

UNIT OVERVIEW & LEARNING JOURNEY

YEAR 10 – Computer Science: TERM 1

J277/01 – COMPUTER SYSTEMS



PRIOR LEARNING (from Key Stage 3) :

	TERM 1	TERM 2	TERM 3
YEAR 7	MY DIGITAL WORLD Be SMART online and using ICT Software Mastery: Microsoft Suite	AUDIENCE AND PURPOSE Create products that have impact Software Mastery: PowerPoint	UNDERSTANDING COMPUTERS How computers work Software Mastery: Scratch
YEAR 8	DIGITAL MEDIA Being creative in a digital world Software Mastery: Photoshop	CYBER SECURITY Living in the modern world Software Mastery: PowerPoint	PYTHON BASICS Begin to programme Software Mastery: Python
YEAR 9	CREATIVE DESIGN Creative iMedia taster Software Mastery: Photoshop	ADVANCED PYTHON Computer Science taster Software Mastery: Python	CREATE A VIDEO Research developing technology Software Mastery: Premier Elements

Aim of the Unit

In this unit students will learn how to develop an understanding of computer systems function. Students will learn the role of the CPU, Memory, and the need for secondary storage.

Topics to be covered:

- Systems Architecture
- Memory
- Storage

Assessment Procedure

The topics covered in this unit, will help prepare students for some of the theory needed for Paper 1. This will be examined at the end of Year 11 and is worth 50% of the final mark for the course. During the lessons, students will undertake informal MCQ (multiple choice questions) to diagnose misconceptions. They will then undertake an end of unit assessment. The assessment will be out of 50 marks.

Homework

Homework will be set at least once a week. Seneca assignments will be assigned to help with knowledge retrieval in the run up to assessments. Details of individual homework can be found on Synergy.

How can you help?

Encourage your child to attend sessions with their teacher after school to improve their understanding. They should also review their theory regularly at home, as well as complete homeworks thoroughly as they are all from past exam papers. Support is also available through explainer videos contained on the class team's page.



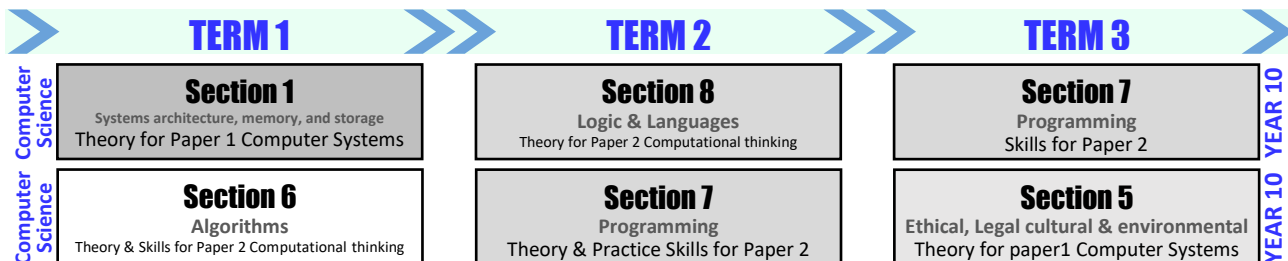
Ad Astra ★

STARS
★ SINCERE ★ THOUGHTFUL ★ ASPIRATIONAL ★ RESILIENT ★ SOLIDARITY ★

Unit 1 – SYTEMS ARCHITECTURE, MEMORY, AND STORAGE (Knowledge)				
1.1 Architecture of the CPU	Date:	😊	😐	😞
CPU Fetch- Decode -Execute Arithmetic Logic Unit Cache Registers Control Unit Von Neumann Cores Memory Address Register Memory Data Register Program Counter Accumulator Von Neumann				
1.2 CPU performance	Date:	😊	😐	😞
Cores Clock speed GHZ Overclocking Embedded system				
1.3 Memory	Date:	😊	😐	😞
Primary Secondary Virtual Memory ROM RAM				
1.4 Secondary Storage	Date:	😊	😐	😞
Internal External Optical Magnetic Solid state Flash Durability reliability Cost Portability Capacity Speed				

Revision, Test and Closing the Gap for topics covered so far	
TEST RESULT :	Target Grade :
Mark :	Percentage :
Grade :	On target?

FUTURE LEARNING :



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