Computing Curriculum 2022/2023

STOKE HIGH SCHOOL - Ormiston Academy

OAT Ormiston Academies Trust An OAT Academy

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	**Getting Started: School System** **Year 7 Baseline Check** – this is designed to check a students understanding of the basics of Computing skills **Office 365 & SharePoint Cloud Computing** – Students are introduced to the concept of working virtually and using online software **Using Email** – Students witness how to use email appropriately and exchanging and sharing information and develop email etiquette **Converting Documents (Language)** – this is a useful skill in translation tools built into Office. Students will learn some useful features which will support them in languages and tools used to translate documents **Using Office Applications** – this introduces students to the fundamentals and best practice when using the Office application suite **Intro to Safer Schools APP** -this highlights to students how to be safe and aware of their digital footprint and well-being in an online world		**Online Safety & Computer Crime** **Malware** - Students will identify different forms of malicious software that are designed to cause harm or disruption to computer services **Password security** - Students will recognise the importance of security measures, identifying different form and exploring best practice when creating safe and secure passwords for online accounts **Criminal intent** – students will explore the nature of online cyber crime, the reasons behind it and ways in which to recognise potential threats to data **Digital footprints** – Students will recognise what a digital footprint is and identify tracking and tracing and the impact of online movement		**Scratch?** **Commands, Loops, Variables, Conditions and Branching** – students will learn a programming language to identify the commands used to carryout a specific task or function. This will be either graphic or text based. They will learn a variety of commands and instruction	
Assessment	**Multiple choice quiz**		**Multiple choice quiz**		**Criteria checklist/Output of code**	
	Reading Presentations, Carryout worksheet activities, Use of Knowledge organisers, Use of written tutorials , News articles, Comprehension tasks, Word-searches, Homework Tasks, Use of word banks and find the missing word, Use of learning logs for recount and recall, DO NOW tasks					
8	eSafety Refresher, then: **Graphics** **Vector / Bitmap Graphics** – Students will learn how images are recorded and the two different formats as mentioned **Font and colour analysis** – students will explore how different fonts and colour are used within industry as to how they may convey a meaning **Develop graphic editing skills** – students will develop and refine editing skills to assemble graphics for a given purpose		**Computer Systems and Logic** **Inside the CPU** – student will explore computing fundamentals of the central processing unit and its purpose within all computer devices **Memory and Storage** – students will recognise how memory is used within computing and the various methods of storing data **Computer Hardware** – students will identify the different computer hardware, identifying connectivity and how data is exchanged **Boolean Logic & Flowchart** – students will develop logic and sequencing within computing science and apply these skills within a given scenario		**Physical Computing** **Crumble bots and MicroBits** **Students build on their programming knowledge from Year 7 and investigate:** **Algorithms** **Variables** **Conditionals** **Iteration** **Booleans** **Bits, bytes, and binary**	
Assessment	**Movie poster output/grading criteria**		**Spreadsheet model and graded criteria**		**Multiple choice quiz**	
	Reading Presentations, Carryout worksheet activities, Use of knowledge organisers, Use of written tutorials , News articles, Comprehension tasks, Word-searches, Homework Tasks, Use of word banks and find the missing word, DO NOW tasks					
9	eSafety Refresher, then: **Web Development – HTML and CSS** Learn about HTML and CSS, utilise skills to: Design a simple website Create a web page using HTML Create links to pages Create a web form **Understand how websites are tested and debugged**		**Spreadsheet Modelling** **Computer Model Basics** – students will identify how computer software is used within simulations and modelling scenarios **Create a financial model** – students will create and develop a simple financial model and recognise where and how these might be used from budgeting to sales **Formatting techniques** – students will explore the different techniques used to display data in both table and graphical format fit for intended audience and purpose **Calculations** – Students will use software to perform various calculations and function		**Python** **IO and Variables** **Selection** **Iteration** – For loops and While loops Problem solving and debugging	
Assessment						
	Reading Presentations, Carryout worksheet activities, Use of Knowledge organisers, Use of written tutorials, News articles, Writing frames and scaffolding techniques, Use of word banks, DO NOW tasks, Online reading (website)					
10	***Component 1 – Learning Aim A Assessed Assignment Students will investigate user interface design for individuals and organisations	Component 1– Learning Aim B Assessed Assignment Students will learn and apply project planning techniques to	Component 1– Learning Aim C Assessed Assignment Students will create, develop and review a user interface	Component 1– Learning Aim C Assessed Assignment Following testing, students will evaluate the effectiveness of their	Component 3 -Theory Exam Component Students will develop their understanding of the following: Cloud computing, network connectivity, The Law and Computing, Planning tools, Impact of modern tech, Threats	

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		plan and design a user interface		interface product	to systems, Computer Policies, Responsible use, Environmental impact, Equal Access and Accessibility, Information system diagrams	
11	**Component 2– Learning Aim A** Students will investigate the role and impact of using data on individuals and organisations **Component 3 (alongside Component 2)** Students will underpin their knowledge for the External Exam Component	****Component 2– Learning Aim B Assessed Assignment** Students will create a dashboard using data manipulation tools **Component 3 (alongside Component 2)** Students will underpin their knowledge for the External Exam Component	**Component 2 – Learning Aim C Assessed Assignment** Students will: • identify patterns and trends based on data • Draw conclusions • Data analysis • Assess the effectiveness of the design ***Prepare for exam***	**Review: Component 3 -Theory Exam Component** Students will develop their understanding of the following: Cloud computing, network connectivity, The Law and Computing, Planning tools, Impact of modern tech, Threats to systems, Computer Policies, Responsible use, Environmental impact, Equal Access and Accessibility, Information system diagrams	Exam Prep	
	Reading Presentations, Carryout worksheet activities, Use of Knowledge organisers, Use of written tutorials , News articles, Writing frames and scaffolding techniques, Use of word banks, DO NOW tasks, Revision guide comprehension tasks for theory element, exam question analysis and breakdown tasks					

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