

## Britannia Community Primary School

### Computing Policy



#### **1. Our Britannia Vision**

Our vision is for all teachers and learners in our school to become confident users in Computing so that they can develop the skills, knowledge and understanding which enable them to use appropriate computing resources effectively as powerful tools for teaching & learning.

We will do this by:

- striving to keep children safe online and providing them with the knowledge and tools to do so.
- empowering parents, carers and the wider community by keeping them up to date with information regarding keeping children safe online.
- providing children with the experience and the skills to keep up to date with technology in a rapidly changing world.
- using a variety of technology to engage children in their learning, empowering staff to work creatively and effectively.
- ensuring that teacher's knowledge and skills are up to date so that they can teach and deliver effective Computing lessons, along with our resources, software and hardware in school.

Information Technology will be an integral communication tool within the school and to the wider community.

#### **2. Aims and objectives**

2.1 Computing has become part of the way in which we all work and entertain ourselves. Almost everything we do at school now involves the use of Computing:

- online lesson research, teaching plans and resource materials;
- lesson delivery via interactive whiteboard, resources online etc;
- communication by e-mail;
- document distribution and storage;
- assessment information analysis;
- production and editing of reports;
- use of programs and apps to support teaching and learning.

Thus, through teaching Computing, we equip children to participate in a world of rapidly changing technology. We enable them to find, explore, analyse, exchange and present information. We also help them to develop the necessary skills for using information in a discriminating and effective way. This is a major part of enabling children to be confident, creative and independent learners.

2.2 The National Curriculum states that:

A high-quality computing education equips pupils to use computational thinking and 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. 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. Building 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.

2.3 Our objectives in the teaching of Computing are:

- to meet the requirements of the National Curriculum aims for Computing.
- to facilitate the finding, selection and use of information.
- to teach the use of Computing for effective and appropriate communication.
- to enable the monitoring and control of events, both real and imaginary.
- to provide opportunities for children to write computer programs and debug any problems.
- to teach the application of Computing to children’s learning across the curriculum.
- to explore the value of Computing, both to children and to society in general.
- to examine issues of security, personal safety, confidentiality and accuracy.
- to develop the cross-curricular use of Computing in all subjects.

### **3 Teaching and learning style**

3.1 As an objective of teaching of Computing is to equip children with the technological skills to become independent learners, the teaching style that we adopt is as active and practical as possible. While, at times, we do give children direct instruction on how to use hardware or software, the main emphasis of our teaching in Computing is for individuals or groups of children to use technology to help them to progress in whatever they are studying. So, for example, children might research a history topic by using role-play software that engages them in a highly visual way, or they might place themselves in a historical setting by manipulating a digital photograph or they might investigate a particular issue using the Internet.

3.2 We recognise that all classes have children with a wide range of Computing abilities. This is especially true when some children have access to Computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- setting tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children appropriately in the room, and setting different tasks for each ability group where appropriate;
- providing resources of different complexity that are matched to the ability of the child;
- using staff within the classroom to support the work of individual children or groups of children.

### **4 Computing curriculum planning**

4.1 Computing is a foundation subject in the National Curriculum. The school uses the NCCE Teach Computing scheme of work for Computing as the basis for its curriculum planning.

4.2 We carry out the curriculum planning in Computing in three phases (long-term, medium-term and short-term). The long-term overview maps the Computing topics that the children study in each term during each key stage. The Computing subject leader devises this in conjunction with teaching colleagues in each year group based upon the NCCE Teach Computing overview and the children often study Computing as part of their work in other subject areas. Our long-term Computing

overview shows how teaching units are distributed across the year groups and how these fit together to ensure progression within the curriculum.

- 4.3 Our medium-term plans, which we have adopted from the NCCE Teach Computing scheme of work give details of each unit of work for each term. They identify the key learning objectives for each unit of work and what will be covered during each lesson. These are taken from NCCE and annotated and adapted as appropriate by class teachers. The Computing subject leader is responsible for monitoring and reviewing these plans.
- 4.4 The class teacher is responsible for using and adapting the short-term plans from NCCE. These plans list the specific learning objectives and expected outcomes for each lesson. The class teacher keeps these individual plans and s/he and the Computing subject leader discuss them on an informal basis.
- 4.5 The topics studied in Computing are planned to build on prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also plan progression into the scheme of work, so that the children are increasingly challenged as they move up through the school. The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years.
- 4.6 Parents and carers are required to give signed authorisation through an acceptable use agreement before their child can use the Internet, either in guided or in independent school work. Parents and carers are, however, assured that their child's use of the Internet at school is always supervised. Our Online Safety rules in school across EYFS, KS1 and KS2 are based on this acceptable use agreement. These are discussed at the beginning of each academic year, alongside our Britannia Bee rules, and regularly discussed with the children by class teachers, the Computing lead etc.

## **5 The Early Years Foundation Stage**

- 5.1 We teach Computing in Reception as an integral part of the topic work covered during the year and through continuous provision. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the Computing aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. This planning is also aided by unplugged activities such as those suggested in Barefoot Computing etc. The children use computers, iPads, as well as a variety of other technologies such as Beebots. During the year, they also gain confidence and start using technology to find out information and to communicate in a variety of ways.

## **6 The contribution of Computing to teaching in other curriculum areas**

- 6.1 The teaching of Computing contributes to teaching and learning in all curriculum areas. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. For example, work using databases supports work in Mathematics and Geography, while role-play simulations and the Internet prove very useful for research in Humanities subjects. Computing enables children to present their learning and research in the most appropriate way. Much of the software we use is generic and can therefore be used in several curriculum areas.

