



# Curriculum Overview

**Subject: Computing**

**Year: 8**

**Rationale:** Pupils will develop their skills and understanding of a range of topics that cover Computer Science, Digital Literacy and Information Technology. This will provide the foundation of the skills required for Key Stage 4 both academic and vocational pathways.

Units of Work	
1	Heroes of Computing
2	Microbits and MicroPython
3	Hardware
4	CPU & Logic
5	Networks & E-Safety
6	Digital Graphics

**SMSC/British Values/Careers:**

- Highlight links to careers where appropriate
- Discussion tasks to promote cooperation and appreciation for the views of others.
- Group work activities.

### Key Knowledge development:

- Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Pupils can analyse problems in computational terms, and will have experience of writing computer programs in Python to solve problems
- Pupils will understand how the Internet works including the risks and dangers along with the benefits it can bring.
- Pupils will gain an understanding of Legislation relevant to Computing
- Pupils will understand How a computer works and the roles of the Computing Component's.
- Pupils will develop the creative side of Information Technology and be able to recognise the correct tools for different problems.

### Key Skills development:

- Continue developing Basic IT Skills in MS Office and the Internet.
- Pupils will explore physical computing with Microbits and continue to extend their skills in Python.
- Pupils will develop Digital Graphics skills in Photoplus.

### Literacy/Numeracy:

- Subject specific key words
- Command words

### Assessment

Each topic will have a Pre-Assessment Quiz to gauge existing Knowledge.

Each topic has an end of topic test.

Each Topic will have one piece of assessed work.

Homework to support

### Curriculum enrichment:

#### Potential ideas

Cyber Security Trip

Cyber Day

Year 8 Club

