

ABC Links to literacy
 We develop Computer science literacy through reading Computer science literature aloud, and applying knowledge to extended writing questions. We discuss key concepts with our peers to help embed key terms.

AUTUMN - 2
 Topic name: **Binary Logic**
 Why study the topic?
 Knowing that inside a computer, the CPU is made up of millions of tiny switches that can only be in one of two states, either 'ON' or 'OFF'. Understanding different types of Logic gates and the truth tables

SPRING - 2
 Topic name: **Introduction to programming**
 Why study this topic?
 Understanding computational thinking, abstraction.
 Writing algorithms - flowcharts, pseudocode.
 Understanding programming constructs - sequencing, selection, iteration

SUMMER - 2
 Topic name: **Programming Project**
 Why study this topic?
 Creating a basic computer quiz - simplified version of Music quiz. Analysing and solving a problem using algorithms - flowchart, pseudocode. Testing and evaluating the solution.

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Subject Intent statement
"Our intent is to foster the mind of digital natives so that they can become well equipped in computing knowledge in order to play a significant role in a modern and dynamic world of technological innovations and big data. In line with our Academy intent, we ensure that all students studying Computer Science are able to access the curriculum we offer. To achieve this, we propose computing lessons which cater for differing learning needs by using a multi-sensory teaching approach.

SPRING - 1
 Topic name: **Representation of Data**
 Why study this topic?
 Defining the terms bit, nibble, byte, etc...Converting binary, denary, hexadecimal and vice versa. Performing binary division, multiplication, subtraction, additions and explaining what overflow is.

AUTUMN - 1
 Topic name: **Computer Systems**
 Why study the topic?
 Understanding the function of the main internal parts of basic computer architecture. The difference between embedded and general purpose computers. The concept behind the fetch-execute cycle. Knowing that there is a range of operating systems and application software for the same hardware.

123 Links to Numeracy
 In Computer Science, we use mathematics to organize and analyse data in tables and graphs, also to make spreadsheets to see and make sense of patterns in the data.

SUMMER - 1
 Topic name: **Python Fundamental**
 Why study this topic?
 Programming with a textual language. Designing basic programs. Understanding basic Python functions and the difference between a variable and list . Performing casting - converting one data type to another.

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