مدرسة القديسة مريم الكاثوليكية الثانوية - دبي

ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

Theory

YEAR 10 – Computer Science- (Week 2) 2021-2022

Subject	**Computer Science**
Class/ Section	**Year 10 A-F**
Week	**5th September to 9th 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	Register, control unit, bus width, Arithmetic/logic unit, clock
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** ❖ Identify the components of the CPU. ❖ Understand and explain the role of components of the CPU in the fetch-decode-execute cycle. **Specific Intended Learning Outcomes** Students will be able to understand and explain the ❖ Components of the CPU – Control Unit, ALU, Registers and buses. ❖ Concepts of a stored program and the role of components of the CPU – in the fetch-decode-execute cycle(the von Neumann model)
Tasks	. Students will complete the Activity questions 1 to 4 (given in the PowerPoint presentation)

Assessment Criteria/ Essential questions	Explain how program instructions stored in computer memory are processed by the Central Processing Unit. Assessment objectives expected by the board with respect to the above question is listed below. AO1: Demonstrate knowledge and understanding of components of Central Processing Unit. AO2: Apply knowledge and understanding of key concepts of components of the CPU in the fetch-decode execute cycle.
Resources	Pearson Edexcel International GCSE(9-1) Computer Science Book PowerPoint presentation **Resource video links:** • https://www.youtube.com/watch?v=VPve5_XYyig • https://www.youtube.com/watch?v=Z5JC9Ve1sfI • https://www.youtube.com/watch?v=QUVEtwcTe0w

Practical

YEAR 10 – Computer Science (Week 2) 2021-2022

Subject	**Computer Science**
Class/ Section	**Year 10 A-F**
Week	**5th September to 9th 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	data structure, array, index
Lessons 1,2–Live Zoom 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** ❖ Illustrate the structure of one-dimensional array. ❖ Construct and use one-dimensional list in Python programming language. **Specific Intended Learning Outcomes** Students will be able to ❖ Describe the structure of one-dimensional array and give examples of their use. ❖ Create and use one–dimensional list in Python programming language.
Tasks	Activities on one-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	Create a flowchart of Bubble sort algorithm and implement the same in Python programming language.

Resources	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. Pearson Edexcel International GCSE(9-1) Computer Science Book PowerPoint presentation. **Resource video links:** • https://www.youtube.com/watch?v=lFzHFUvGL7I • https://www.youtube.com/watch?v=Eaz5e6M8tL4 • https://www.youtube.com/watch?v=9OeznAkyQz4