Intent: What are we trying to achieve?

Subject Vision - Computing

To to equip students with the computational thinking skills to solve problems and write algorithms. The core of computing is computer science, in which pupils will be taught the principles of information and computation, how digitials systems work and how to put this knowledge to use via programming. Programming takes the forms of both block based languages and text based programming.

Curious Learners

In Computing our students will be challenged to explore how computers work.

They will have to solve problems by applying programming skills independently. Furthermore they will explore the merits of different solutions through class/group discussion.

Respectful Citizens

In Computing we have high expectations of attitudes and behaviour and expect students to use the equipment safely and responsibly.

Students will gain better understanding and respect of Computing by exploring the origins of the modern technology that they use daily.

By exploring and writing algorithms they will gain a respect for how algorithms are used in our daily lives and beyond.

Aspiration Individuals

In Computing teachers have high expectations of all students, who will have the opportunity to be successful and thrive.

When programming, students are tasked with developing resilience and independence when fixing errors. Students are challenged with creating 'the best' and most efficient solution to a problem.

Programming workshops at KS4 also allow opportunities for students to develop skills beyond GCSE.

Motivated Achievers

The sequence of learning allows students to see their progression from flowcharts to block based programming, then to text based programming in Python. The ability to create working solutions to problems is highly rewarding and creative.

Students will be motivated by understanding that the skills they learn such as decomposition are transferable both academically and in every aspect of their life.

The Key concepts that run through Computing:

- Understand and apply the fundamental principles of computer science, including abstraction,decomposition, logic, algorithms and data representation.
- Analyse and solve problems in computational terms by programming in both block based languages and Python using the core programming principles of the sequence, selection and looping.
- Understand computer and IT technologies including hardware and software components.
- To be able to collect data and create digital artefacts.