

Computing Curriculum Statement 2021 - 2022

Intent

In line with the 2014 National Curriculum for Computing, our aim is to provide high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. We believe that computing is an essential part of the curriculum; a subject which not only stands alone but also forms an integral part of our curriculum.

Our curriculum will teach children key knowledge about how computers and computer systems work, and how they are designed and programmed. Learners will have the opportunity to gain an understanding of computational systems of all kinds, whether or not they include computers. By the time they leave Alverton, children will have gained key knowledge and skills in the three main areas of the computing curriculum: **Computer Science** (programming and understanding how digital systems work), **Information Technology** (using computer systems to store, retrieve and send information) and **Digital Literacy** (evaluating digital content and using technology safely and respectfully). The objectives within each strand support the development of learning across the key stages, enabling children to participate effectively and safely in the digital world outside Alverton School.

We are making steady progress through a period of transition from a traditional Office / PC based approach delivered through a dedicated IT suite towards embracing mobile technology which offers a more flexible and in-depth coverage of the computing curriculum.

Following Covid-19, we have increased our focus on basic skills and meeting any learning “gaps” as well as having a whole-school priority of children’s mental and physical health and wellbeing.

Implementation

At Alverton School we follow the Knowsley CLC Primary Scheme of Work which is designed for the delivery of the curriculum through the use of mobile technology, specifically iPads.

‘We believe in a curriculum that meets the interests of all learners, with a range of exciting creative activities and open-ended challenges based on the essential requirements of the computing program of study. We also ensure children can build on their understanding, as each new concept and skill is taught with opportunities for children to revisit skills and knowledge as they progress through school.’

‘Each of our activities are organised into a series of hour long computing lessons. We like to think of our activities like a story with a beginning, middle and an end. We encourage teachers to help the children create their own digital learning journals that record their understanding and tell the story of the content they create with technology. These journals and the content the children create can be collated in a pupil portfolio and shared with parents, carers and even social media via tools like Seesaw.’

Knowsley CLC

The children will build their own learning portfolio that develops as they progress through the school with opportunities and set assessment points planned in for children to reflect upon and express feedback and engage in discussion about new concepts. Our curriculum provides a balanced coverage of the computing curriculum where children will have experiences of all three strands in each year group. The subject knowledge imparted becomes increasingly specific and in depth ensuring learning is built upon.

In Key Stage 1, each class has a set of 15 iPads, equipped with the necessary Apps and resources required to fulfil the requirements of the curriculum, during 21/22 the intention is to increase this to 1:1 wherever possible; through the leasing of additional iPads as well as the Parent Purchase scheme. As the children move on to Key Stage 2, the ratio of iPads to children increases to 1:1 in the all classrooms as the iPads are utilised to support teaching and learning in more areas of the curriculum. In the EYFS, with the focus of the curriculum being on Communication and Language, and PSED, technology is not directly taught but is accessed via whole class teaching using interactive whiteboards and own learning opportunities to access activities on IWBs.

Our curriculum is fully inclusive and we ensure all children have the same entitlement to a broad curriculum by making adaptations where needed; this may be through peer to peer support, changes to text type or screen colour, voice recognition/recording features as well as small group work/adult supported tasks. Specific Apps will also be downloaded and used for children with specific additional needs.

Impact

Our curriculum enables teachers to deliver the curriculum in a fun, engaging and high-quality way which supports varied paces of learning and ensures all pupils make good progress. Employing cross-curricular links motivates pupils and supports them to make connections and remember the steps they have been taught. Teachers are able to assess children's knowledge, understanding and skills in Computing by making observations, through conversations with the children during lessons, the children's computing journal and the quality of the digital content they create. Built into the activities are several points where the teacher has the opportunity to assess and take stock of the children's progress, then provide feedback addressing misconceptions and gaps as each unit progresses.

Children have had the opportunity to transport themselves to other countries, and even outer space, using green-screen technology; they have used iMovie to record a film which was shared with Cornwall County Council regarding a key local issue and certain Apps such as Popplet, which provides a clear, visual planning structure for paragraph organisation in different genres, are proving invaluable when planning writing,

Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at Alverton gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.