

What are the aims and intentions of this curriculum?

Students are to understand how micro:bits work and are to learn how to programme them using blocks of code. Students are then to cover a topic on understanding computer systems and how they work, thinking about the range of components that work together. Students are then to cover a topic on Python programming to introduce a text based programming language to develop their problem solving skills.

Term	Topics	Knowledge covered	Skills developed	Assessment
Autumn 1	Introduction to the micro:bit Programming the micro:bit Micro:bit challenges	What is the Micro:bit, why are they used? What can they be used for?	Identify the different parts of a micro:bit and be able to program them to do different things	Micro:bit booklet Micro:bit learning log
Autumn 2	Micro:bit challenges Design their own micro:bit program Create their own micro:bit program Evaluate their own micro:bit program	Programming a micro:bit and be able to design, create and evaluate their own code.	Be able to complete a range of micro:bit programs. Be able to design, create and evaluate their own code.	Micro:bit booklet Micro:bit challenges learning log Micro:bit design work Micro:bit program Micro:bit evaluation Micro:bit written assessment
Spring 1	Hardware and software Input - process - output Units of storage CPU and main memory Binary Network introduction	Different hardware and software that is used in a computer system. What is an input-process-output of a computer system? Different types of units of storage. The cpu and the main memory on a computer. Binary and binary addition and an introduction to networks.	Be able to understand the different topics that make up a computer system.	Work in booklet
Spring 2	Network risks Network protection Computer legislation	What risks pose networks? How do we protect networks against those risks? Different legislation that is there to protect computer systems.	Be able to identify the different risks that pose a threat to networks. Be able to identify the different methods of protecting networks from those threats. Understand the different computer legislation that is there to protect people and businesses from threats.	Network work Legislation work Written assessment on understanding computer systems work
Summer 1	Introduction to Python Python Programming	Introduction to python programming language. Be able to use python to create simple programs.	Be able to use Python to create simple programs.	Python programs
Summer 2	Python Programming	Use Python to create simple programs.	Be able to use Python to create simple programs.	Written assessment on Python programming