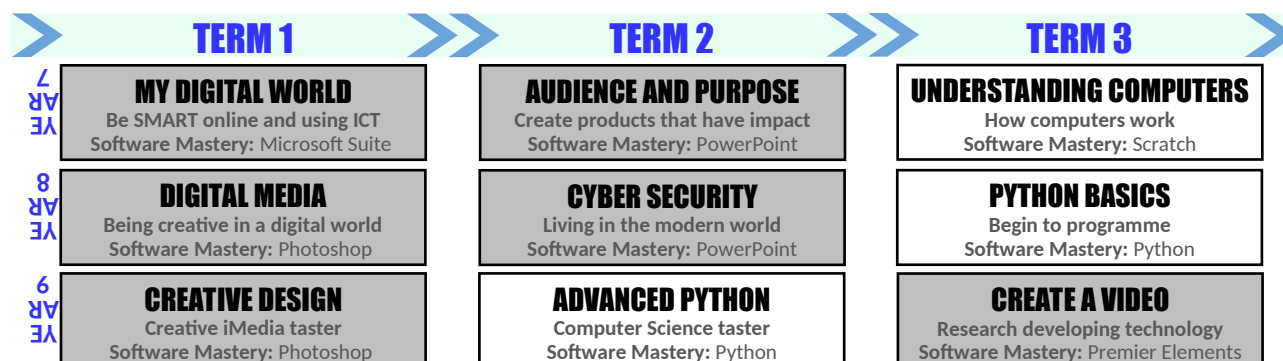


# LEARNING JOURNEY GCSE Computer Science

## YEAR 11 – Computer Science: TERM 1

### J277/01 – COMPUTER SYSTEMS

**PRIOR LEARNING** (from Key Stage 3):



### Aim of the Unit

In this unit students will learn how to develop an understanding of the threats posed to networks and systems. Students will learn about different types of threats and measure that can be taken to reduced risk to IT systems. Students will also learn about IT systems software that helps systems function.

### Topics to be covered:

- Threats
- Prevention
- System software

### 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 homework's thoroughly as they are all from past exam papers. Support is also available through explainer videos contained on the class team's page.



Unit 4 - NETWORK SECURITY AND SYSTEMS SOFTWARE (Knowledge)				
<b>4.1 Network threats</b>	Date:	I	K	L
Malware   Viruses   Worms   Trojans   Social engineering   Phishing   Human error   blagging   Security training   Hacking   Brute force attack   Denial of Service (DoS) attack   Shouldering   Man in the middle attack   SQL injection   access levels				
<b>4.2 Identifying &amp; preventing vulnerabilities</b>	Date:	I	K	L
Penetration Testing   External Penetration Testing   Internal Penetration Testing   Anti malware   Firewall   Password protection   Access levels   Encryption   Physical Security				
<b>4.3 Operating systems</b>	Date:	I	K	L
User interface   Memory management   Peripheral management   User management   File management   WIMP   Command Line   GUI   Multi-tasking   Buffering   Buffer				
<b>4.4 Utility Software</b>	Date:	I	K	L
Defragmentation   Encryption   disk defragmenter   Compression   Lossy   Lossless   Plaintext   ciphertext				

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

**FUTURE LEARNING :**

