Key Stage 3 Curriculum Map 2020-21

Term 2

Year Group:	Subject:		
Focus/Topic	**Objectives**	**Key Skills/ UAE Links**	**Home Learning/ Recommended Reading**

• Audio Editing	• Evaluation and Assessment
	   o To evaluate your own work taking into consideration others' opinions
	   o To evaluate someone else's work
	   o To review requirements for a sound editing project
	   o To complete the assessment portfolio
		• Evaluation and improvements
		• Feedback
			• MS Teams resources
			• Digital worksheets
			• Project work

• Networking	• The internet
	   o Learn what the Internet and World Wide Web are
	   o Learn how web addresses are constructed
	   o Learn what a protocol is and why one is needed for data communication
	   o Understand how packet switching works
	   o Learn what the Domain Name Server (DNS) does
		• What is the WWW and the internet
		• Understating URL's
		• Packet switching
		• What is the DNS
			• MS Teams resources
			• Digital worksheets
			• **www.who.is**

	• Connectivity	• Buffering and how to reduce its effects	• MS Teams resources • Digital worksheets

	○ Learn the meaning and significance of bandwidth ○ Compare different types of cable, and the relative speeds of data transmission ○ Calculate time taken to download files of different sizes at different bandwidths ○ Understand what is meant by buffering and why it is used •	- Speed tests - Calculating download times •	
	• Topologies ○ Understand the difference between LANs and WANs ○ Be able to give an example of each type of network ○ Know what extra hardware is needed for a LAN to operate ○ Identify three different network topologies – bus, ring and star	- Network types - Draw and discuss advantages and disadvantages of various topologies - Hardware needed - Select the correct topology for a given scenario	- MS Teams resources - Digital worksheets
	• Client-server networks ○ Understand what constitutes a client-server network ○ Contrast a client-server network with a peer-to-peer network ○ Be able to list advantages and disadvantages of each model ○ Understand what is meant by cloud computing	- Professional use of cloud storage - Advantages and disadvantages of each model	- MS Teams resources - Digital worksheets

	o List the main advantages of cloud computing •		
	• Encryption o To identify some of the types of data that need to be kept secure o To learn some of the ways in which data is kept secure o To learn how unauthorised people can break ciphers and read encrypted data o To learn some classical encryption techniques	• Importance of encryption • How to preform basic encryption • Plaintext and ciphertext	• MS Teams resources • Digital worksheets
	Half Term		
• Networking	• Assessment		
• Hardware, Software and Logic	• Introduction to internal and external components of computer o Identify different components of computer o Classify computer components as input, output and storage devices o Explain the basic functions of internal and external components of a computer	• Identify and understand what various hardware does •	• MS Teams resources • Digital worksheets
	• To understand the working of CPU and memory of a computer o Explain the functions and components of CPU o Differentiate between RAM and ROM	• Key components of the CPU and their jobs • Difference between ROM and RAM • Effective RAM has on performance and why	• MS Teams resources • Digital worksheets
	• To explore functions of Operating system o Explain what is a software o Discuss why we need Operating System o Evaluate different types of Operating systems	• What is the OS • Why is the OS important to software •	• MS Teams resources • Digital worksheets

	To explore the usage of different application software
	    ◦ Differentiate between application software and system software
	    ◦ List different types of application software and utility software
	    ◦ Propose which software to use for given scenario
		• Understating the bespoke purpose of each software type
		
		•
			• MS Teams resources
			• Digital worksheets

Spring Break			