

# Computing Curriculum Statement



## Intent

At Kensington Avenue Primary School we see Computing as a key to the future. All children are encouraged to interact with Information Technology from the time they start school.

Computers, iPads, Sphero robots, bee-bots, Drones, easi-speak mikes, data loggers and digital cameras are a few of the tools that engage our children and allow them to develop their computational thinking of new skills. Every class has an interactive screen, access to the Internet and a dedicated class computer. The school has a large bank of iPads that can be loaned out to teachers to make other lessons more engaging and interactive. We have Wi-Fi access throughout the building and parts of the school grounds, enabling outside sections of the school to be a 'classroom'.

In addition to computers in the classrooms, the school houses a Computer suite with an Interactive screen, 30 computers and 30 iPads. All pupils have a dedicated computing lesson per week in the Computer suite; the emphasis being on building key skills and confidence.

With an increased focus on Computer programming, we provide children with a structured and progressive curriculum; which allows them to develop their understanding and skill set of computer science. We encourage our children to continue their learning of Computer programming by attending a lunchtime Coding club where they are taught Kodable, Scratch, Python and Hopscotch. Our lunch time computing club is run by the Digital Leaders. Our team of Digital Leaders are a group of inspiring, tech savvy children from our Year 6 classes and they aim to inspire young people to use technology in a positive way.

We have invested in Google Classroom which is a secure learning platform that is used to support teaching and learning both at home and in class. Google Classroom is also used as our remote learning tool in the event of a school or bubble closure. It is accessible online and through any mobile devices with Internet capabilities—including laptops, desktops, iPhones, iPads and Android devices.

We recognise, prioritise and teach the importance of E-safety and being safe online through computing lessons and assemblies. We educate children on possible dangers, and communicate with them on how to keep themselves safe and use technology responsibly.

## Implementation

In line with the new National Curriculum, we have created our own scheme of work for Computing. Children will learn skills across a broad range of areas including Computer Science, Digital Literacy and Information Technology.

Google Classroom is paperless and used in our school to streamline assignments, boost collaboration, and foster communication. Children use Google Classroom at home and in class to complete tasks and homework assigned by their teachers. A variety of tools are included in Google Classroom to support teaching and learning such Google Docs, Google Slides, Google Meet and Google Calendar. It is accessible via the web or the dedicated mobile app. Parents can request Guardian access which sends them a daily summary of their child's activity but they will not gain direct access to a classroom.

In particular, children should achieve the following skills and abilities:

Key stage 1 pupils are taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content

- recognise common uses of information technology beyond school
- 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.

Key stage 2 pupils are taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

### **Impact**

At Kensington Avenue Primary School pupils engage and enjoy their computing lessons making use of our fully equipped computing suite and computers available in the classrooms, as well as the other technology available to them in a range of their other curriculum lessons. The implementation of Google Classroom has improved teachers' future planning and incorporating emerging technologies into the classroom to enable more innovative and engaging teaching methods and learning experiences. Teachers are able to identify misconceptions and knowledge gaps in computing when teaching other curriculum areas whilst supporting varied paces of learning to ensure all pupils make good progress. During periods of unforeseen school closure there will be minimal disruption to children's learning as work will be set online. In the event of a school closure children are expected to access remote learning.

Pupils assess themselves alongside their teachers reflecting on where they have excelled, where they feel they still need more support or practice and deciding upon their next steps. 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. The skills that they learn enable them to become competent and confident with the ever moving technological world around them and ensure they know how to keep themselves safe.