Business and Computer Science

Birches Head Academy

Part of the Frank Field Education Trust

KS3 Curriculum Plan 2025-26 - Computer Science and Business Department

Year 7

	LP1	LP2	LP3	LP4	LP5
TOPIC	***Online Safety***		***Excel - Spreadsheet***	***Programming: Scratch***	
Knowledge	This unit of work will offer all year 7 students to be able to identify the dangers they may face online and how to respond to these dangers. They will also learn the consequences of their actions, including online bullying. Student will also learn PowerPoint skills through creating a online safety presentation.		The spreadsheet unit for Year 7 takes learners from having very little knowledge of spreadsheets to being able to confidently model data with a spreadsheet. This unit will give learners a good set of skills that they can use in computing lessons and in other subject areas such as Maths	The aim of this unit and the following unit is to build learners' confidence and knowledge of the key programming constructs. The main programming concepts covered in this unit are sequencing, variables, selection, and count-controlled iteration. Once learners have achieved this they will build on their understanding of the control structures' sequence, selection, and iteration (the big three), and develop their problem-solving skills. Learners will learn how to create their own subroutines, develop their understanding of decomposition, learn how to create and use lists, and build upon their problem-solving skills by working through a larger project at the end of the unit.	
Skills	Demonstrate skills using specific software and programmes. Demonstrate knowledge and understanding of ICT terminology.				
Key Vocab	Reputation, phishing, malware, disinformation, fake news, influencer, grooming, reputation, hate crime, censorship, pornography, peer pressure		Cell, formatting, conditional formatting, rows, columns, autofill, data, SUM, COUNTA, MAX, MIN, IF, COUNTIF	Blocks, script, sprite, sequence, input, output, process, variables, operators, iteration, debugging, subroutine, decomposition	

Year 8

	LP1	LP2	LP3	LP4	LP5
TOPIC	***Computer Systems***	***Messaging in digital media***	***Graphics***	***Enterprise***	***Programming: Python***
Knowledge	The aim of this unit is to provide a concise overview of how computing systems operate, conveying the essentials and abstracting away the technical details that might confuse or put off learners	This unit is designed to build upon learners' experience in key stage 2 & Year 7. It requires learners to use a range of different skills across several pieces of software. Learners will work between different applications to create a poster and slides on a given theme. The central theme focuses on embedding online safety and secure ways of working from Yr7 LP1.	This unit offers students the opportunity to design graphics using vector graphic editing software. Vector graphics can be used to design anything from logos and icons to posters, board games, and complex illustrations. Through this unit, students will be able to better understand the processes involved in creating such graphics and will be provided with the knowledge and tools to create their own.	This unit will introduce students to the world of enterprise. Students will learn about how businesses operate and market themselves. To conclude students will create a marketing plan for a new ride at Alton Towers. This will also form part of a cross Trust competition students will take part in.	This unit introduces learners to text-based programming with Python. The lessons form a journey that starts with simple programs involving input and output, and gradually moves on through arithmetic operations, randomness, selection, and iteration. Emphasis is placed on tackling common misconceptions and elucidating the mechanics of program execution.
Skills	Demonstrate skills using specific software and programmes. Demonstrate knowledge and understanding of ICT terminology.				
Key Vocab	General purpose, sequence, data, purpose built, components, hardware, architecture, operating systems, logical operators, logic circuits, artificial intelligence	Branding, webcams, identify, iconography, fictional, annotation, consistency	Vector, paths, path nodes	Marketing, price, place, product, promotion, branding	Input, output, sequences, selection, algorithm

Year 9

	LP1	LP2	LP3	LP4	LP5
TOPIC	***Gamemaker***	***Spreadsheets***	***Digital Citizenship***	***Animations***	***Databases***
Knowledge	This unit will enable learners to understand several key algorithms that reflect computational thinking. For example, ones for sorting and searching and use logical reasoning to compare the utility of alternative algorithms for the same problem.	In this unit, learners will gain an understanding and knowledge of how to use spreadsheets to store and manipulate data, how to use common functions, and how to extract data to create visual representations using charts. This LP builds upon knowledge from Year 7 Learners will use spreadsheets to track and calculate income, make predictions, and answer "what if…?" questions. This will build upon learning in year 7 so students will therefore already know how to use cell references, fill colours, and borders, and are familiar with the basic functions, e.g. SUM, AVERAGE, MAX, and MIN.	This unit will build upon a previous online safety LP. Students will understand further a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns	In this unit, learners will learn how to create a 2D animation by applying a range of animation techniques such as frame by frame animation, tweening and the effective use of frame rate. Learners will create and export a multi-layered animation into a format that can be played as a standalone file or as a moving image within a web page. All accompanying animations have been created in Wick Editor	This unit introduces learners to the world of databases and SQL. Learners explore the key terms used in a database and learn why relational databases are used to eliminate redundancy and inconsistencies that can occur in a flat file database. Next they explore increasingly challenging SQL commands where they retrieve, update and delete data in a relational database.
Skills	Demonstrate skills using specific software and programmes. Demonstrate knowledge and understanding of ICT terminology.				
Key Vocab	Enemies, code, lives, scores, objects, levels	Cells, formatting, macros, modelling, charts, data, data validation, Lookup, IF, conditional formatting	Social media, virtual communities, fake news, misinformation, source, reliability, credible, bias, scams, phishing, suspicious, kiosk, hyperlinks, ribbon, stock images	Frame by Frame, requirements, moodboard, storyboard, concept, assets, tweening, layers, frame rate	Table, record, field, primary key, foreign key, flat file. relational