

## **Computing Curriculum at Stamshaw Infant School**

### **Intent**

Our children are living in a world surrounded by devices, and technology is changing the lives of everyone. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills within the Computing lessons and across other curriculum subjects. Through the study of Computing, our children at Stamshaw Infant School will be able to develop a wide range of fundamental skills, knowledge and understanding that will prepare them for KS2 and equip them for the rest of their lives. Children must be taught in the art form of 'Computational Thinking' in order to provide them with essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

### **Implementation**

At Stamshaw Infant School, computing is taught throughout the school, following our computing progression of skills. In Early Years, computing is planned and taught through adult directed teaching as well as it being part of the continuous provision and utilised to support other areas of the curriculum. All children learn how to use an iPad and how to log on to apps such as Sumdog. They are encouraged to use the iPads effectively and for a clear purpose, for example taking photos and recording superhero films. They learn to give clear instructions to each other orally before tinkering with the Bee-bots and beginning to program simple algorithms. The children will recognise that technology is used in school and at home through discussions and when they go on an ICT spotting walks.

When children enter KS1, they will begin computing within the National Curriculum. This comprises of 3 main parts; digital literacy, information technology and computer science. Knowledge and skills are taught progressively, allowing the children to embed their learning over time. We believe that Computer Science teaches the principles of information and computation. It involves creating and debugging simple programs using code. At Stamshaw Infant School we introduce the language of Computer Science in different contexts and begin with using precise verbal instructions (algorithms), for example, how to get their friend to a certain point across the room or explain how to make a sandwich. We then move on to using the Bee-bots to program in order to get from A to B. Finally, the children create their own programs on Scratch Jnr and other online coding programs. The children will need to 'fix' their games and Bee-bot programmes as they go wrong, 'debugging' their own code. Information Technology is taught both discreetly and used to enhance other areas of the curriculum such as using apps and websites to support Maths and Music. Our children use technology purposefully to create, organise, store, manipulate, retrieve and send digital content. They learn to use the Internet to search for information, use the keyboard to type text, make modifications to their work including changing the font size and colour, and to save and retrieve their work. The children use iPads to access a variety of age appropriate apps, login to their own Seesaw accounts and take their own photos and videos, learning how to manipulate these images. At Stamshaw Infant School we believe that Digital Literacy is the ability to creatively and critically use digital tools and technologies to express, research, communicate, collaborate and share in a safe way. We teach Online Safety as an explicit part of our curriculum through Computing and RSE. Children are taught how to keep safe in this ever changing digital world and the steps to take if problems or worries arise. We discuss issues such as; keeping personal information private, trusting people and sources online, treating others online as

we would in real life, posting private information online, what to do if anything makes children feel uncomfortable online and finding out about our digital footprints. All of our children have access to a bank of laptops and iPads to support their learning. We use Scratch Jnr, Phonics Play, Sumdog and other software packages to aid teaching and learning. We have interactive whiteboards in every classroom and these are used daily to further enable and enhance learning.

### **Impact**

After the implementation of this computing curriculum, children at Stamshaw Infant School will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want on our children is that they understand the consequences of using the Internet and that they are also aware of how to keep themselves safe online.

If you were to walk into computing lessons at Stamshaw Infant School, you would see:

- Proficient users of technology who are able to work both independently and collaboratively.
- Children using computational thinking
- Computing hardware and software being utilised to enhance the learning outcomes of our children, across the curriculum.
- Clear progression in technical skills.
- A learning buzz as children engage in their computing learning.