Computing Policy

Vision

Our vision for the computing curriculum is that it should equip children with the knowledge and skills necessary to fully participate in a rapidly changing world, where work and leisure activities are increasingly transformed by technology. We aim to offer our children a broad and balanced curriculum which prepares them to use computational thinking with a flair for design. We believe that our children should learn to be creators as well as consumers of technology. Online Safety is a key safeguarding issue and this is addressed in our Online Safety Policy.

Aims

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

Teaching and Learning

The Computing Curriculum is divided into three broad areas; Computer Science, Digital Literacy and Information Technology. We aim to offer a broad and balanced curriculum.

We believe children will learn to use technology more effectively if they are doing something creative. They will use a variety of hardware, software, apps and innovations to broaden their abilities.

We recognise that all classes have children with widely differing Computing abilities. This is especially true when some children have access to Computing and IT 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 by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all of the tasks);
- grouping children by ability in the room 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 the individual children or groups of children
- providing after school computing clubs

Curriculum Coverage and Progression.

The school uses a variety of resources along with the 'Switched on Computing' scheme of work as the basis for its curriculum planning. Long term planning demonstrates coverage and progression of the key skills for Computing and maps out the topics studied each term over both key stages. The SoW and key skills documents identify the key teaching objectives for each unit of work. Children are taught Computing in discrete lessons (with a focus on Computing Science and Information Technology), we use the scheme of work to ensure progression of skills throughout the key stages. However, this planning is adapted to the needs of each class.

Digital Literacy

Digital Literacy is embedded into our teaching across the curriculum but it also taught discretely across various school subjects and in Computing lessons.

Foundation Stage

We teach IT skills in Reception as an integral part of the work covered during the year. We relate the computing aspects of the children's work to the objectives as set out in the Early Learning Goals (Understanding the world – Technology) which underpin the curriculum planning for age's three to five. They will have the opportunity to use computers and controllable devices and toys in both an exploratory and structured way. Observations will inform the next steps for learning.

Teaching Computing to children with special needs

At Monksdown Primary School we teach computing to all children, whatever their ability. Indeed we make extensive use of a number of software applications specifically designed to support children with a variety of special needs. Computing forms part of our school curriculum policy to provide a broad and balanced education for children with learning difficulties. In many instances the use of Computing and IT has a considerable positive impact on the quality of work that the children produce; it increases their confidence and motivation. When planning work in Computing, we take into account the targets in the children's Individual Education Plans. (IEPs)

Assessment and Monitoring

Teachers observe and review progress against the key skills for Computing, this is recorded in the teacher's assessment booklet. Samples of children's work are kept in an online file which is accessible by the subject leader and teachers. The subject leader reviews samples of children's work and makes informal visits to classes to observe the teaching of Computing. Teacher's assessments are passed to the next teacher at the end of the year. Assessments are reported twice yearly; at the Spring Parents' afternoon and in the annual report.

Although the assessment of children's work in Computing can be quite challenging particularly where computing skills are embedded in other subjects, we strive to implement a number of assessment for learning techniques that apply in other subject areas. Teachers may observe, review progress (where children have worked independently) or use informal judgements and open questioning to assess whether key concepts and knowledge have been grasped during lessons. On completion of each computing task or at the end of a topic the teacher makes an informed judgement about the individual learning that has taken place (skill acquired) and records it in the Key Skills Assessment Booklet which is passed on to the next teacher at the end of the year.

The monitoring of the standards of the children's work and of the quality of teaching in Computing is the responsibility of the Computing subject leader. The Computing subject leader is also responsible

for supporting colleagues in the teaching of Computing, for keeping them informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The Computing subject leader gives the headteacher an annual summary report in which the strengths and areas for development are identified.

Resources.

Monksdown Primary School has networked PCs and an interactive touch screen in every classroom and a set of IPads per year group. In addition, there are 2 class sets of IPads and 1 class set of laptops stored centrally for curriculum use. We have a Computing Suite timetabled for the discrete teaching of Computing although this can also be taught in class depending on the unit of work. There are programmable toys, Bluetooth Beebots, Lego WeDo sets, microphones, Crayola animation sets cameras and a variety of software to ensure that teaching and learning can be creative and varied. Each teacher has a laptop and IPad to ensure that they are modelling good use of technology across all subjects.

Inclusion and Equal Opportunities

All teaching and non-teaching staff at Monksdown Primary School are responsible for ensuring that every pupil, regardless of gender, race, culture, background and ability have the opportunity to experience education at an appropriate and challenging level. To ensure that pupils experience high standards of success, Computing needs to be taught with regards to pupil's abilities to ensure progress. We aim to identify and minimise barriers to learning and take account of gender, ability, disability, social, cultural, and linguistic background when planning lessons. Provision is made to enable all pupils to participate effectively in curriculum and assessment activities. A wide range of gender specific and cultural images that challenge stereotypes will be used.

This policy ensures that certain aspects of Computing are not seen as more appropriate for boys or girls. Individual teachers consider carefully the groupings they have. These might depend on the experiences the children have had in their home environments.

Accessibility and Teaching Computing to pupils with Special Educational Needs

We teach Computing to all pupils, whatever their ability, in accordance with the information set out in our school curriculum overviews, providing a broad and balanced curriculum to all. Teachers provide learning opportunities matched to the needs of children of all capabilities, setting and reviewing appropriate targets.

Subject Leadership

The Subject Leader will:

- Ensure that the subject is regularly discussed, reviewed and monitored within the school.
- Keep resources up-to-date and relevant, particularly in preparation for each unit of work.
- Promote good subject practice throughout the school.
- Set a good example of subject practice.
- Support long term planning for the whole school.
- Inspire learning
- Provide support and guidance to colleagues on teaching the units of work
- Purchase and organise resources
- Maintain equipment and make them easily accessible for teachers
- Attend courses for CPD and report back to staff

Policy Review

This policy was last reviewed: Spring 2018

Date of next review: Spring 2020