



Heathfield Primary School

Computing Policy

***Our Mission Statement:
Learning together, Learning for Life***

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INTRODUCTION

At Heathfield, our curriculum lays out the way we teach our children to achieve our mission statement; *Learning together, learning for life.*

The curriculum consists of all the planned activities and routines that we organise in order to promote learning, confidence and self-esteem. It includes not only the formal requirements of the National Curriculum, but also the range of extra-curricular activities that the school organises in order to enrich the experience of the children. The children at Heathfield are provided with a an inter connected curriculum that promotes meaningful connections between concepts and knowledge (**Heathfield Head**), develops genuine and robust character traits to prepare children for life in the modern world (**Heathfield Heart**) and opportunities for children to use and apply their Head and Heart to answer learning questions (**Heathfield Hands**) resulting in knowledgeable, physically and mentally healthy children that achieve their potential and have a solid foundation to become life-long learners.



RATIONALE

Our school is in full agreement with the values statement included in the introduction to The National Curriculum Handbook for Primary Teachers in England. These are the main values of our school, upon which we have based our curriculum. The Computing curriculum aims to provide:

- An inter connected curriculum that enables our children to make meaningful connections
- Computing specific concepts which enables our children to make links from prior learning
- Building on new learning through reviewing and revisiting prior learning
- a broad, balanced, challenging and enjoyable curriculum for all pupils
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Develop the understanding of how to use computers and digital tools safely and responsibly

We are committed to our mission statement; Learning Together, Learning for Life. In this regard, we want to structure our Computing curriculum in a way that offers the children the knowledge, understanding and skills to become lifelong learners. The curriculum enables children to apply their Computing knowledge and skills to other areas of learning.

LEGISLATION AND GUIDANCE

This policy reflects the requirements of the National Curriculum programmes of study, which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the Special Educational Needs and Disability Code of Practice 2014 and Equality Act 2010, and refers to curriculum-related expectations of governing boards set out in the Department for Education's Governance Handbook.

In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the Early Years Outcomes document.

ROLES AND RESPONSIBILITIES (SUBJECT LEADER)

- Alongside the curriculum lead, provide strategic direction for the subject;
- Evaluate progress made and draw up appropriate action points to develop their subject;
- Support and offer advice to colleagues on issues related to their subject area;
- Monitor pupil progress in that subject area;
- Provide efficient resource management for the subject.

It is the role of the Geography subject leader to keep up to date with developments in their subject, as both national and local level. The curriculum leader and subject leader monitor the way the subject is taught in the school and plan for improvement. This development planning links to whole-school priorities. The Geography subject leader completes a subject SEF then plans actions based on the outcomes from the SEF. They ensure that there is full coverage of the National Curriculum and that there is a clear skills progression. (See subject leader documents for how this is mapped out throughout school).

CURRICULUM INTENT

Our Computing curriculum is designed for children to gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys.

Children use computational thinking and creativity to understand and change the world. The computing curriculum has been designed to create life-enhancing experiences which raise aspirations of our children, families and community and equip them with the cultural capital that they need to succeed.

Children are provided with deeper links with maths, science, and design technology and provides insights into both natural and artificial systems.




The curriculum content ensures that progression is clear and teaching is systematic, allowing children to build on and develop the desired knowledge and skills, as well as transfer key learning to their long term memory. We follow a clear and precise Computer Science path of progression which includes crucial key vocabulary that children build on every year to develop their own understanding and creative thinking skills. Children are exceptionally well prepared, with the knowledge, skills and understanding across the curriculum, so that they can make informed choices about the important things in their future, enabling them to lead happy and rewarding lives.

