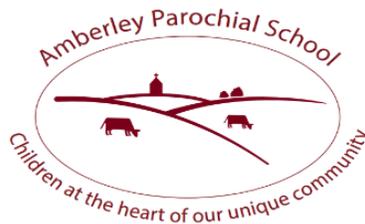


# Computing Policy



**BECOMING REFLECTIVE, INDEPENDENT & ASPIRATIONAL LEARNERS FOR LIFE**

**Chair of Governor:** Dr Holmes

**Approved by:** FGB Committee

**Approved on:** Autumn Term One 2020

**Review Date:** Autumn Term One 2022

**Other relevant policies:** E-safety policy, Acceptable Use policies, PSHCE policy, Positive Behaviour Handbook and Home School Agreement, Safeguarding Policy,

## **Introduction:**

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The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content. At Amberley Parochial Primary, we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to the learning how computer systems work, the use of IT and the skills necessary to become digitally literate and participate fully in the modern world. The purpose of this policy is to state how the school intends to make this provision. It was developed in September 2020 by the Computing subject leader (K Crampton) through discussion with teachers and the leadership team and based on Computing programmes of study (POS): Key stages 1 and 2 (DfE September 2014). It will be reviewed in September 2022.

## **Purpose:**

We believe that an engaging and motivating Computing curriculum will enable our learners to:

- Use computational thinking and creativity to understand and change the world.
- Make deep links with mathematics, science and design and technology.
- Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.
- Become digitally literate – able to use, express themselves and develop ideas through information and communication technology.

## **Aims:**

The school's aims are to:

- Provide a high quality, broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills - the ability to solve problems in a creative, logical and collaborative way – through repeated programming opportunities, and opportunities to build understanding and apply the concepts of computer science so as to benefit learners throughout their lives.
- Meet the requirements of the national curriculum programmes of study for computing at Key Stage 1 and 2
- Enable pupils to become responsible, competent, confident and creative users of information and communication technology.
- Enable pupils to have a growing awareness of how technology is used in the world around them and of the benefits that it provides. Support them to evaluate and use information technology, including new or unfamiliar technologies.
- Enhance and enrich learning in other areas of the curriculum using IT and computing.
- Provide opportunities for communication and collaboration develop understanding of the purposes for using technology and these are used to bring together home and school learning experiences.
- Ensure technology is used imaginatively to engage all learners and widen their learning opportunities.
- Allow pupils access to a variety of devices and resources and encourage them to reflect on the choices they make to use them.

We expect our pupils to:

- Develop computing skills, knowledge and understanding
- Develop the understanding of how to use computers and digital tools safely and responsibly
- Develop an understanding of the wider applications of computer systems and communication technology in society
- Develop independent and logical thinking through reasoning, decision making and problem solving
- Develop imagination and creativity
- Work independently and collaboratively

The National Curriculum for Computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication
- Can analyse problems in computational terms, and have repeated practical experience of 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.

### **Curriculum Impact**

The Amberley children will develop to be responsible, competent, confident and creative users of technology. They will be able to understand and apply concepts of computer science and use technology to gain and evaluate information, thinking and acting logically.

### **Curriculum coverage and progression:**

- Planning for Computing is implemented using two core documents: The National Curriculum Programme of Study for Computing and the Statutory Framework for Early Years Foundation Stage
- Long term planning has been developed using the National Centre of Computing Excellence (NCCE) planning and demonstrates coverage and progression of the attainment expectations at the end of Key Stage 1 and Key Stage 2 as identified in the Computing POS.
- Medium term planning takes account of differentiation and progression and is based on NCCE scheme progressions in Programming, Computational Thinking, Creativity, Computing Networks, Communication/collaboration, Productivity
- Key skills in information technology are developed through Multimedia and Handling Data threads and are integrated into learning in other curriculum areas.
- E-Safety is developed through PSHE and, together with the threads of Computing Networks and Communication/collaboration, builds the skills and understanding of Digital Literacy.
- Opportunities for technology as a tool to support learning and teaching in all areas are identified in curriculum planning.

