ICT / COMPUTER SCIENCE

Curriculum Intent	To promote computational thinking and digital creativity. Students are actively and engaged and creators in the emerging digital economy.
KS3 Curriculum	The curriculum explores society, historical contexts and parliamentary systems. The curriculum is progressive with more complex content being covered in Y9 and in preparation for KS4
KS4 Curriculum	The curriculum explores social responsibility, wider world democracy and personal political preferences. KS3 provides the understanding of events and systems to inform decisions and preferences at KS4

KS3 ICT

Year Group		HT1	HT2	HT3	HT4	HT5	HT6
7	Content	Year 7 Introduction (4 lessons) -Password/Office 365 -Teams/Assignments -One Drive -Email -E safety- Social Media/Grooming/Cyber Bullying	United Learning Survey Unit 7.2 Unplugged Computing: Codes and messages (4 lessons) -Caesar Cipher -Binary -Binary calculations -Binary Mosaic	Unit 7.3 Programming (7 lessons) -Changing sprite speed -Chasing the mouse -Backgrounds costumes -IF touching -Co-ordinates -Variables EXTRA- Escape Room-Drift in Space.		Unit 7.4 Graphics (6 lessons) -Real or Fake- Appropriate Images -Photopea-Sticker Me Project -Serif Drawplus -Serif PhotoPlus	
8	Content	Unit 8.1 Sorting and Searching (4 lessons) -TEAMS(Assignments) -Email, One Note -Bubble sort -Merge sort EXTRA: Insertion sort, Logic gates, Logic gates multiple gates.	United Learning Survey Unit 8.2 Graphics (4 lessons) Remove a background/magic wand tool/Lasson polygonal tool/layers/text/ Software: Photopea	Unit 8.3 Creative Programming (7 lessons) -Intro to Python -Order Matters -IF -IF, Strings -Integers, Variables -Selection -Iteration		Unit 8.4 Using and Applying Technology: The Internet and the World Wide Web. -Credibility of sources(trusting the internet) -The intent and the world wide web -Packet switching -How the internet works(networks) -The world wide web	
9	Content	Unit 9.1 Programming-Flowcharts and Pseudocode (4 lessons) -Teams(Assignments) -Flowol-Zebra Crossing -Flowol-Traffic Lights -Flowol-Sensors -Intro to referenced language -Escape Room	United Learning Survey Unit 9.2 Media-Graphics (4 lessons) -Genre-Films -Typography -Edit graphics Software: Photopea	Unit 9.3 Creative Programming Python (8 lessons) -Intro to Python -Order Matters -IF -IF, Strings, -Integers, Variables -Selection -iteration	Unit 9.4 Physical Computing-Components (4 lessons) -Input/Output -CPU -Secondary Storage -Microbit Intro -Microbit rock/Name	Unit 9.5 Using and Applying Technology-The Internet, www (6 weeks) -Credibility of sources(trusting the internet) -The intent and the world wide web -Packet switching -How the internet works(networks) -The world wide web	Unit 9.5 Using and Applying Technology-The Internet, www (6 weeks) -Credibility of sources(trusting the internet) -The intent and the world wide web -packet switching -How the internet works(networks) -The world wide web

