Computing Curriculum

Overview

Computers are an integral part of everyday life. For most of us technology is now essential in both the workplace and at home. Teaching our children to be creative with technology supports the skills needed for lifelong learning and prepares them for a world that is changing at a rapid pace.

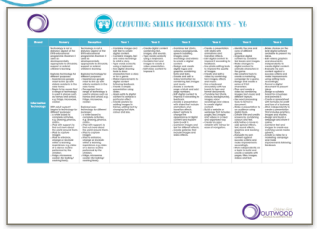
Purpose of Study (PoS)

A high-quality computing education equips 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.

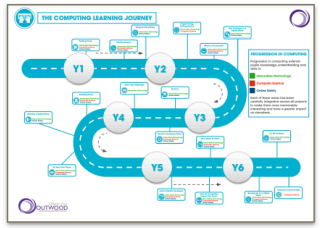
Online Safety

As young people are growing up in a digital world it is imperative that they learn the benefits that technology has to offer and develop a critical awareness of their own and other's online behaviour. They must develop effective strategies for keeping safe and making a positive contribution online. The Computing Curriculum aims to support young people to be safe, healthy and succeed online. The projects fully cover eight different aspects of online safety education for pupils in key stages 1 and 2. The skills cover how to ensure pupils understand how to stay safe and behave online. The objectives promote the development of safe and appropriate long-term behaviours, and supports educators in shaping the culture within their setting and beyond.

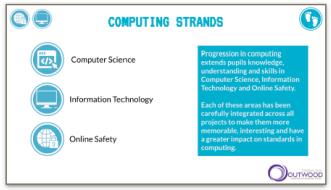
LEARNING THE COMPUTING CURRICULUM



Skills Progression Year 1 - Year 6



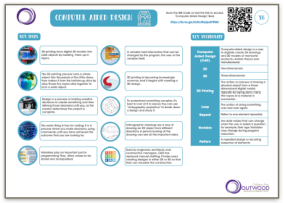
Learning Journey Year 1 - Year 6



Strands

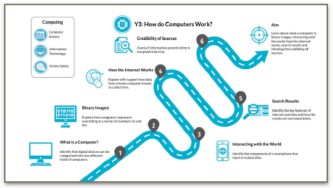
PROGRESSION (KNOWLEDGE ENGAGED)

Key Vocabulary



Knowledge Organisers with Quiz

Key Ideas, Learning Outcomes, with Age Related and Working at Depth Expectations



Learning Journey (Big Picture & Detailed Knowledge)

REPEAT EXPOSURE TO VOCABULARY & KNOWLEDGE → **Long Term Memory**

- Homework
- Other Subjects
- Working Walls
- Knowledge Organisers
- New Topics

CREATE. INSPIRE.

Information Technology

Creating digital content across the curriculum has many practical possibilities. Throughout each of the projects the pupils will have opportunities to improve their word processing skills, design games, work with video, create graphics, write computer programs, create digital books, work with digital photographs, use augmented reality, work with data, build web pages, websites and apps and use various presentation software to demonstrate understanding across the curriculum.

Computer Science

Computer science aims to cover two distinct, but related aspects. There's a focus on computer science itself (the ideas and principles that underpin how digital technology works) and this sits alongside the practical experience of programming. The 'programming' and 'how digital technology works' projects provide a clear sense of progression and demonstrate what has been learned in previous years, what will be learned in the current project and what will be covered next. The projects ensure that the content is balanced, stimulating and creative.

CREATE. INSPIRE.