



Quality of Education
Curriculum Intent Statement
Subject: Computing and ICT



CURRICULUM VISION

The aims of the Mathematics and Computing Faculty are agreed by all members of the Faculty. We strive on a daily basis to fulfil our aims. In the Computing Department we believe that every student should be computer literate as computers have a growing part to play in everyday work and life. Our curriculum map reflects our high expectations for every child. Every student is entitled to master the basic skills and have grounding in computational thinking and programming, by receiving high quality lessons, the appropriate support and challenge that specifically meets their needs

CURRICULUM RATIONALE

Our intent is for our curriculum will have four key principles:

1. Deep Understanding

Our practice embeds the importance of deep understanding of the basic computer programmes of word, excel, power point and publisher, through problem solving tasks. Our aim is to develop understanding of the problem solving process along-side these programmes. This means that students will have a depth of understanding and are confident demonstrating their knowledge and learning via these programmes.

2. Computational thinking

We believe that it is essential for students to develop computational thinking inside and out of the classroom in order to fully master programming and solve problems in the computer world. We want students to use computational thinking skills not just play computer games. We believe that during their learning experience students should; explore, wonder, question, conjecture, experiment, challenge themselves and make theories in order to guide their own journey and solve problems.

3. Computer Language

We believe that students should be encouraged to use technical vocabulary throughout their learning to deepen their understanding of computers and the programmes and algorithms that they run. The way students speak and write about computers and programming will have a positive impact on their use of computers in the work place. We, therefore, use a carefully sequenced, structured approach to introducing and reinforcing computational vocabulary throughout lessons

4. Being Systematic

We believe that it is important for students to develop a systematic approach to their work and problem solving solutions. Students can learn from their mistakes so that they become confident basic programmers, checking that the code that they input completes the task and/or solves the problem. In this way students adopt a systematic, resilient, patient approach to problem solving. They gain a competent understanding of programming increasing their confidence. Throughout these four key principles, problem solving is the back bone. By structuring our curriculum working with programmes and then developing programming skills, the students have longer to focus on their use of programmes and will then appreciate the importance of programming with varying degrees of difficulty. Our aim is to create the optimal conditions for students to learn through problem solving, develop resilience and to learn to solve problems by developing lifelong transferable skills. Throughout our curriculum we also aim to ensure our students gain detailed knowledge of computers and appreciate the advantages and disadvantages of computers in the modern world. This experience may well lead them into further courses to gain qualifications in Computer Science, for example.