Computer Science

Year Group		HT1	HT2	HT3	HT4	HT5	HT6
10		**Computer Science**					
	Content	2.4.1 Logic gates, truth tables Python- Lesson 2,3, 4, 5, 6,7 1.2.4 Binary conversion, hex, binary addition, characters, binary shift,binary images,	2.1.1 algorithms, decomposition, abstraction, pattern recognition, problem solving, 2.1.2 purpose of an algorithm, trace table, complete algorithms, 1.2.4 binary sound Python-Lesson 8,	Python-Lesson 9, 10, 11, 1.2.5 Compression 1.1.1 Purpose of the CPU, fetch decode execute cycle, cpu components and their function, Von Neumann Architecture 2.2.1 Programming fundamentals,	Python-Lesson 12,13, 14 1.1.2 Performance of the CPU, 2.2.2 integer, real Boolean, character, casting 1.1.3 embedded systems 1.2.1 primary storage-memory, 2.2.3 arithmetic operations, string manipulation, 1.2.2 secondary storage,	Python-Lesson 15,16, 17 1.2.3 Units 1.3.1 LAN Hardware, WAN, virtual networks, factors that affect the performance of networks, peer-to peer, client server,	Python- reading and writing to a CSV. 1.3.1 network topologies, the internet, wireless networks 1.3.2 protocols, layers, IP MAC addressing, social engineering,
		Computer Science Year 10 going into Year 11					
		1.4.1 methods to detect and prevent , malware, network policy, 1.4.1 penetration firewall 2.3.1 defensive design, 1.5.1 Operating System 2.3.2 Testing 1.5.2 Utility software 1.6.1 legislation	1.6.1 environmental, impact of technology, open-proprietary software, cultural and ethical issues, privacy issues 2.5.1 Programming languages, translators, 2.5.2 IDE 2.1.3 merge sort, bubble sort, merge sort, standard searching algorithms.	Revision 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3	Revision 2.4,2.5		
11		**Computer Science**					
	Content	2.4.1 Boolean Computer Logic, Truth Tables 1.2.4 Data Storage-binary, hex, characters,binary shift,binary images 2.1.1 Representing Algorithms Python-lesson 1,2,3,4 2.1.2 purpose of an algorithm,completing algorithms 2.2.2 data types, real, Boolean, character, casting

Programming – ICT support Python needs to be loaded onto the computers- so we will use a free program until this has been completed.

Mock exam- later then planned due to Year 11 self isolating.

Homework- Revision of content- personalised targets. | 2.2.3 Arithmetic operations, string manipulation. 1.2.3 Units Python-lesson 5,6,7,8,9,10,11 1.3.1 Performance of a network, networks, topologies, 1.3.2 wireless networks, use of protocols, 1.4.1 malware, cyber security threats, network policy 1.4.2 identifying and preventing, penetration, firewalls, 2.3.1 defensive design, 2.3.2 Utility programs 1.6.1 legislation, environmental, impact of technology, open-proprietary software.

Homework- Revision of content- personalised targets. | Python- lesson 12,13,14,15, 16, 17 1.6.1 social media, cultural and ethical issues 2.5.1 levels of programming language, translators 2.5.2 IDE 2.1.3 insertion sort, ,merge sort, bubble sport, standard searching algorithms Reading and writing to a CSV file, reading and writing to a text file

Homework- Revision of content | 6 a day Revision recap of every topic(however this will be personalised depending on students weaker areas)

Programming project- homework

Homework- Revision of content- personalised targets | 6 a day Revision workbook | |

ICT KS4

Year Group		HT1	HT2	HT3	HT4	HT5	HT6
10				**OCR Creative iMedia**			
		Introduction lessons x5- skills based i.e. storyboard, mind map, visualisation diagrams etc. RO82-Creating Digital Graphics start week commencing 15/09/2020	Continuation of R082 Complete live assignment for R082.	R082:Complete Live Assignment	R081:Pre-production(Exam Unit)	R081:Pre-production(Exam Unit	R081 Exam: June 16th 2021-Students first try at the exam unit. RO85: Creating a multipage website-this unit will be started but not completed until Year 11.- Homework will be based on R085. June R082: resubmission if necessary.
				Creative iMedia Year 10 going into Year 11			
	Content	R085: Creating a multipage website- continued.		RO87: Creating interactive multimedia products.			Revision only needed for those who are resitting the exam R081: Exam resit early June
11				**BTEC Creative Media Production**			
	Content	**Component 2a** -Mood Board -Production Process -Article Writing -Logo Design -Camera Angles -Introduction to Graphics -Introduction to image -Manipulation -Typography -Colour Palette -Front cover -Coverlines -Pre- Production Plan -Production -Post Production -Typography -Article Writing **Homework-** 2a- using the knowledge organiser to ensure that all of the keywords and terminology have been used. Students also have access to the marking grid which will allow them to see what they have currently achieved and what they need to do to achieve the grade above.	**Component 2a** -Logo Design -Magazine Terminology -Analysing magazine front covers **Component 2b** -Creation of Pages Same evidence for Component 2a needs to be completed. **Component 2c** **Homework-** 2C-complete self assessment at home- students may use the marking scheme to ensure that keywords have been used. Use of knowledge organiser to ensure all elements have been discussed.				