### **Assessment:**

- Progress is assessed on an on-going basis using the NCCE assessment statements for each thread of Computing. This ensures teachers are aware of individual pupil's progress in computer science, information technology and digital literacy.
- Formative assessment is used by the class teacher and teaching assistant during whole class or group teaching. Children's confidence and difficulties are observed and use to inform future planning.
- Each class teacher maintains a record, using the school's online assessment tool, indicating pupils that are working beyond or below age-expected attainment.
- Open questions are used to challenge children's thinking and learning.
- Children are encouraged to evaluate their own and others' work in a positive and supportive environment, including peer assessment.

- Teacher's judgments are supported through an electronic portfolio of evidence which provides examples of age-expected attainment.
- Information is shared with the school community through the school website, blog, display, celebration events, newsletters, and end of year reports.

**Early Years:**

- Pupils build confidence to use technology purposefully to support their learning for all Early Learning Goals as appropriate.
- Pupils in Foundation Stage class will have experiences using technology indoors, outdoors and through role play in both child-initiated and teacher-directed time.

**e-Safety:**

- A progressive e-Safety curriculum ensures that all pupils are able to develop skills to keep them safe online.
- Opportunities for learning about e-Safety are also part of PSHE and reinforced whenever technology is used.
- Clear rules for e-Safety are agreed by each class at the beginning of every year. Parents and pupils sign an acceptable user policy together when a pupil first starts at the school and this is repeated as they enter each Key Stage.
- The NCCE programme of study is used to ensure progression and coverage
- The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of the teaching content.
- Opportunities are taken whenever possible to reinforce messages of a healthy life style.
- The school has an e-safety policy in place that details how the principles of e-safety will be promoted and monitored.
- Parents are given e-safety advice each week, through the school e-safety blog.
- Teaching staff discuss e-safety as a standing agenda during weekly staff meetings.

**Monitoring:**

- The impact of the Computing curriculum is monitored regularly by the Computing subject leader through pupil discussion, samples of work and discussion with teachers, an electronic portfolio and the use of the NAACE Self Review Framework.
- Systematic monitoring of all threads of Computing inform the subject leader and school development plan.
- The Computing leader conducts regular audits of the training needs of teachers and teaching assistants to improve their subject knowledge and confidence. Requests for training in Computing can be part of individual teacher's performance management plan.

**Equal opportunities:**

- The school maintains its policy of equal opportunities as appropriate for Computing.
- Computers and related technology are made available to all pupils regardless of gender, race or abilities.
- The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEND pupils are met.
- The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

**Resources:**

- The school has a range of resources to support the delivery of the Computing curriculum, the Early Years Framework and learning across all areas of the National Curriculum. We maintain a list of resources used in school.
- The Computing subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technology support provider, Edit Concepts.
- Hardware and software faults are logged by the class teacher by emailing Edit with technological issues (support@editconcepts.com)
- The Computing Action Plan expresses the school's priorities for future expenditure and is reviewed by the Computing subject leader, governors and senior management who consider its impact on all learning.
- Governors and senior management ensure that they achieve value for money by implementing the principles of best value in evaluating, planning, procuring and using technology.

- Old resources are disposed of in line with Gloucestershire County Council's environmental disposal policy and the school's data protection policy where these are applicable.

**Roles and responsibilities:**

- The school community works together to ensure the implementation of the Computing policy.
- The subject leader is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.
- Subject leaders in other curriculum areas are responsible for recognising the links between Computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.
- The Computing subject leader provides an annual report to governors on the impact of the Computing curriculum and how resources are being effectively deployed. Governors may include Computing in their learning walks around the school.
- The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.
- The school receives technical support from Edit and the technicians are responsible for the maintenance of computers, printers, the school network and keeping software up to date. The subject leader liaises with the technician to ensure that the systems are running efficiently.

**Health and safety:**

- Age appropriate class and safety rules are displayed in the learning environment.
- Equipment is maintained to meet agreed safety standards.
- From Foundation Stage, pupils are taught to respect and care for technology equipment.
- Further guidance can be found in the school's health and safety policy.