Computing

At Kingsway Primary School we understand the importance of computing in our modern world. Following a Global Pandemic with a reliance on technology, communication and computers, there has never been a more significant time to focus on being computer literate.

We follow an ambitious curriculum that follows the content of the EYFS statutory framework and the National Curriculum. In the early years setting we utilise teaching through Barefoot Computing where pupils begin learning about computational language and the digital world around them. As a school we teach the four strands of computing through the NCCE. Lessons excite and engage pupils through a range of programs, digital devices and tutorials. Within lessons there are opportunities to revisit vocabulary, key skills as well as developing knowledge

We want to ensure that children have an understanding of the types of careers they can achieve in computing. Therefore, we have implemented various careers links into all of our KS2 topics. We encourage all children no matter their gender, race or religion. In our computing lessons we let the children know that they can achieve any role that they want in computing. In our planning, we have identified and pushed the I-Belong programme, which encourages girls into computer science and helps them understand what a career in computing could look like for them.

Intent

At Kingsway Primary School, we intend to provide pupils with a plethora of opportunities to learn about digital literacy. programming, multimedia and data handling. Alongside this we will weave how to stay safe online, whilst carefully planning opportunities to revisit units taught prior to this. Our high quality Computing offering will be delivered through the NCCE. IT will engage and inspire pupils to develop a love of technology and their talent to manipulate devices, whilst building their self-confidence, creativity and sense of achievement. As pupils progress, they should develop a critical engagement with computers, allowing them to problem solve, debug and be mindful of staying safe whilst having an increasing confidence and appreciation for technology and how quickly it evolves

Implementation

At Kingsway Primary School we have a dedicated team of well trained staff that work hard to reach high standards in everything we do. We actively seek opportunities to develop as professionals through carefully selected CPD in order to acquire the most up subject knowledge.

The NCCE curriculum aims to take pupils' prior knowledge into account so that their lessons are sequenced properly and show clear progression. Planning is carefully structured so that pupils are able to revisit concepts year upon year. This helps our learners with their long-term memory. They are also able to apply and consolidate skills within other areas of the curriculum, such as using word processing and presentation skills. At Kingsway Primary we are consistently reviewing our curriculum in order to strengthen the clarity of what we teach, plan, the learning process as well as links to prior learning in order to improve knowledge retention and deepen the learning experience for our pupils.

At Kingsway, we ensure that the teaching of computing is to the highest standard. We are proud that we have had 8 staff members achieve their certificate in teaching primary computing. Staff are fully trained to teach in all areas of computing, including work with micro-bits, crumble controllers and data loggers.

Impact

End Point

EYFS End Point:

By the end of Foundation Stage children have been given the opportunity to explore technology in order to develop a familiarity with equipment and vocabulary. Pupils will get to experience:

- taking a photograph with a camera or tablet
- searching for information on the internet
- playing games on the interactive whiteboard
- exploring an old typewriter or other mechanical toys
- using a Beebot
- watching a video clip
- listening to music

KS1 End Point:

By the end of Key Stage 1, pupils should be 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.

KS2 End Point:

By the end of Key Stage 2 Pupils should be 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.