IT COMP Y8 CURRICULUM AND ASSESSMENT MILESTONES DOCUMENT

YEAR 8 CURRICULUM MILESTONES: IT COMP

Topic 1: Online Safety		
Learning aim		
Explain what an online relationship is and how to manage them		
Explain how to manage your online reputations and understand how it can affect your future		
Describe the ways in which personal data can be protected online		
Describe what is meant by the term sexting and why it is inappropriate		
Topic 2: Python Turtle Programming		
Learning aim		
Use simple written instructions to make shapes in Python		
Describe what the terms decomposition, iteration and algorithm mean		
Use decomposition and iteration to make more complex shapes in Python		
Topic 3: Managing Data		
Learning aim		
Understand what a computer model is and how they are used		
Use basic formula and functions such as multiply and sum to create a financial model		
Describe how businesses use 'What if' analysis to help make decisions		
Use advanced functions such as IF Statements to create financial models		
Describe what is meant by the term data validation and use it in a financial model		
Use Macros to automate a financial model and create charts		

Topic 4 – Python Text Based Programming		
Learning aim		
Use the print function to be able to output code		
Describe what a syntax error is and identify errors in a piece of code		
Identify the types of data used in a program		
Use casting to create programs in Python		
Explain what is meant by the term 'Conditional formatting		
Use IF, ELIF and ELSE functions in a program		
Topic 5 – BITE Basics (New Unit)		
Learning aim		
Describe how businesses differentiate their products from their rivals		
Explain what market segmentation is and how it is used to target different customers		
Describe what is meant by the term franchising and give real business examples		
Explain the strategies that businesses can use to price their products		
Explain with examples how businesses can advertise their products		
Topic 6 – Computing Fundamentals		
Learning aim		
Explain the difference between hardware and software		
Identify the common computer components such as hard drive and monitors		
Describe what a computer network is and identify the key components that are required		
Describe the role of the CPU		
Convert denary to binary and binary to denary		
Describe how computers understand characters		
Use ASCII to convert characters		

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Topic 1 & 2: Online Safety and Python Turtle	Pupils will complete an end of topic diagnostic test which covers both topics. Pupils should demonstrate knowledge of the following for Online Safety: How to protect data online, what the common dangers are of being online and how to safeguard yourself against them. Pupils should demonstrate knowledge of the following for Python Turtle: a recognition of an understanding of the term's: variable, algorithm, sequencing, iteration and debugging.
Topic 3 & 4: Managing Data and BITE Basics	Pupils will complete an end of topic diagnostic test which covers both topics. Pupils should demonstrate knowledge of the following for Spreadsheets: What spreadsheets are commonly used for, what the difference between formulas and functions are and how data can be represented. They will also be given verbal feedback during the lessons. Pupils should demonstrate knowledge of the following for BITE Basics: What the function of the marketing department is, how businesses use the 4Ps (product, price, promotion and place)
Topic 5 & 6: Advanced Python and Computing Fundamentals	Pupils will complete a diagnostic test. Pupils should demonstrate knowledge of the following for Python Turtle: a recognition of an understanding of the term's: variable, algorithm, sequencing, iteration and debugging. Pupils should demonstrate knowledge of the following for Computing Fundamentals: An understanding of the different hardware and software components that make up a computer, the role of the CPU, how to convert binary into denary and how computers handle and process data