Computing makes a contribution to the teaching of PSHE and citizenship in that children in all curriculum subjects (including Computing) learn to work together in a collaborative manner. They also develop a sense of global citizenship by using the Internet and e-mail. Our Teach Computing

scheme of work, alongside plans and resources from Project Evolve, help children learn how to stay safe online. Children will also learn about online safety through PSHE lessons and across all curriculum subjects where appropriate. Through discussion of safety and other issues related to electronic communication, the children develop their own view about the use and misuse of Computing, and they also gain an insight into the interdependence of Computing users around the world.

## **8 Assessment for learning**

- 8.1 Teachers will assess children's work in Computing in a variety of ways. Each KS1 topic has an assessment rubric. The teacher will use this to inform their judgements of whether a child is working below, at or above the expected standard for that Computing unit. Some KS2 topics start with a summative assessment. The children complete this at the beginning of each topic and again at the end. This will demonstrate progress through a Computing unit as children should complete the summative assessment at the end of the topic more successfully than they did initially as they will have been taught the content. Where a unit does not have a summative assessment, the unit has an assessment rubric and the teacher will use this to inform their judgements of whether a child is working below, at or above the expected standard for that Computing unit. Teachers will also make informal judgements during lessons. On completion of work/projects completed during lessons, the teacher will be able to see which children have understood the concept and use this assessment to plan for future learning. Written or verbal feedback is given to the child to help guide his/her progress. Older children are encouraged to make judgements about how they can improve their own work and each other's through self and peer assessment.
- 8.2 The subject leader keeps samples of the children's work using Class Dojo (EYFS), Seesaw (KS1) and Google Drive via Google Classroom (KS2). This demonstrates the expected level of achievement in Computing for each age group in the school. Evidence of the children's work is uploaded after each Computing lesson.

## **9 Monitoring and review**

Regular monitoring of all aspects of Computing will inform the subject leader and school development plan/school evaluation form on a regular basis.

- 9.1 The coordination and planning of the Computing curriculum are the responsibility of the subject leader, who also:
- supports colleagues in their teaching, by keeping informed about current developments in Computing and by providing a strategic lead and direction for this subject;
  - gives the governors and headteacher a termly report in which she evaluates the strengths and weaknesses in Computing and indicates areas for further improvement;
  - uses allocated regular management time to review evidence of the children's work, and to observe Computing lessons across the school in line with the monitoring schedule, as well as carrying out planning scrutinies, pupil discussions, looking at evidence of work, on a formal and informal basis with the aim of ensuring adequate curriculum progression and skills. Class teachers are expected to keep evidence of work undertaken in Computing to inform future planning and should be available on request.

## **10 Resources**

The school acknowledges the need to continually maintain, update and develop its resources and to invest in resources that will effectively deliver the strands of the National Curriculum and support the use of computing across the school. The resources required to deliver the Computing curriculum will be available to each class teacher.

- 10.1 Our school has the appropriate computer-to-pupil ratio and Internet access. Most software is already installed on PCs/laptops/Chromebooks and iPads. Some software is installed only on the teacher iPads. Each class has timetabled access to a class set of iPads and Chromebooks. In terms of software, the subject lead will keep up to date with the latest developments in educational software, as well as those required by the NCCE Teach Computing curriculum scheme, and look to ensure the school has the best available software to ensure effective delivery of the curriculum.
- 10.2 We employ a technician to keep our equipment in good working order. Members of staff report faults to the Computing co-ordinator who then liaises with the ICT technician as appropriate. The technician will also set up new equipment and install software and peripherals.
- 10.3 Each teacher has a laptop, an iPad and an encrypted USB drive.
- 10.4 In order to keep our school computers virus-free, no software from home will be installed on school computers. Where teachers are transferring files between their home and school, they must have up-to-date virus protection software on their home computers or use One Drive via their school email account.

## **11. Health and Safety**

The school is aware of and makes provision for the health and safety issues associated with children's use of ICT and computing in the following ways;

- 11.1 All fixed electrical appliances in school are tested by an external contractor every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school. This also applies to any equipment brought into school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people.
- 11.2 All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the site supervisor or Computing co-ordinator who will arrange for repair or disposal and liaise with our technician if required.
- 11.3 Children should not put plugs into sockets or switch the sockets on.
- 11.4 Trailing leads should be made safe behind the equipment.
- 11.5 Liquids must not be taken near the computers.
- 11.6 Magnets must be kept away from all equipment.

Online Safety guidelines are set out in the Online Safety policy and should be read alongside this policy, as well as the updated Keeping Children Safe in Education (Part 1) statutory guidance. Our Online Safety rules are regularly discussed with the children and form part of the Acceptable Use policy.

## **12. Professional Development and Training**

The Computing co-ordinator will assess and address staff training needs when reviewing the School Improvement Plan and Computing action plan each term or in response to individual needs and requests throughout the year. Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the coordinator. Teachers will be encouraged to use ICT to produce plans, reports and teaching resources.

## **13. Roles and Responsibilities**

Teachers will:

- 13.1 Provide regular Computing sessions for pupils in line with the expectations outlined in this policy.
- 13.2 Use Computing as an opportunity to consolidate learning, develop creativity and prepare pupils for the next stage of their school career when appropriate i.e. Year 6.

13.3 Differentiate their planning to meet the needs of different individuals and groups of children in school.

13.4 Provide the necessary resources, information and instructions for any homework to be completed when using an electronic device (i.e. passwords for Numbots, Mathletics, Times Tables Rockstars, Century Tech and Google Classroom etc where subscriptions are involved).

13.5 Parents are encouraged to support the implementation of ICT and Computing where possible by encouraging use of ICT and computing skills at home during homework tasks.

This policy will be reviewed at least every year.

**Signed: Shannon Connolly**

**Date: September 2024**