Moor First School
Computing Curriculum

'Together we unlock potential and learn for life'

Intent

When planning and teaching computing at Moor First School, we believe that it is an essential part of the curriculum for all children, through an inclusive approach. It is a subject, which not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects.

Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will actually equip them for the rest of their life. Computers and technology are such a part of everyday life that our children would be at a disadvantage would they not be exposed to a thorough and robust Computing curriculum. It is our intent that the skills children learn in Computing are revisited and embed at the start of every topic to ensure knowledge is fully secure before learning new knowledge.

Furthermore, at the forefront of our curriculum is E-Safety. The ever adapting world of technology can expose children to many areas of risk. E-Safety is a vital part of our curriculum and every lesson taught will be underpinned by this term. We will ensure that each child has a clear understanding of how to stay safe online and which procedures they should follow to protect themselves whilst using technology. Through effective teaching, research and studied pedagogy, pupils at Moor First are able to develop the knowledge and skills to prepare them for the rest of their lives.

Implementation

At Moor First School, we teach computing using the aims and objectives from the National Curriculum. In the Early Years Foundation stage, children have access to a range of devices, remote controlled toys and resources so that they can explore simple technologies independently and use them in their learning and play. Children across school are encouraged to use technology where appropriate to support their learning in all subjects and to share their work on relevant platforms.

At Moor First, all classes have allocated weekly time with laptops and Ipads. One hour for computing lesson per week but also further hours for use across other lessons. Opportunities are provided for children to take part in lunchtime clubs that embody technology are offered during the school year. All children take part in Safer Internet and E-Safety days. Parents/staff and governors are continually updated with E-safety documentation and signposted to relevant training opportunities on an

annual basis. All parents are invited to complete 'acceptable use agreements' with their children and assemblies/classroom displays regularly reinforce these rules.

In Key Stage 1, the children learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. They are taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. They are shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. They are taught to use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

In Key Stage 2, the children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. They use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs. Children are taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. Children select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals. They use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Each of these computing skills are taught through exciting half termly units from 'Teach Computing' to ensure classes are exposed to full coverage but are not repeating topics when a child remain in the same class for 2 years. In all classes, children use the internet to research and use apps linked to age related learning objectives. E-Safety is delivered using 'ProjectEVOLVE'. In addition, E-safety also shines through in many other areas of the curriculum. For example, being intertwined in our weekly PSHE sessions through explicit examples or related content.

At the start of all lessons, children will complete a memory recall task to ensure that all children have achieved the necessary skills to allow them to move forward and learn new skills. It is imperative that all children have the understanding and opportunity to embed skills previously taught to allow them to make the best progress possible.

Senior leadership teams and school governors have oversight of our school aims, policies, actions plans and financing for this subject.

Impact

Children at Moor First School will be digitally literate and able to join the rest of the world on its digital platform.

- Children will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely both at home and in school.

- Children understand the consequences of using the internet, their online identity and that they are also aware of how to keep themselves safe online.

- Children develop problem-solving, logical thinking and self-evaluation.

- Computing embeds cross-curricular learning opportunities and enhances learning.

- Children can communicate effectively in a range of ways using technology.

- Children can seek help online and with safe adults – cyber bullying etc.

- Children can identify fake news and validity of online research.

- British values- linked to computing.

- Children understand about computer addiction and use technology in a way that promotes positive mental and physical wellbeing.

- Parents have the tools to keep their child safe online.

- Future action plans are robust and well financed in line with the school development.
- Increased inspiration for writing across the whole school
- Increased motivation for all learning through VAK learning styles.
- Children will become competent computer users.
- Children will become highly skilled computer users.
- Children will be able to discuss what they have learnt last week, last month, last year.