

# Clutton Primary School



## Computing Policy

### Rationale

At Clutton Primary School, we will ensure 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 Computing Subject Leader and leadership team support staff to deliver a high quality computing education.
- Computational thinking – the ability to solve problems in a creative, logical and collaborative way – is developed through repeated programming opportunities and opportunities to build understanding and apply the concepts of computer science.
- Pupils become responsible, competent, confident and creative users of information and communication technology.
- Pupils have a growing awareness of how technology is used in the world around them and of the benefits that it provides. They are supported to evaluate and use information technology, including new or unfamiliar technologies.
- 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.
- Technology is used imaginatively to engage all learners and widen their learning opportunities.
- Pupils have access to a variety of devices and resources and are encouraged to reflect on the choices they make to use them.
- We expect our pupils to:
  - Develop computing skills, knowledge and understanding
  - 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

We recognise that all classes have children with a wide range of ICT abilities. This is especially true, as most children have access to differing levels of ICT equipment at home. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child.

## School Curriculum

### Key Stage 1 Children will be taught to:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

### Key Stage 2 Pupils will be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work
- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

### Early Years Pupils will

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

## Planning & Assessment

### Planning

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 *Somerset eLIM Computing Progressions* 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 Somerset progressions in Programming, e-Safety, Multimedia, Handling Data and Technology in our Lives.
- Exemplification planning by the *Somerset Wessex Computing Project* has been used to support short term planning.
- The computer science aspects of Computing are taught discretely through the Programming and Technology in our Lives threads of Somerset's computing model.
- 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 Technology in our Lives and Multimedia, 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 *Somerset 'I can' 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, indicating pupils that are working beyond or below age-expected attainment. This is passed on to the next class teacher.
- Children are aware of the *'I can' statements* and are encouraged to set success criteria for their work.
- 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, display, celebration events, newsletters, and end of year reports.

## Reporting

Parents receive an annual written report on which there is a summary of their child's effort and progress in computing over the year.

## 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 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.** The class rules are then signed annually by pupils and shared with parents.
- The *Somerset BYTE scheme* is used to ensure progression and coverage; and provides positive rewards for responsible use of technology.
- The school supports the international *Safer Internet Day* each February and provides opportunities for pupils to consider cyberbullying as part of *Anti-Bullying Week* in the autumn term.
- 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.

## 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 SEN 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 each phase.
- Online tools such as *Mathletics*, *Activelearn*, *Numbergym*, *BigWrite* and *Oxford Owl* are part of the experience of pupils.

- 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.
- Hardware and software faults are logged by the class teacher in a file kept in the computer room.
- 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.

## **Homework**

See homework policy

## **Health & 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

## **Role of the Coordinator**

- To demonstrate good practice in the teaching of Computing.
- To support colleagues.
- To monitor the teaching of computing in the school by:
  - lesson observations,
  - annual work scrutiny
  - talking with children and staff,
  - gathering annotated samples of children's work
  - To hold staff meetings to discuss relevant matters.
  - To refine/re-develop the SOW as necessary.
  - To share information and audit training needs of staff.
  - To make a yearly Action Plan to focus on specific and identified areas needing development.
  - To ensure that resources and equipment are readily available and centrally stored.

## **Monitoring & Review**

The governing body will monitor the implementation of this policy and review the policy every two years.

*Michelle Parsons* Coordinator February 2015

Review: February 2017