Computing at Heathfield

Intent

The Computing curriculum at Heathfield is ambitious, broad and balanced fully meeting the expectations of the National Curriculum ensuring that key knowledge is covered. The curriculum is planned to sequence the knowledge and skills the children require from EYFS to Year 6, building on prior learning and developing their skills in understanding how to use technology safely, respectfully and responsibly.

Children at Heathfield are encouraged to form cross curricular links with other subjects such as Maths, Science and Design and Technology by recognising that Computing is a part of many other subjects which helps to develop a more creative and innovative approach to computing.

A variety of purposeful learning opportunities are provided for all children to enrich and enliven the science experience, broaden their horizons and raise aspiration.

We want to equip all children with the tools and skills needed to access, understand and participate in the modern, digital world safely.

Implementation

Each Computing unit follows the same sequence of learning to ensure the coverage of the key elements that form the backbone of the computing curriculum:

Lifelong computing knowledge and skills are developed in Heathfield through the coverage of the Computing pathway which is aligned to the National Curriculum. Children are taught to continually build on prior learning, beginning in EYFS (knowing simple input methods, such as button presses) to Year 6 (using coding skills to build functional programmes) and beyond into secondary education and the workplace.

Ensure that teachers feel supported and confident with teaching the sequence of learning detailed on the pathway by providing targeted and specific CPD.

SEND Provision and differentiation

To ensure all children can access the Computing curriculum, teachers use a range of strategies to support the inclusion of children with SEND. This includes the differentiation of objectives and activities, the use of smaller steps to support progress and the use of tailored resources.

Some computing technology is used to support accessible learning in the classroom for identified children and there are a range of apps in use supporting dyslexia, sensory needs and practise of key skills in spelling and maths. iPads provide a wealth of resources for our children with SEND and they are accessible to all, often enabling children to lead their own learning due to being familiar with such a device from home.

Many aspects of the Computing curriculum suit access by children of all ages and abilities. There is no cap on the children's potential as some children demonstrate their skills are more advanced than others depending on the focus for the learning.

<u>Assessment</u>

Assessment for learning forms an integral part of the teaching of computing, to gauge understanding, address misconceptions, stretch the learning of higher ability pupils and inform next steps. In addition, foundation subjects are formally assessed twice a year to track attainment and evaluate coverage and understanding of objectives. Through monitoring, subject leaders can monitor the impact, gap analysis and extra provision required for each year group or vulnerable group.

Impact
Our children can confidently interact, manipulate and problem solve with technology – whilst always understanding how they can keep themselves safe online. Children can articulate the career opportunities open to them post-school as a result of their computing knowledge.

How the Heathfield Pledge is delivered through Computing

Happy, safe and confident:
- Staying safe online
- Developing new skills
- Developing their skills in Resilience, Reflectiveness, Resourcefulness and Reciprocity

Eager to learn
- Children engage with the modern world in which they live

Aiming high
- Children can produce high-quality work using modern equipment and services

Taking care
- Children realise the importance of their digital footprint
- Staying safe online

Healthy attitudes
- Internet Safety
- Being prepared for future careers
- Being financially aware

Focused on enrichment
- Provides children with experiences to their usual lives

Including everyone
- Understanding the importance that technology has in the lives of people living with disabilities

Environmentally aware

- Understanding the role technology plays in the environment

Living in harmony
- Children realise the importance of their digital footprint
- Children know how to communicate online courteously

Developing global citizens
- Developing communication skills
- Using the internet to its fullest potential
- Connecting with different places and cultures

How does Computing link to other subjects?

Teachers promote how to be safe online and use technology safely. Computing has strong links to almost every subject. These include:

- English – to help understand spelling and grammar knowledge using spelling shed
- Maths – to help understand times table knowledge by using apps such as times table rockstars
- Science – using search engines to conduct research and using microscopes that connect to iPads. Coding linked with electricity
- History – to help understand a period of history by using search engines
- Geography – to help understand where places are in the world using apps such as google and apple maps
- Art –to learn about famous artists by using search engines
- Music- to learn about sound on apps such as garage band
- Design and Technology – to plan, make and evaluate sequences whilst coding
- PSHE – to understand how to stay safe online
- PE – using video technology to film sequences in gymnastics and dance

What can Computing inspire children to be in the future?

Many of the careers our children are likely to have when they are older do not yet exist thanks to the rate in which technology is changing. Computing and the skills associated with the programmes of study will support all future careers in one way or another. The new learning to encourage children with an interest in Computing would enable inventors, designers, computer game developers and music producers of the future. As companies expand, the need for computing experts continues to grow and this could be a very worthwhile career for those who are interested and have a talent with this subject.