



**Bardfield  
Academy**

# **COMPUTING POLICY**

Reviewed June 2018

## **Rationale**

At Bardfield Academy we believe that a high quality Computing education equips and enables pupils to use computational thinking and creativity, which helps them understand and change the world. Computing makes deep links with Mathematics, Science, and Design and Technology, and provides insights into both natural and artificial systems. The core of Computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

By providing opportunities within the curriculum to build on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

(The New National Curriculum in England: 2013)

## **Aims**

At Bardfield Academy we aim to produce learners who:

- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- Can analyse problems in computational terms, and have repeated practical experience writing computer programs in order to solve such problems.
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Are responsible, competent, confident and creative users of information and communication technology.

We aim to achieve this by:

- Enabling children to use different technologies with purpose and enjoyment.
- Meeting the requirements of the new National Curriculum (2013) and enabling all children to reach the highest standards of achievement.
- Enabling all children to develop the necessary skills to exploit a wide range of technological applications such as word processing, databases, spreadsheets, graphics software, multimedia presentations and tools such as digital cameras etc.
- Enabling all children to become autonomous users of technology.
- Enabling children to evaluate the limitations and benefits of computer technology and its impact on society.
- Creating an atmosphere and levels of technological resources to encourage all members of the school community to learn celebrating success in the use of different technologies.
- Using different technologies to enhance children's learning in all areas of the curriculum.

## **Teaching and Learning**

To ensure that children at Bardfield Academy are taught in a coherent and progressive way, a scheme of work from Purple Mash has been implemented across the school. This programme of study for each year group ensures that our Computing curriculum meets the requirements of the National Curriculum as well as ensuring continuity and progression. In the Foundation Stage, children engage in Computing activities in the area of learning called 'Understanding the World'.

Computer technology is used across the curriculum and a range of teaching strategies are employed in both key stages. These include:

- Short, directed activities to practise specific skills.
- Open ended activities that allow pupils to choose which tools to use or to select from a variety of media.
- Using the computer to demonstrate to a group of pupils or to the whole class.
- Individual, paired or group work.
- Individual pupils demonstrating or teaching a skill to others.
- Discussion and debate.

At Bardfield Academy, we believe that children should be active participants in the learning process. Children will be encouraged to adopt a questioning approach and try to solve problems for themselves, with appropriate teacher guidance. In accordance with the principles of responsible learners, self-assessment is an integral part of the teaching and learning of Computing.

## **Assessment and Reporting**

- Ongoing formative assessment will be used by the class teacher to match work to the range of abilities observed and needs of the children to ensure progression in learning.
- Work should be saved by children and stored in their folder within Purple Mash. Teachers will use this work and observations to assess against the expectations of the National Curriculum, adding feedback where appropriate.
- Computing skills should be monitored regularly in relation to the Computing curriculum as outlined in the 'The National Curriculum' for England. Teachers should assess module requirements with reference to children's knowledge, understanding and skills. Other opportunities for assessment will arise from cross-curricular work.
- In EYFS, it may not always be practical to keep samples of work, but observations and discussions could be recorded within their learning journeys or on Tapestry.

## **Differentiation and Special Educational Needs**

Teachers at Bardfield Academy are committed to inclusion and therefore strongly believe in giving all pupils equal access to technology in order to develop their personal capability. Through adaptation of the medium and short-term planning from the Purple Mash scheme, teachers will engage pupils in a variety of activities, which are appropriately differentiated to cater for the wide range of abilities within a class group.

More able children will be given opportunities for further development through open-ended tasks and extension activities which will help ensure that they reach their highest possible potential, without making impossible demands on them. Throughout the year, more able children from across the school will be given the opportunity to become digital leaders, which are pupil monitors for the technology that is used in school. Digital leaders are interested, enthusiastic and trained by the Computing subject leader to spread good behaviour with technology, support teachers and are able to showcase what is possible. Most importantly, the children develop their own skills and become a showcase for what is achievable!

For pupils with identified additional educational needs, tasks will be adapted to enable them to work within their own ability range. Support staff will be integrated into the learning process wherever possible, providing support and encouragement for identified children. Software to support pupils with SEN, such as Clicker 6, is loaded onto appropriate machines to maximise independent access.

### **Equal opportunities**

All children are given equal access to the Computing curriculum regardless of their gender or ethnicity. The full participation of both boys and girls is encouraged during all lessons and groups are arranged to ensure that no one gender or ethnic group dominates. Any pupils who do not have access to a computer or the internet at home are given access within school times or at homework club, if necessary.

