Our Mission at The Burgate School & Sixth Form

We provide a broad and diverse curriculum with a creative approach to learning that inspires curiosity, encourages collaboration, builds resilience, and develops flexibility of thought.

Computer Science

Year Group		Topics	Enquiry Questions		Supportive Resources
7	Autumn	• E-Safety and Burgate ICT Skills • Digital Image Manipulation 1	How safe are you online?	How can we change images to fit our needs?	• https://scratch.mit.edu/ • https://replit.com/~ • https://www.photopea.com/ • https://makecode.microbit.org/ • https://www.bbc.co.uk/bitesize/guides/zrtrd2p/revision/1
	Spring	• Micro:Bit Programing • Scratch Programming and Game Building	What is a computer?	How many different skills are required to build a game?	
	Summer	• Python Programming (Basics) • Project Work	What is a computer program and how do we create them from nothing?	What can I do with my skills so far?	
8	Autumn	• E-Safety Refresh and Update • Website creation • Digital Manipulation 2	Are you still safe online?	What does it take to build a website in the age of AI?	• https://scratch.mit.edu/ • https://replit.com/~

	Spring	• Python programming 2 • Scratch Game Building 2	What have I remembered?	How much can I build on my previous understanding?	• https://www.photopea.com/ • https://makecode.microbit.org/ • https://www.bbc.co.uk/bitesize/guides/zrtrd2p/revision/1 • https://www.wix.com/ • https://bard.google.com/
	Summer	• AI vs Humans • Project Work	Are computers going to take over the world?	Are you going to stop them if they are?!	

9	Autumn	• Computer Science
		  o Exploring Algorithms
		  o Python 1
		• Creative iMedia
		  o Image editing 1
		  o Finding your audience
			Is everything we do an algorithm?		• https://replit.com/~

	Spring	• Computer Science
		  o Data Structures
		  o Python 2
		  o AI Explorations
		• Creative iMedia
		  o Video editing 1
		  o Gathering feedback
		  o AI Explorations			

	Summer	• Computer Science
		  o Python 3
		  o Programming Project
		• Creative iMedia
		  o Image editing 2			

		o Video editing 2 o Film Projetcs			
10	Autumn	AQA 8525 Teaching Begins: • 3.1 Fundamentals of algorithms • 3.3 Fundamentals of data representation • 3.4 Computer systems OCR J834 Teaching Begins: • Media Industry Sectors & Products • Job Roles in the Media Industry • How Style, Content & Layout are Linked to Purpose • Client Requirements & How They're Defined • Audience Demographics & Segmentation • Research Methods, Sources & Types of Data			• https://replit.com/~ • https://senecalearning.com/en-GB/ • https://isaaccomputerscience.org/?examBoard=all&stage=all
	Spring	AQA 8525 • 3.2 Programming • 3.5 Fundamentals of computer networks			

		• 3.6 Cyber security OCR J834 • Media Codes Used to Convey Meaning, Create Impact and/or Engage Audiences • Work Planning • Documents Used to Support Ideas Generation • Documents Used to Design & Plan Media Products • The Legal Issues that Affect Media			
	Summer	AQA 8525 • 3.7 Relational databases and structured query language (SQL) • 3.8 Ethical, legal and environmental impacts of digital technology on wider society, including issues of privacy			

		OCR J834 • The Legal Issues that Affect Media • Distribution Platforms & Media • Properties & Formats of Media Files • Coursework project 1 released and begins.			
11	Autumn	AQA 8525 • Revision for Mock Papers OCR J834 • Coursework project 1 completed • Coursework project 2 begins • Revision for Mocks			• https://replit.com/~ • https://senecalearning.com/en-GB/ • https://isaaccomputerscience.org/?examBoard=all&stage=all
	Spring	AQA 8525			

		• Learning based on Mock Findings • Individualised program of study for students based on Mock results. OCR J834 • Coursework project 2 completed • Revision for Exam			
	Summer	AQA 8525 • Revision and Exam 1 and 2 OCR J834 • Revision for Exam			
12	Autumn	• 10 Fundamentals of programming • 11 Fundamentals of data structures • 12 Fundamentals of algorithms • 13 Theory of computation			• https://replit.com/~ • https://isaaccomputerscience.org/?examBoard=all&stage=all

		• 14 [Fundamentals of data representation](#)			
	Spring	• 15 [Fundamentals of computer systems](#) • 16 [Fundamentals of computer organisation and architecture](#) • 17 [Consequences of uses of computing](#) • 18 [Fundamentals of communication and networking](#)			
	Summer	• 19 [Fundamentals of databases](#) • 20 [Big Data](#) • 21 [Fundamentals of functional programming](#) • 22 [Systematic approach to problem solving](#) • 23 [Non-exam assessment - the computing practical project](#) •			
13	Autumn	• Paper 1 Preparation (Skeleton Code) • Mock Revision			• https://replit.com/~ • https://isaaccomputerscience.org/?examBoard=all&stage=all
	Spring	• Individualised program of study for students based on Mock results.			

	Summer	• Revision and Exam 1 and 2			