



Purpose:

To equip pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Core Learning*:

- To code
- To connect
- To communicate
- To collect

Characteristics of a Programmer:

- Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data effectively.

Using and Applying English and Maths within Computing:

English:

- Demonstration of skills taught within focused English session;
- Green screening, podcasts, animation, instructions, digital photography, web building, desk top publishing.

Maths:

- Demonstration of skills taught within focused Maths session:
- Measurement, geometry – properties of shape, geometry – position and direction, statistics, ratio and proportion, algebra.

Inclusion:

Teachers should set high expectations for every pupil. They should plan stretching work for pupils whose attainment is significantly above the expected standard. They have an even greater obligation to plan lessons for pupils who have low levels of prior attainment or come from disadvantaged backgrounds. Teachers must also take into account the needs of pupils whose first language is not English,