

Great Bardfield Primary School Curriculum Statement for:

Computing

Intent:

All pupils at Great Bardfield Primary School have the right to have rich, deep learning experiences that balance all the aspects of computing. With technology playing such a significant role in society today, we believe 'Computational thinking' is a skill, children must be taught if they are to be able to participate effectively and safely in this digital world. A high-quality computing education equips pupils to use creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. At Great Bardfield Primary School, the core of computing is Computer Science in which pupils are introduced to a wide range of technology, including laptops, iPads and interactive whiteboards, allowing them to continually practice and improve the skills they learn.

The computing curriculum aims to create digital citizens who are able to express themselves respectfully and develop their ideas through information and computer technology – at a level suitable for the future workplace and as active participants in a digital world. Online safety is a crucial part of the computing curriculum and we aim to ensure pupils are aware of their digital footprints and their online responsibilities as a digital citizen.

With this in mind, we have established a school curriculum plan for computing as an entitlement for all pupils that:

- Includes content, which is logical, relevant, broad and balanced in terms of the areas of subject content we have selected which reflect the guidance of and in line with National Curriculum.
- Sequences lessons to ensure that pupils can build on previous knowledge and understanding as they tackle more complex and demanding algorithms, data representation and programmes as they progress through the school.
- Builds upon and has continuity with the provision for geography established in the Early Years Foundation Stage and addresses the knowledge and skills expectations of the understanding the world Early Learning Goal;
- Is inclusive in terms of delivering the same curriculum to all our pupils irrespective of specific learning needs or disabilities and adapting where necessary through, for example, in class support, providing different learning environments, alternative learning activities and assessment outcomes.
- Creates a desire to embrace challenging activities, including opportunities to undertake high-quality research across a range of computing topics;
- Develops a sense of curiosity about computer networks and hardware as well as how and why people use technology. c
- Enables pupils to analyse problems in computational term, and have repeated practical experience of writing computer programs in order to solve such problems;
- Enables pupils to evaluate and apply information technology analytically to solve problems;
- Allows pupils to communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.

Implementation:

Subject Leaders are provided with an additional three planning days per year in addition to their PPA, to plan their curriculum. As part of the planning process, teachers need to plan the following:

- A medium-term plan which plans a sequence of lessons that allow our pupils not only to build subject knowledge and understanding but become increasingly adept at computational thinking, specialised vocabulary and their grasp of subject concepts through child led learning.
- A cycle of lessons for each area of computing, which carefully plans for progression and depth allowing for child-centred learning involving interactive and practical opportunities for pupils to work independently, in pairs and also in groups to provide them with sufficient time and space to explore their own ideas.
- Wherever possible, we provide our pupils with a range of technology and scenarios similar to those they would encounter in the future workplace.
- Similarly, we provide varied and adapted ways for pupils to record the outcomes of their work including the use of code.org, common sense media, barefoot and computer programmes such as word and PowerPoint to ensure knowledge becomes embedded.
- The schemes of work for computing build their knowledge and understanding in incremental steps of increasing complexity until they reach the point where they are able to build their own simple programmes and algorithms.
- Our learning and teaching in computing also recognise the importance of e-safety and is supported by the use of drama, varying scenarios, discussion through the use of common-sense media as a platform.
- Mastery and challenge questions for pupils to apply and deepen their learning in a philosophical/open manner;
- Opportunities to showcase their work using a variety of presentation styles.

Impact:

Our Computing Curriculum is high quality, each area of computing forms our programme of learning and teaching and sets clear objectives and outcomes for the pupils in terms of knowledge and understanding and skills acquisition. The schemes of work also suggest a range of ways in which the teacher can assess whether a pupil has achieved these outcomes. We ensure that when assessing our pupils, evidence is drawn from a wide range of sources to inform the process including:

- ♣ Interaction with pupils during discussions and related questioning
- ♣ Day to day observations
- ♣ Practical activities such as model making, role play drama and data representation as well as using code.org to track pupils progress.
- ♣ The outcomes of each area of computing serve to inform the teacher's developing picture of the knowledge and understanding of each pupil and to plan future learning accordingly.
- ♣ At the end of each year we make a summative judgement about the achievement of each pupil against the subject learning goals for computing in that year. At this point we decide upon a 'best fit' judgement as to whether the pupil has achieved and embedded the expected learning goals, exceeded expectations or is still working towards the goals.