### **Spiritual, Moral, Social and Cultural Development**

Pupils are given opportunities to work collaboratively with a partner or a group as well as participating in whole class discussions and debates. This enables them to develop their social skills and appreciate and respect the contributions made by their peers. Pupils also learn to use equipment responsibly and to pack it away neatly for the next user. They also learn to share the equipment so that each person has equal access to different technologies.

### **Health and Safety**

In line with the school's health and safety policy, children are instructed in the safe use of all equipment. All electrical equipment is fitted with plugs containing circuit breakers. Care is taken to ensure that children do not spend too long, without a break, looking at a computer monitor. Children will be reminded of the use of Hector the dolphin, should they access anything inappropriate online (see e-safety policy)

When using the Internet during Computing lessons, all staff adhere to the school's E-Safety Policy. Pupils are introduced to internet safety at the start of each academic year and internet safety posters are displayed by all class PCs. Yearly workshops for parents are also offered to parents, so they become familiar with what their child is accessing and how to 'whistleblow' if there is a concern. When pupils are given homework which may involve the use of the internet, web sites will be recommended by the teacher to prevent pupils accessing unsuitable sites.

It is the responsibility of staff to ensure that classroom computing equipment is stored securely, cleaned regularly and that their class return any equipment used to the Computing resource cupboards.

Staff should ensure that the children are seated at the computers comfortably and be aware of the dangers of continuous use (e.g. eye/wrist strain etc.).

### **Role of the subject leader**

The subject leader will:

- Lead in policy development and the production and implementation of schemes of work
- Support colleagues in their development of short-term plans and the implementation of the schemes of work
- Monitor the delivery and impact of the Computing curriculum and ensure it meets the requirements of the National Curriculum 2014
- Keep abreast of new developments in computer technology and disseminate information to colleagues as appropriate
- Plan and implement staff training programmes according to staff needs, in liaison with the Senior Leadership Team (SLT)
- Monitor the use of computer technology
- Be responsible for ensuring suitable resources for teaching the curriculum are available and current

### **Role of the Class Teacher**

The class teacher will:

- Have an awareness of the requirements of the National Curriculum for Computing.
- Monitor the achievements of pupils and use this assessment to inform planning to secure weaker areas.
- Ensure safe use of technology in the classroom.
- Develop their own expertise in computer technology and be familiar with available software.
- Report faulty equipment or make purchase requests promptly to the COMPUTING lead.

### **Resources**

Each class is equipped with 2 desktop computers or laptops and the network has a range of software. Software requirements are regularly monitored and updated by the Computing subject lead as necessary. All classrooms are equipped with an interactive whiteboard, projectors and have a digital camera with a battery charger. It is the teachers' responsibility to ensure that photographs are regularly downloaded onto the school network. Staff are not permitted to use mobile phones to take photographs of pupils or school activities. Other computer equipment is centrally stored in the locked cupboard in the Music Studio, this equipment includes control and monitoring equipment, ink cartridges, programming equipment, microphones and cameras. There are three trolleys in the school which contain: iPads (stored in the paper cupboard), KS1 laptops and KS2 laptops.

Computing may be taught as part of the Creative Curriculum where appropriate to allow pupils to develop their skills with relevant activities. The Purple Mash Scheme is used to provide structure and support for both teachers and pupils during Computing lessons. In addition, a trained Computing technician is timetabled for use in class to assist teachers in delivering the Computing curriculum.

### **Cross-Curricular Links**

The use of computer technology significantly enhances teaching and learning in other subjects by enabling rapid access to knowledge, information and experiences from a wide range of sources. The use of different technologies throughout the curriculum encourages critical thinking, imagination and creativity, problem solving, initiative and independence, teamwork and reflection. When devising medium and short term plans teachers identify when and where technology will be used in other subject areas.

### **Monitoring, Evaluating and Reviewing**

The Computing subject leader is Miss S Landsborough (Teaching and Learning) assisted by Mrs D Andlaw (Technology)

### **Community and Extra-Curricular Links**

Computing is used as a means of communicating with other classes in the school, with parents and members of the wider community. Class pages, forums and emails have made it possible to widen the membership of the community to whom the children and staff correspond.

Children with computers at home are encouraged to use them for homework and other educational activities, thus encouraging parental or family involvement. However, staff at Bardfield Academy are careful not to discriminate against those children without such facilities at home.

There is a School Website which provides information about Bardfield Academy and allows achievements to be celebrated.

### **Policy Review**

Date reviewed	Next Review
June 2018	June 2021 (or sooner if required)