

Curriculum Map 2019-2020

School: Bohunt Educational Trust

Subject: Computer Science

Year Group: 7

	Autumn 1 (8 weeks)	Autumn 2 (7 weeks)	Spring 1 (6 weeks)	Spring 2 (6 weeks)	Summer 1 (5 weeks)	Summer 2 (7 weeks)
Unit	Introduction to IT and E-Safety	E-Safety / Computational Thinking	Introduction to Programming	Spreadsheets	Assessments / Catch Up	Digital Creativity
Key Knowledge	- Logins / Passwords - School IT Systems (Google Classroom, class charts) - Word/Google Docs - PPT/Google Sheets - Saving work (folders / Google Drive) - E-mail - Google & Internet Searching - E-Safety (profiles, privacy settings, who to turn to for help)	- E-Safety (3 weeks) - Posting - Viruses - Copyright laws - Computational Thinking (4 weeks) - Basic CT terms (abstraction, decomposition, patterns, algorithms, evaluation) - Flowcharts	- Block-based programming - Sequencing - Iteration - Selection - Variable - Constant	- Formatting - IF statements - Conditional Formatting - Drop down lists - Basic Formulae (MIN, MAX, SUM, AVG) - Hyperlinks / Graphs - Naming sheets - Advanced Formulae (countif)	- Any spare lessons in this half-term can be used to catch up on missed lessons - Assessment preparation	- School to choose topic, e.g. - Sketch Up - PowerPoint - Publisher - Websites
Key skills	Confident and safe use of school computers	Computational Thinking	Coding fundamentals			Creating Digital content
Examples		BBC videos Cards (making tea)	Blockly Lightbot Microbits Scratch	Quiz Millionaire		
School specific assessment	End of topic test	End of topic test	BET Assessment w/c 15 th Jan & w/c 20 th Jan	Teacher Assessment	BET Assessment w/c 27 th April & w/c 4 th May	Teacher Assessment

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Unit(s)	Python Programming	Digital Creativity	Understanding Computers	Careers in Computing and IT	Digital Creativity / Programming	Digital Creativity
Key knowledge	- Variables - Data Types (strings, integer, floats, Boolean) - Changing between data types (casting) - Sequence - Iteration - Selection	- School to choose topic, e.g. - Photoshop - Cloud Computing - Video editing - Website creation	- Label Hardware - How a CPU works (FDE cycle) - Inputs/Outputs and Accessibility - Binary/Decimal conversions	- School to choose topics, e.g. Computing (2) - Python Recap IT (2) - Spreadsheets	- School to choose topic, e.g. - Photoshop - Cloud Computing - Video editing - Website creation - Python Text Adventure	- School to choose topic, e.g. - Photoshop - Cloud Computing - Video editing - Website creation
Key skills	Python Coding fundamentals		Understand how computers work Confidence in binary	Give students information regarding option choices Link lessons to careers		
Examples	ChatBot Turtle Quiz		Human Computer Binary Treasure Hunt	Python Flags		
School specific assessment	BET Assessment w/c 14 th October & w/c 21 st October	Teacher Assessment	End of topic test	BET Assessment w/c 9 th March & w/c 16 th March	Teacher Assessment	Teacher Assessment

Year 7 Assessments 2019-2020

Year 7 BET 1	Year 7 BET 2
• Understand the need for strong passwords • Understand what makes a strong password • Rules regarding internet safety (do and don'ts, what to do if concerned) • E-safety (profiles, privacy settings, help, viruses, acceptable content, copyright laws) • Rules reading e-mails (appropriate content and length, include a subject, do not send to whole school, use of attachments) • Internet searching (understanding the results, how to narrow down a search) • Computational Thinking Terms (Abstraction, decomposition, pattern recognition, algorithms, flowcharts)	• All of Year 7 BET 1 Assessment content • Understand what spreadsheets are, what they can do and which jobs use spreadsheets • Recognise basic parts of a spreadsheet (column, row, cell, sheet) • Recognise the main features of a spreadsheet (formatting, formulae) • Understand how basic formulae work (SUM, MAX, MIN, AVG) • Understand basic IF formulae (=, >, <) • Understand advanced features in spreadsheets (conditional formatting, drop down lists, hyperlinks, countif) • Understand the programming terms (sequence, selection, iteration, variable, constant) • Interpret block based programs regardless of the programming language used.

Year 8 Assessments 2019-2020

Year 8 BET 1	Year 8 BET 2
• Understand the programming terms (sequence, selection, iteration, variable, constant) • Interpret block based programs regardless of the programming language used. • Understand the following Python keywords (print, input, if/elif/else) • Be able to follow a simple piece of Python code using the above keywords to work out the output	• Understand the programming terms (sequence, selection, iteration, variable, constant) • Understand the use of variables in Python programming (how to create them, assign values and compare variables e.g. if (score == 10): • Remember the main data types (integer, float, Boolean, string) and when to use a particular data type given a variable/value • Understand the following Python keywords (print, input, if/elif/else, for, while) • Be able to follow a simple piece of Python code using the above keywords to work out the output • Recognise and state the function of the main components in a computer (CPU, Motherboard, RAM, PSU, Heatsink, Hard Disk Drive) • Understand how the CPU Fetch, Decode, Execute cycle works • Recognise a range of devices as either input, output or both (keyboard, mouse, webcam, monitor, printer, scanner, headphones, speakers, microphone, gaming headset, touchscreen, joystick, actuator) • Identify and state devices to help people with disabilities (braille keyboard, braille printer, eye-typer, puff-suck switch, test-to-speech, foot mouse) • Understand why computers use binary • Understand the units bit, nibble, byte • Convert between binary and decimal (up to 8-bit numbers) • Recognise basic parts of a spreadsheet (column, row, cell, sheet) • Recognise the main features of a spreadsheet (formatting, formulae) • Understand how basic formulae work (SUM, MAX, MIN, AVG) • Understand basic IF formulae (=, >, <) • Understand advanced features in spreadsheets (conditional formatting, drop down lists, hyperlinks, countif)