

Curriculum Intent

Technology plays a major role in everyday life and will be at the centre of a range of careers in the future. At Monksdown, we want technology to be an integral part of school life. We intend to teach our children the core skills of Computer Science not only to prepare them to study this valuable subject at Key Stage 3 and beyond but because these skills support their learning across the curriculum; promoting logic, resilience and the ability to analyse and evaluate. In addition to these core skills, it is our aim that Monksdown children are flexible and confident in their use of technology. That it enhances their learning in creative and useful ways in preparation for becoming digital citizens. It is our aim to ensure that they are able to be masters not slaves to the technology that surrounds them.

Curriculum Implementation

In the Foundation Stage children will primarily learn through play, developing their understanding of the various uses of technology at home and in school. Use of iPads and desktop computers (keyboard and mouse skills) will support their physical development of fine motor skills. The use of technology in Foundation Stage will support children's learning throughout the curriculum, children will use iPad apps to support their early literacy and mathematics skills and to record children's developing communication and language.

In KS1 and KS2, computer science is taught discretely so that the core skills are built upon each year.

At Key Stage 1 children are taught to;

- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Create and debug simple programs
- Use logical reasoning to predict the behaviour of simple programs

At Key Stage 2 are taught to;

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration

In addition to this the following skills are woven through our topic based learning.

At KS1 children are taught to:

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Recognise common uses of information technology beyond school

At KS2 children are taught to:

- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

This means that children are learning how to collect, analyse, evaluate and present data and information with a clear purpose. At Monksdown, our Computing curriculum promotes our school ethos, as an arts school, of creativity and performance which in term develops our children's oracy and writing skills. Publishing and sharing their work in a variety of digital ways ensure that children are writing for a real purpose and a real audience, an audience who can give meaningful feedback on their writing.

Online safety is taught constantly throughout the whole curriculum and more discretely through computer science lessons. This is supported by regular safety updates shared with parents and carers. We aim to support families and children to have the skills to be discerning users of the internet (and when they are ready, social media) with all of the positive benefits that it offers while keeping themselves safe and promoting positive mental health.

Curriculum Impact

The impact of our approach to Computing at Monksdown means that our children are confident and flexible users of technology. Their experience of sharing their work regularly means they are self-assured communicators. They are able to use technology to enhance their learning and to present their ideas to the world, a skill which will prepare them for a world of advancing technology and changing employment opportunities.