Holy Family Catholic High School

Subject	Year	Term
Computer Science	**10 and 11**	**Constant**

Topic
Programming Fundamentals

Content - Intent

Prior Learning (Topic): Algorithms

Python
Basic syntax of Python. Students will learn how to type in code to manipulate strings, output text, process data, store the result of processing in a file. How to sequence a set of instructions into a coherent program that takes input, processes and output.

Students will learn how to write and structure program code to carry out a variety of different tasks. Students will learn about the main programming constructs (Sequence, Selection and Iteration) and how to use these to build efficient and robust programs.

Future Learning: Networks, Programming, Algorithms

What Knowledge and Skills will be Taught (Implementation)	How will your understanding be assessed and recorded (Impact)
The use of variables, constants, operators, inputs, outputs. The use of Sequence, Selection and Iteration when create code.	A series of problems from past exam papers, attempted in class and marked in class using peer assessment. Coding questions and solutions.
The use of data types and the different types of data used in programming. Integer, Real, Boolean, Character and String. The use of basic string manipulation and file handling. How are arrays used and how to read 1D and 2D arrays.	A series of problems from past exam papers, attempted in class and marked in class using peer assessment. Coding questions and solutions.

How can parents help at home?

Parents can help by ensuring revision and homework is completed.

Helpful further reading and discussion (Including reading and Vocabulary List)

Reading	Vocabulary List	
CGP Computer Science revision book GCSE pod Smart Revise Computer Science UK Teach ICT ISAAC Computing YouTube – Craig 'n' Dave	Integer Real Boolean Character and string Casting Arrays Concatenation	Functions Procedures Variables Constants