The four strands of our curriculum (of which Computer Science is one) ensure that a clear focus is also placed on the importance of being a respectful Digital Citizen and understand their rights and responsibilities in this area. Emphasis is directed towards making children's experiences in this area both real world and practical. We encourage discussions and activities that reflect and respond to the quickly changing issues that children are regularly facing through technology. The Digital Literacy and Information Technology strands of our Computing Curriculum ensure that children develop a strong core set of key skills as well as to inspire childrens fascination about technology and the world in which they live in. This will give rise to the drive of aspiration in our children and their families. Armed with this growing understanding of what technology is and how it works, childrens progress through their school life will deepen their understanding of the interaction between physical and computational processes, and of the development and use of technology.

Teachers use the Computing end points and Bolton Council's planning incorporating Purple Mash to inform their planning. Children plan, monitor and evaluate on their learning.

Children review and revisit prior learning, complete retrieval activities and showcase their learning in various ways. Teacher's use all the forms of assessment to make accurate judgements of each child.

At Heathfield Primary, through high quality teaching, we develop the following characteristics of computing to ensure they meet each end point for each phase:

 Heathfield Head		 Heathfield Hands
<p>An excellent knowledge of information and computation, how digital systems work and how to put this knowledge to use through programming.</p> <p>A comprehensive understanding of how to use information technology to create programs, systems and a range of content.</p> <p>An extensive knowledge of how to analyse problems in computational terms, and have repeated practical experience and writing computer programs in order to solve problems.</p> <p>The ability to evaluate and apply information technology.</p> <p>Develop their understanding to apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.</p>	<p>Use computational thinking and creativity to understand and change the world.</p> <p>Are responsible, competent, confident and creative users of informational and communication technology</p> <p>A genuine interest and enthusiasm for their learning.</p>	<p>Able to use and express themselves and develop their ideas through, information and communication technology – at all level suitable for the future workplace and as active participants in a digital world.</p> <p>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they are concerned.</p> <p>Become creators of digital content rather than simply consumers of it.</p> <p>The ability to promote the fundamental British Values to support them in becoming valuable and full rounded members of society.</p>

CURRICULUM IMPLEMENTATION

Our Big Question places a key question at the centre of each term's learning. The computing curriculum is taught using the key computing concepts – there are two banks of concepts (the Computing Subject Leader Document).

Green set: Algorithm, program, sequence, repeat or loop, selection or conditional and variable.

This set of vocabulary enables teachers to teach their focus keyword only. Each year group is allocated one focus keyword to use as the core of their teaching for computer science. This will enable clear progression and deep understanding of all vocabulary related to Computer Science.

Blue set: Computational thinking, decomposing, debug or debug, abstraction, input and output.

This set of vocabulary is taken directly from the National Curriculum and ensures that teachers have a clear understanding of what the key terms mean. Delivery of these words should be the responsibility of all teaching staff and across all year groups.

Clear guidance is given to class teachers on how to deliver the content, specific learning questions, key vocabulary, key knowledge, links to prior knowledge, assessment criteria and enrichment opportunities.

It is implemented by:

- Planning for Computing from as early as First steps. Children are able to turn equipment on and off, make marks on a screen, know information can be retrieved from computers, can talk about ways to be safe when using computers/ipads and begin to use beebots to move in different directions to prepare them for the National Curriculum in Year 1.
- Integrating new knowledge into each small question but also revisiting prior knowledge.
- Key vocabulary is identified. The vocabulary consists of tier 1 (everyday) words, tier 2 (cross-curricular) words and tier 3 (subject specific words). Teachers are expected to use and teach this vocabulary and all children are expected to use the vocabulary banks and word lists.
- Displays support the children's knowledge by using age specific content and vocabulary
- Monitoring children's understanding in different ways (pupil voice, books, learning walks and showcase)
- Trips and visiting experts who will enhance the learning experience;
- Appropriate curriculum themed home learning tasks are set through the Heathfield Homework schedule

IMPACT

Our Computing Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes;
- A showcase of learning for each term which demonstrates progression across the school;
- Outcomes of low stake quizzes and retrieval practice;
- Children's discussions about their learning – Pupil Voice
- Triangulation of monitoring (books, pupil voice, learning walks, on the pulse monitoring)

