

Computing: The Wray Common Way!

At Wray Common we provide children with a plethora of opportunities so that they can develop diverse skills that can be extended to enhance their experience of the wider 'computing' world. The focus for our computing curriculum is on computational thinking and creativity, as well as providing children with opportunities for creative work in programming and digital media.

The computing curriculum is made up of three aspects: **computer science**, **information technology** and **digital literacy**. The core of computing is **computer science**, in which children are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Through **information technology**, children are equipped to create programs, systems and a range of content by finding things out, exchanging and sharing information and reviewing, modifying and evaluating work. Computing at Wray Common also ensures that children become digital literate so that they are able to use and express themselves and develop their ideas safely through information technology at a level suitable for the future workplace and as active participants in a digital world. They will leave us knowing how computers, software, the internet, the web and search engines work and have a critical understanding of the impact of technology on their lives and society as a whole.

We aim to teach the three aspects of the computing curriculum through taught computing lessons and to provide opportunities for children to draw on prior learning, apply and consolidate their capability, across all curriculum contexts as well as to provide an environment where access to computing resources is natural.

In Reception, children explore everyday technology, taking photos using iPads or cameras and begin to learn about programming through beebots.

In Year 1 and 2, children use tablets and laptops to begin to present ideas through pictures, text and sound and delve into programming, spotting bugs and fixing algorithms.



In Year 3 and 4, children are expected to make decisions about how to present their information more effectively, using different formats and programmes for different purposes. They can write algorithms, testing them and recognising when they need to debug them.

In Year 5 and 6, children use and combine appropriate technology tools to create effects that will impact on others, as well as understanding audience and purpose when presenting their work. They support others by reviewing and suggesting improvements to their work. They encounter more challenging programming and are expected to design and write a program to accomplish a specific goal, explaining the steps involved and evaluating its effectiveness and efficiency. As well as this, in Year 6, children are given the opportunity to become 'Digital Leaders'. These children champion computing and support and challenge

teachers and children in computing lessons.



Throughout computing learning and as part of the PSHE curriculum, children are also taught 'Online Safety'. Children in KS1 are taught about the importance of privacy and security with personal information and about online relationships. They are taught what to do if something they see online upsets or worries them. They begin to learn about the reliability of information found online and begin to recognise that information online belongs to someone else. Throughout KS2, children learn how to create strong passwords, how to change privacy settings and how many free apps may read and share private information. Children also learn how to make positive contributions and be part of online communities and know that other people's feelings can be hurt by what is said or written online, knowing that their online behaviour can affect others. They can explain the risks of communicating with someone online and that "knowing" someone online is different to knowing someone in real life. Screen time and the negative effects are discussed and children learn how to block abusive users and report online bullying. Children are challenged to think about their digital footprint and children in upper KS2 discuss why people might present themselves differently on social media by editing photos. We teach children to evaluate the digital content they read and what is meant by the term 'hoax'. Finally, children are taught about copyright and can explain why they must consider who owns the information they find before reusing it.