



Key Computing Concepts

Pupils learn Computing through a concept-based curriculum. Not only does this allow them to gain a deeper understanding beyond the topic facts and vocabulary, but concepts also allow pupils to make connections between their learning, enabling them to make sense of the facts and most importantly the world around them.

As part of Oldfield's Computing curriculum, we involve the use of specific key questions which focus upon factual, conceptual and debatable content. Concepts are reinforced within each year and in each subsequent year to ensure children have a clear understanding of them.

The concepts we refer to are listed below:

Concept	Why learn about this concept?	Year groups
To connect & collaborate	<p>This concept involves developing an understanding of how to safely connect with others. Due to the advances in technology, it is imperative that children know how to always keep themselves safe. Children will be taught how to keep themselves safe online throughout their time at Oldfield Primary School. It will be reinforced in all curriculum subjects when computers or iPads are used and in assemblies and through Safer Internet Days.</p> <p>As children have more access to the internet through the use of tablets, laptops and watches, it is vital that they understand and can choose websites and games that are appropriate for their age; the children will need to understand why and where to find appropriate games and websites.</p> <p>We also believe that due to changes in children's mental health and behaviour, children need to learn the importance of not spending too much time on computers or in front of screens.</p> <p>In addition, children will learn about online bullying and how to behave when accessing social media as a tool to communicate; exploring the benefits as well as how to stay safe. We strive to prepare the children to be competent in explaining the consequences of different actions in relation to keeping safe online. Pupils should leave our school with a good understanding of the need to act within the law and with moral and ethical integrity; this knowledge is vital when thinking about their daily lives and transition into Key Stage 3.</p> <p>In Key Stage 1 the children will also be introduced to what technology is and where it can be found. Throughout Key Stage 2, the children will build on this knowledge to explore parts of a computer and the internet and how it works.</p>	Y1 -6

<p>To communicate</p>	<p>This concept involves using apps to communicate ideas. Being digitally literate is vital in the 21st century and the knowledge and skills taught in Computing can be applied using different software and/or technology. Everything that the children will create will be in direct response and consideration of the audience they are communicating to.</p> <p>A good understanding of how reliable the information they find is vital when using the internet. Pupils will explore fake news, websites and how social media cannot always be taken as reliable; whilst recognising the benefits of information being readily available on the internet, this is an ever-growing problem that children need to be able to recognize and know how to deal with.</p> <p>Children will also learn how to check who owns photographs, text and clip art and apply their knowledge of copyright.</p> <p>Pupils will leave Oldfield Primary being able to tell you why they have used particular tools and how they have decided to share their work. Everything that they create and use will be evaluated for its quality and reliability. This knowledge is vital to ensure they become computer literate, preparing them for Key Stage 3 and their adult life using technology.</p>	<p>Y1 -6</p>
<p>To collect</p>	<p>This concept involves developing an understanding of databases and their uses. The children need to understand how to collect, understand and evaluate data, to prepare them for their daily lives. Technology is all around us and we would like to help pupils understand this. Throughout their time at Oldfield Primary, the children will become more independent to select tools to collect data; they will confidently interpret data and check it for accuracy and plausibility and apply this to real life situations.</p>	<p>Y1 -6</p>
<p>To code</p>	<p>This concept involves developing an understanding of instructions, logic and sequences. Children will be taught coding throughout their time at Oldfield Primary due to the ever-changing digital world. They will quickly learn that lots of things in our daily lives require programming and code to work; from programming a washing machine at home, to using 'Beebots', Scratch and HTML in school, for example. It is vital that the children understand how things work, using logical thinking and they apply this knowledge across the curriculum with more confidence and independence as they progress from Year 1 to Year 6.</p>	<p>Y1-6</p>