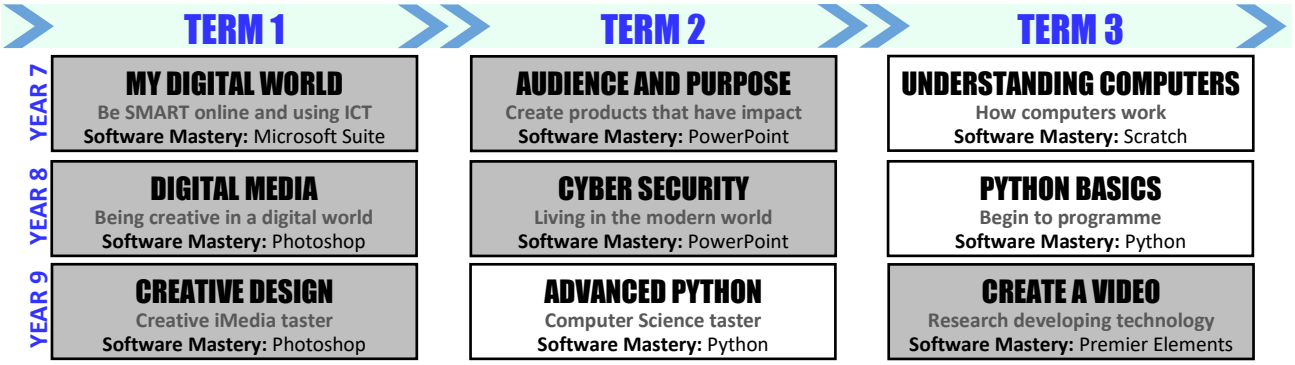
LEARNING JOURNEY GCSE Computer Science
YEAR 10 – Computer Science: TERM 1
J277/02 – PROGRAMMING

PRIOR LEARNING (from Key Stage 3):



Aim of the Unit

In this unit students will learn how to develop an understanding of programming. Students will learn how to create programs using python. Students will also learn how to develop program constructs and skills in using loops, lists, reading and writing to files.

Topics to be covered:

- Sequence and Selection
- Iteration
- Arrays
- Procedures and functions
- Records and files

Assessment Procedure

The topics covered in this unit, will help prepare students for some of the theory needed for Paper 2. 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 7 – PROGRAMMING (Knowledge & Skills)				
7.1 Programming fundamentals	Date:	☺	😐	☹
Variables | Identifier | Data type| Integer | Real/Float | Char/Character | String | Boolean |Assignment | Constants | Input |Output | Arithmetic Operators | Comparison operators | MOD | DIV | Casting | Concatenation | String Manipulation | ASC /Ord - CHR |				
7.2 Sequence and Selection	Date:	☺	😐	☹
Sequence | Selection | Logical operators | NOT | OR | AND |Boolean Expressions |				
7.3 Iteration	Date:	☺	😐	☹
FOR | While | End While | Do …Until | Nested Loops |				
7.4 Arrays	Date:	☺	😐	☹
Array | 1 -dimensional | Index Subscript | Assign | 2 – dimensional				
7.5 Procedures and functions	Date:	☺	😐	☹
Procedure | Function | Parameters | randint | Local variables | Global variables | Subroutines | Decomposing | Tested subroutine library | Maintenance				
7.6 Records and Files	Date:	☺	😐	☹
Data structure | File | SQL | Comma- separated value |				

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

FUTURE LEARNING: