Yearly Overview Plan

Term 1	**Subject: Computer Science**			
Unit Topic	Learning Outcomes		Real World / UAE Application	Assessment Methods
Online safety in the UAE	- L1 to learn the basics of staying safe online in the UAE. - L2 application of the LAW within UAE. - L3 evaluation of the cyber law within the UAE		- Students learn how to be active digital citizens online - Students research and learn the different laws affecting them in the UAE	- This topic will be assessed by question and answering - We will use "silent debate" to assess the students and gain a firm understanding of the aspects that they have covered
HTML	Wk1	• Understand that the WWW is a huge collection of websites all over the world • Learn what HTML is and what it is used for • Type basic HTML tags using a text editor to create a page that can be viewed in a browser • Edit the HTML code and view the changes in a browser	- Students to create websites on the UAE expo. This will mean that students have to research the UAE and the expo.	- Pupils will put evidence of their final website in an Assessment Portfolio. They will also answer questions on HTML, CSS and web design principles in order to demonstrate understanding. It is recommended that regular teacher assessment, including questioning and observation, is used in each lesson in order to reinforce the evidence of understanding in the Assessment Portfolio.
	Wk2	• Learn how CSS is used to set the styles in web pages and websites • Write CSS code to set styles, e.g. background colour of sections of the page; size, font, colour and alignment of text • Learn what is meant by responsive design, and create a responsive web page • Learn the main principles of good website design		
	Wk3	• Complete website designs and gather content • Use an HTML template to create consistent web pages • Use **float** to position elements on a page		

	Wk4	• Learn how to create a consistent look and feel throughout a website • Add well-formatted content, including text and images, to each page • Create internal and external links and make sure they all work		
	Wk5	• Carry out final tests		
	Wk6	• Perform a self-evaluation of level of skills and understanding achieved for the unit		
	Wk7	• Complete the Assessment Portfolio		

Term 2	**Subject: Computer Science**			
Unit Topic		Learning Outcomes	Real World / UAE Application	Assessment Methods
Computer Crime and cyber security	Wk1	• Learn about the Computer Misuse Act – which makes certain activities illegal	• Students learn how to be active digital citizens online • Students research and learn the different laws affecting them in the UAE	Students will use the learning booklet to answer personalised questions.
	Wk2	• Understand what is meant by malware		
	Wk3	• Understand what is meant by a computer virus and give examples of how to stay safe.		
	Wk4	• Look at examples of computer misuse		
	Wk5	• Understand what is meant by hacking		
	Wk6	• Learn ways to protect yourself from malware & hacking		
Networking	Wk1	• To be able to describe what a network is. • To start to understand the different types of networks.		

		• To be able to assess what networks would be required in different scenarios.		
	Wk2	• To understand what a topology is. • To describe the three different network topologies. • To identify key advantages and disadvantages of each network topology.		
	Wk3	• To understand the hardware used to set up a network. • To describe the differences between a wired and wireless network. • To identify and justify when a wired or wireless network is required.		
	Wk4	• To understand what data packets are. • To describe how computers send and receive data using data packets. • To identify different network models and explain how they work.		
	Wk5	• To understand what the World Wide Web and the Internet are. • To describe how latency and bandwidth affect a network. • To identify the difference between the WWW and the Internet.		

Term 3	**Subject: Computer Science**	

Unit Topic	Learning Outcomes	Real World / UAE Application	Assessment Methods
introduction to Python	• Learn what Python is and some of the applications it is used for • Run a simple Python program in Interactive mode using the input and print functions • Write, save and run a program in Script mode • Understand what a syntax error is and how to interpret an error message • Know the rules for variable names and use variables in a program Understand the use and value of comments in a program	With Expo2020 coming up how will be able to understand computers help people in the UAE could this give them the edge over other developing country's?	Pupils will write and run a program and submit the code and screenshots of the program running in a learning Portfolio.
	• Understand the importance of using correct data types string, integer, float • Understand how to use assignment statements correctly • Perform arithmetic using the BIDMAS rule • Use the int, float and round functions Write a program involving input, calculation and output		
	• Use selection statements if, else and elif in a program • Use indentation correctly to define a block of code		
	• Learn to write algorithms in pseudocode • Review the difference between syntax errors, run-time errors and logic errors • Learn techniques for debugging programs		
	• Use a while loop in a program • Use an if statement within a while loop • Use a function to generate a random number • Understand and apply the principle of a binary search		

	• Compare the efficiency of a binary search with a linear search		
	• Compare alternative algorithms for a given problem • Use a linear search to find a number • Understand how a binary search works		
	• Test a program • Complete the assessment		