



Subject Curriculum – Year 7

	Autumn Term		Spring Term		Summer Term	
Big Ideas & Purpose	Learning basic ICT skills needed for other subjects, learning basic computing skills and how a computer works.		Learning basic ICT skills needed for other subjects, introduction to programming.		Learning design skills and introduction to programming.	
Programme of Study	<p>HT1 My dream holiday – PowerPoint</p> <p>For this unit, students have to make a presentation about their dream holiday destination.</p>	<p>HT2 Introduction to Computer science</p> <p>For this unit, students will learn about the different components of a computer and how computers understand things.</p>	<p>HT3 Extreme sports – spreadsheets</p> <p>In this unit, students will learn how to format spreadsheets, how to make graphs and basic formulae/</p>	<p>HT4 Bizarre facts – the internet</p> <p>In this unit, students learn about how the internet works, how to search on the internet, as well as email etiquette.</p>	<p>HT5 Endangered animals – publishing software</p> <p>In this unit, students learn how to use publishing software to make posters and leaflets.</p>	<p>HT6 Game on – Scratch programming</p> <p>In this topic, students have their first introduction to programming. They are required to program a game.</p>
Key Assessments	Assessment on the computer – editing a presentation		<ul style="list-style-type: none"> Assessment on the computer – creating a spreadsheet 		<ul style="list-style-type: none"> Multiple choice test on the computer covering all topics from the past year 	
Key Skills	<ul style="list-style-type: none"> Algorithms and flowcharts Computational maths Spreadsheet skills Design Programming skills Computational thinking Creativity 		<p>Links to Careers</p> <ul style="list-style-type: none"> Accountant Marketing Programmer Game designer Graphic designer 			



Subject Curriculum – Year 8

	Autumn Term		Spring Term		Summer Term	
Big Ideas & Purpose	Learning about the importance of staying safe online. Understanding how a computer works.		A programming based term, introducing skills needed for GCSE. Website design skills develops design skills.		Developing design skills and programming skills.	
Programme of Study	HT1 E-safety – staying safe online In this unit students cover how to stay safe online and learn about topics such as: sexting, grooming, scams, passwords, malware, cyber-bullying.	HT2 Introduction to Computer Science For this unit, students will learn about the different components of a computer and how computers understand things.	HT3 Small Basic programming In this topic, students develop their programming skills further to include text based programming using small basic.	HT4 HTML – coding website design In this unit, students learn how to code a simple website using HTML.	HT5 Jump on the bandwagon – website design using software In this topic, students will learn about how to create an attractive and user friendly website.	HT6 Python programming In this topic, students develop their programming skills further to include text based programming using python.
Key Assessments	Written assessment on e-safety		<ul style="list-style-type: none"> • Small basic written assessment 		<ul style="list-style-type: none"> • Multiple choice test on the computer covering all topics from the past year 	
Key Skills	<ul style="list-style-type: none"> • Computational maths • Programming skills • Design skills • Computational thinking • Creativity 			Links to Careers <ul style="list-style-type: none"> • Police • Programmer • Website designer • Graphic designer • Software developer 		



Subject Curriculum – Year 9

	Autumn Term		Spring Term		Summer Term	
Big Ideas & Purpose	Encryption is a past GCSE topic, still referenced in GCSE now. Develops computational thinking skills.		Developing design skills further, flowcharts are used in GCSE Computer Science. Spreadsheets further develop programming and computational maths skills.		Creative topics which help to develop design skills and give students a feel for creative computer science based jobs.	
Programme of Study	HT1 Encryption	HT2 Introduction to Computer Science	HT3 Digital detectives – image manipulation	HT4 Mayhem manor – spreadsheets and flowcharts	HT5 Drawplus – graphic design	HT6 Advanced website design
	In this unit, students will learn how to encrypt and decrypt using several methods. They will also learn why encryption is important in Computer Science.	For this unit, students will learn about the different components of a computer and how computers understand things.	Students will learn about how to manipulate images including making composite images, colour adjustment and retouching.	Students will cover a range of topics such as spreadsheets, presentations and publishing software. As well as learning how flowcharts work.	Students will learn how to create images using graphic design software.	In this unit, students will build on skills learnt in Y8 to make a sophisticated website on a topic of their choice.
	Written assessment on encryption		<ul style="list-style-type: none"> • Computer based assessment – creating 3 images 		<ul style="list-style-type: none"> • Multiple choice test on the computer covering all topics from the past year 	
Key Skills	<ul style="list-style-type: none"> • Computational thinking • Computational maths • Design skills • Algorithms • Spreadsheet skills • Creativity 		Links to Careers <ul style="list-style-type: none"> • Cyber security analyst • Spy • Programmer • Website designer • Graphic designer • Accountant • Photo editor 			



Subject Curriculum – Year 10

	Autumn Term		Spring Term		Summer Term	
Big Ideas & Purpose	Introduction to python programming, learning the basics for inside a computer, CPU and the fetch decode execute cycle.		The controlled assessment is a mandatory part of the course; it must be completed before the end of Y11 but is a non-assessed piece of work.		Introduction to networking including LANs/Wans, internet, network security and the cloud.	
Programme of Study	HT1 CPU, Inside a computer, FDE, binary, python programming basics	HT2 Logic gates, characters, images, sound, compression	HT3 Controlled assessment	HT4 Controlled assessment, hexadecimal	HT5 Network security, pseudocode, LAN/WAN, internet	HT6 IDE, embedded systems, topologies, the cloud
Key Assessments	Python programming assessment		<ul style="list-style-type: none"> Mock exam paper – 1 paper with theory and programming combined 		<ul style="list-style-type: none"> 2 written exam papers, theory and programming 	
Key Skills	<ul style="list-style-type: none"> Computational thinking skills Programming skills Computational maths Recall of knowledge 		Links to Careers <ul style="list-style-type: none"> Programmer Software developer Teacher/Lecturer Computer Science Data analyst Cyber security analyst IT consultant Penetration tester Systems analyst Web designer Web developer 			



Subject Curriculum – Year 11

	Autumn Term		Spring Term		Summer Term	
Big Ideas & Purpose	Completing the networking topics, as well as covering content from the programming paper.		Learning about the ethical, cultural, legal and environmental aspects of computing. Covering the remaining content from the programming paper.		Revising for exams, built in time to cover more difficult concepts before the GCSE exams.	
Programme of Study	HT1 OS, sorting and searching algorithms, WIFI, protocols	HT2 Mock exams, past exam papers, abstraction and decomposition	HT3 SQL, sub programs, records, testing, legislation	HT4 Defensive design, privacy, cultural, arrays	HT5 Revision for exams and catch up	HT6 GCSE exams
Key Assessments	2 written exam papers, theory and programming		• 2 written exam papers, theory and programming		• GCSE exams	
Key Skills	<ul style="list-style-type: none"> • Computational thinking skills • Programming skills • Computational maths • Recall of knowledge 		Links to Careers <ul style="list-style-type: none"> • Programmer • Software developer • Teacher/Lecturer Computer Science • Data analyst • Cyber security analyst • IT consultant • Penetration tester • Systems analyst • Web designer • Web developer 			