

BLACK HORSE HILL INFANT SCHOOL



COMPUTING AND CODING POLICY

(See also the policies on Internet and E-Safety)

28th February 2019

Approved by Committee _____

21st March 2019

Approved by Full Governing Body _____

Signed _____ (Chair)

Signed _____ (Headteacher)

Black Horse Hill Infant School Computing and Coding Policy

1 Aims and objectives

1.1 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 either a data projector and interactive whiteboard;
- communication by blogging;
- document distribution and storage;
- assessment information analysis;
- production and editing of reports.

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.

1.2 Our objectives in the teaching of Computing are to:

- facilitate the finding, selection and use of information;
- teach the use of Computing for effective and appropriate communication;
- enable the monitoring and control of events, both real and imaginary;
- teach the application of Computing to children's learning across the curriculum;
- explore the value of Computing, both to children and to society in general;
- examine issues of security, personal safety, confidentiality and accuracy;
- develop the cross-curricular use of Computing in all subjects.

2 Teaching and learning

2.1 An objective of the teaching of Computing is to equip children with the technological skill to become independent learners. Consequently, 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 on the Internet.

2.2 We recognise that all classes have children with a wide range of Computing abilities. This is especially true when some children have access to a variety of 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);
- sometimes grouping children by ability, and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using classroom assistants to support the work of individual children or groups of children.
- Tiny technicians for Year 1 and Year 2 classes to support teaching and learning and to put equipment away and collect equipment.

3 Computing curriculum planning

3.1 Computing is a foundation subject in the National Curriculum. Key Stage 1 use Rising Stars Computing Scheme of work as well as the National Curriculum to plan a unit of work. The Early Years Foundation Stage teach the skills the children need to access the equipment available in school - BeeBots, iPads, laptops.

3.2 We review the Computing planning across the school each time a new unit is taught. We look at the National Curriculum requirements and the skills and the need of the children in the class. The school will carry out the curriculum planning in Computing in three phases (long-term, medium-term and short-term). The long-term plan maps the Computing topics that the children study in each term during each key stage.

The ICT subject leader is responsible for continually developing the plan and taking into account online resources and new initiatives in ICT. The children often use technology to enhance their learning in other subject areas.

3.3 Our medium-term plans will give details of each unit of work for each term. They will identify the key learning objectives for each unit of work, and stipulate the curriculum time that we devote to it. The Computing subject leader is responsible for keeping and reviewing these plans. These can be taken directly from the Rising Stars Scheme of work and can be annotated by the class teacher.

3.4 The subject leader will be working with school staff and Specialist teachers from Edsential to develop this daily planning. These daily plans list the specific learning objectives and expected outcomes for each lesson. The children use these objectives and outcomes at the end of each lesson to reflect on their own learning and plan the next steps.

3.5 The units studied in Computing are planned to build on the children's 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.

3.6 Parents and carers are required to give signed authorisation 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. A record of those children who do not have permission to use the Internet at school is held by the subject leader, each class teacher and the school office.

4 The Early Years Foundation Stage

4.1 We teach Computing in the Foundation 2 classes as an integral part of topic and themed work covered during the year. As foundation 1 and 2 are part of the EYFS, we relate the Computing aspect of the children's work to the objectives set out in 'Technology' within the Specific Area of Understanding the World. Planning takes into account the age and stage of development of the children, with specific learning opportunities helping children to progress towards and achieve the Early Learning Goal of;

Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Children in Foundation 1 and 2 have the opportunity to use the interactive whiteboard (accessing a variety of programs to support other areas of learning), iPads, Easi-Speak microphones, 'Talking Tins' and simple programmable toys. As the year progresses, children gain confidence in using a variety of Computing resources, helping them to find out information and communicate in a variety of ways.

5 The contribution of Computing to teaching in other curriculum areas

5.1 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 technology to present information visually, dynamically and interactively, so that children understand concepts more quickly. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while role-play simulations and the Internet prove very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way. Many of the resources used during lessons are accessible from home, therefore children can independently continue their learning out of school hours.

5.2 English

Computing is a major contributor to the teaching of English. Children's reading development is supported through talking stories, online reading schemes (Bug Club) and texts. There is, in addition, a variety of software and online resources which target specific reading, grammar and spelling skills.

5.3 Mathematics

Children use Computing in mathematics to collect data, make predictions, analyse results, and present information graphically. Screen robots allow pupils to give exact instructions for a particular route, or to use their knowledge of angles to draw a range of polygons. We also subscribe to Mathletics site which makes learning fun and interactive.

5.4 Science

Technology is used to animate and model scientific concepts, and to allow children to investigate processes which it would be impracticable to do directly in the classroom. Data loggers are used to assist in the collection of data and in producing tables and graphs. Science Songs, Video and interactive displays all contribute to deeper learning experiences.

5.5 Personal, social and health education (PSHE) and citizenship

Computing makes a contribution to the teaching of PSHE and citizenship in that children in Computing lessons to work together in a collaborative manner.

Our E-safety lessons, assemblies and workshops aim to develop a set of safe and discriminating behaviours for pupils to adopt when using the Internet and other technologies. 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 ICT users around the world.

6 Computing and inclusion

6.1 At our school, we teach Computing to all children, whatever their ability and individual needs. Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Computing teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this. (For further details, see separate policies on Special Educational Needs, Disability Discrimination, Gifted and Talented Children, Single Equality Scheme)

6.2 Work in Computing may contribute to a child's targets as set out in their Individual Education Plan. We have a range of software to target specific skills in spelling, reading and number that staff can tailor to suit children's individual needs. In some instances, the use of Computing has a considerable impact on the quality of work that children produce, by increasing their confidence and motivation.

7 Assessment

7.1 Children's work is assessed by making informal judgements during Computing lessons. Written or verbal feedback is given to the child to help guide his or her progress. The end of unit assessments are included in the Update files.

Class teachers in Key Stage 1 annually (end of the summer term) input where children are working on Target Tracker. Class teachers in EYFS input their data every term on Target Tracker.

7.2 The subject leader monitors progress across the school using the information inputted onto Target Tracker.

8 Resources

8.1 Our school has a range of hardware available to each class, including classroom work stations, networked laptops, iPad Mini's and iPads. We also have a small Computing Suite. To enhance all areas of the curriculum, we have a wide range of software installed on our network and this is accessible to staff and children throughout the school.

8.2 As well as laptops we have a class set of iPads and a class set of iPad Mini's that cover both, a range of curriculum areas and target specific skills. These apps are updated and added to regularly.

8.3 We employ a technician to keep our equipment in good working order. Members of staff report faults in the file provided for that purpose in the ICT suite. The technician will also set up new equipment, and install software and peripherals.

8.4 Anti-virus software is used to scan the network and removable media in order to keep it virus-free. 5

9 Monitoring and review

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 Headteacher and Governors an annual summary report in which the strengths and weaknesses in Computing are evaluated and areas for further improvement indicated;
- uses specially allocated regular management time to review evidence of pupil's work.

9.2 The quality of teaching and learning in ICT is monitored and evaluated by the Headteacher as part of the school's agreed cycle of monitoring and evaluation.

9.3 This policy will be reviewed every three years or sooner if necessary.

Christopher Young
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