Reading comprehension. Research.	Key terms are taught explicitly Pupils provide written evaluation of their Database project. Gather effective feedback from clients for improving database.
Numeracy:	**Numeracy:**
Students will be taught spreadsheet formulas and function to demonstrate understanding of numeracy in IT. This evidence is needed for the development of their digital portfolio in Unit 3. Students will also learn how to convert Binary numbers to Denary and vice versa.	Students will be taught to create Database table which will incorporate the use of mathematical search criteria's on databases. Pupils will develop knowledge of binary and denary numbers.
ICT: ICT is the subject of focus	
Life in Modern Britain:	**Life in Modern Britain:**
Understanding of e-Safety when developing a digital portfolio. Students will develop skills in programming as part of Life in Modern Britain. Celebration of different cultures/religion- fact finding tasks for starter activity. Global issues- WAR/Conflict- Newspaper articles and discussion questions. Democratic Institution- Identify institution in the British Legal System (Research task).	-Research the uses of real world database for e-Commerce and governmental use. Understand the impact of ICT legislations. -Learners will gain understanding of the meaning of Democracy and Freedom through discussion tasks with stories from newspaper article, questionnaire on voting as starter activity -Equal rights- student will gain understanding on gender bias at work place and discuss how to promote gender equality as starter activity.
SMSC:	**SMSC:**
Develop knowledge and understanding of eSafety and threats when using the World Wide Web. Develop knowledge of issues arising from advertising online.	Develop knowledge of legal implications of personal data stored in databases held by organisations. Ethical use of data to be discussed.
Meeting the needs of individual students & Additional Support: Tasks leading up to Unit Assignments are designed for individual learners based on the needs of each student. Additional support is provided where needed during extension and homework club.	

Extra-Curricular Activities & Club: Extension Classes	**Extra-Curricular Activities & Club:**
Independent Study/ Homework: The BTEC units will require extensive independent learning to help prepare for the external assessment and for the development of the digital portfolio.	**Independent Study/ Homework:** Unit 10 will require extensive independent learning to help develop and refine a database for the given scenario.
Resources for Learning Support and VLE: Electronic revision material will be available for the exam unit on the Schools VLE Firefly. ePortfolio scenario and assignments will be available on the Schools VLE	**Resources for Learning Support and VLE:** The scenario and assignments will be available on the schools VLE. Database tutorial guides can be downloaded from Firefly during the development of database.