The Power of Computer Science

Learning about computer science involves:

Problem Solving

Creativity

ICT Skills

Computer Science provides a framework for students to develop problem solving skills. They learn to abstract and decompose a problem then produce a solution through investigation. This encourages perseverance and overcomes fear of failure

Students also gain an understanding of how hardware within a computer functions, demystifying the magic box idea of the pc.

ICT skills are important for students to function in todays society and how to keep safe online is vitally important if they are to function in the virtual world.

Curriculum Features

The KS3 curriculum is designed to ensure students studying GCSE Computer Science have a grounding in the fundamental concepts covered at KS4. Over the 3 years, students learn to program in 3 languages, starting with block-based languages before progressing to High-Level Languages. The development of programming skills is also built into physical Computing tasks using the Microbit.

The curriculum is based around programming and the constructs used when building programs. Sequence Selection Iteration, Variables and Data Structures need to be embedded at every opportunity.

ICT skills are delivered directly through units of work based around spreadsheet and database software also indirectly through the presentation of work at the end of each unit. Online safety is covered throughout the 2 years