Year Group		HT1	HT2	HT3	HT4	HT5	HT6
		Travel and Tourism					
10	Content	Unit 2 – UK Travel and Tourism destinations. (core internal unit) Learning aim A - Know UK travel and tourism destinations and gateways Travel categories – capital cities, countryside, seaside resorts, historical destinations. Airports and seaports Road and rail travel – motorways, coach travel and rail lines Examples of UK travel – departures, destinations, timings and costs. Homework – Research and identify UK categories. Learning aim A completion.	Unit 2 – UK Travel and Tourism destinations. Learning aim B - Investigate the appeal of UK tourism destinations for different types of visitors Appeal of UK destinations – Visitor attractions, natural features, accommodation, facilities, arts and entertainment, sightseeing, transport links. Types of visitors – groups, families, specific needs. Increasing appeal – Links to facilities Homework – research and identify UK destinations and their appeal. Learning aim B completion.	Unit 2 – UK Travel and Tourism destinations. Learning aim C: Plan UK holidays to meet the needs of different visitors Research and sources of information – linked to holiday planning for different types of visitors. Planning, budget, timings, motivation and requirements. Plan a UK holiday to meet a specific visitor. Homework – Research and identify, using reliable sources of information for a specific holiday destination with the UK. Learning aim C completion. Intervention – Coursework Unit 2 Learning aim A , B & Completion. Travel and tourism planned destinations. The appeal of UK tourism destinations. UK holiday planning for specific visitors.	Unit 3: The Travel and Tourism Customer Experience. (core internal unit) Learning aim A: Investigate travel and tourism customer service. What is customer service? Purpose of customer service. Aims of customer service. Different types of organisations within the travel and tourism – sizes and types of organisations. Learning aim B - Explore the needs and expectations of different types of customer in the travel and tourism sector. Internal customers within the travel and tourism industry to include colleagues, directors and suppliers. External customers within the travel and tourism to include new, existing and with special requirements. Homework – Research and identify types of organisations by size. Completion of learning aim A. Investigate two travel and tourism organisations and their roles. Completion of Learning aim B.1. Intervention – coursework Unit 3 Learning aim A completion	Unit 3: The Travel and Tourism Customer Experience. Learning aim B - Explore the needs and expectations of different types of customer in the travel and tourism sector. Needs of different types of customers and responding to those needs. Exploring different expectations of different types of customers. Homework – Investigate and evaluate two travel and tourism organisations that meet and exceed their customer needs. Intervention – coursework Unit 3 Learning aim B completion	Unit 3: The Travel and Tourism Customer Experience. Learning aim B - Explore the needs and expectations of different types of customer in the travel and tourism sector. Customer service – skills and techniques, policies, impacts and use of technology. Impacts of excellent customer service – turnover, job satisfaction, complaints and sales. Homework – Investigate how businesses can improve their poor customers for a travel and tourism business. Intervention – coursework for both Unit 2 & 3. Summer homework – Year 11 preparation Unit 1 - The UK travel and tourism sector. Learning aim A - Types of tourism, types of travel, sustainable tourism and the UK economy linked to the travel industry.
		Enterprise and Marketing					
11	Content	-R065 Business Proposal-1-1 session, personalised targets. - LO 2 – 2.1 and 2.2 Costs and revenue LO2 – 2.3 Break-even – decisions LO3 3.1 Product life cycle LO3 3.2 External factors & impacts LO3 3.3 Product differentiation sion making and use - LO4 4.1 pricing factors	- RO66 LO1 Brand identity -LO1 Promotional objectives and methods - RO64 mini mock and self assessment lesson -LO2 – What is a business pitch - LO2 – How to plan a pitch - LO2 Mini pitches - LO3 feedback -RO64 mini mock and self assessment lesson - LO3 Pitch review	Exam January 13th (am)			

| | | LO4 4.2 advertising
Lo4 4.4 Promotion Techniques
11B exam 06.10 11C exam 09.10
- LO5 5.3 Business planning
- LO6 6.1 Functional area
functions 6.2 Activities of
functional areas

Homework: R065 coursework
Intervention: R065 coursework | - LO4 – Strength and weaknesses
of proposal and pitch

Homework: R064 Revision,
RO65 Coursework
Intervention: R065 coursework | | | | |

To equip students with the knowledge and skills required to develop their future employability, linking external economic concepts to critically evaluate local and global business.