مدرسة القديسة مريم الكاثوليكية الثانوية - دبي

ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

Theory

YEAR 10 – Computer Science (Week 3) 2021-2022

Subject	**Computer Science**
Class/ Section	**Year 10 A-F**
Week	**12th September to 16th September**
Work send to students by	**Google classroom**
Total number of lessons per week	**2**
Unit/Topic	**Unit 4: Computers** **Chapter 17 : Hardware**
Key Vocabulary	core, multicore processor, dual-core processor, single-core processor, cache, static RAM
Lessons 1,2–Live Zoom & GC lessons along with face to face instruction for students present on a particular day **Work will be assigned in Google classroom which will be matched to the students' ability.**	**Specific Learning objectives** ❖ Understand and describe the factors that affect the performance of the CPU. ❖ Understand the need for embedded systems. **Specific Intended Learning Outcomes** Students will be able to ❖ understand and interpret the factors that affect the performance of the CPU (Clock speed, number of processor cores, size of cache, types of cache) ❖ understand the need for embedded systems and describe their functions
Tasks	Students will complete the Activity questions 1, 2 and 3 on embedded systems and factors that affect the performance of the CPU.

Assessment Criteria/ Essential questions	- Explain the role of embedded systems in real life applications. - Describe the three factors that affect the performance of the processor. Assessment objectives expected by the board with respect to the above question is listed below. AO1: Demonstrate knowledge and understanding of factors that affect the performance of the processor. AO2: Apply knowledge and understanding of key concepts of embedded systems and their functions.
Resources	Pearson Edexcel International GCSE(9-1) Computer Science Book PowerPoint presentation **Resource video links:** https://www.youtube.com/watch?v=eS1rEJZKr4U https://www.youtube.com/watch?v=gVFCHO4NCN8 https://www.youtube.com/watch?v=6u9CNiqqA9o

YEAR 10 – Computer Science (Week 3) 2021-2022

Subject	**Computer Science**
Class/ Section	**Year 10 A-F**
Week	**12th September to 16th September**
Work send to students by	**Google classroom**
Total number of lessons per week	**2**
Unit/Topic	**Unit 2 : Programming** **Chapter 8 : Data structures**
Key vocabulary	array, index, record, field
Lessons 1,2–Live Zoom lesson along with face to face instruction for students present on a particular day **Work will be assigned in Google classroom which will be matched to the students' ability.** **Tasks**	**Specific Learning objectives** ❖ Understand the need for, and understand how to use two-dimensional array. ❖ Construct and use two-dimensional lists in Python programming language. **Specific Intended Learning Outcomes** Students will be able to ❖ Describe the structure of two-dimensional array and give examples of their use. ❖ Create and use two–dimensional lists in Python programming language. Activities 1, 2 & 3 on two-dimensional list will be posted in Google classroom. To encourage collaborative learning environment, students will be grouped in break out rooms to discuss and solve the questions.

Assessment Criteria/ Essential questions	Develop a program for a simple address book that uses a two-dimensional list to store a set of names and email addresses and allows the user to search for a person by name and returns their email address.
	Assessment objectives expected by the board with respect to the above question is listed below.
	AO1: Analyse problems in computational terms to make reasoned judgements.
	AO2: Analyse problems in computational terms to design, program, test, evaluate and refine solutions.
Resources	Pearson Edexcel International GCSE(9-1) Computer Science Book PowerPoint presentation.
	Resource video links: https://www.youtube.com/watch?v=B5GhlXhDfoE https://www.youtube.com/watch?v=mYBK8tQP2TY