

Horton Park Primary School



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We Learn to Succeed

Computing Policy

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Mission Statement: We learn to succeed

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.

(National Curriculum 2014)

Intent:

Through teaching Computing we equip children to participate in a rapidly-changing world where all aspects of life are increasingly transformed by technology. It is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in an effective way. We want children to know more, remember more and understand more in Computing so that they leave primary school computer literate.

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

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.
- 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
- are taught to be respectful and safe using a range of digital communications.

What do we mean by Computing?

To have a range of skills within Computing, which can be transferred to new technologies enabling children to be confident and competent in a digital world.

Why do we think Computing is important?

New technologies have become integral to the lives of children and young people in today's society, both within schools and in their lives outside school, equipping them with skills needed for the future workforce.

The internet and other digital and information technologies are powerful tools, which open up new opportunities for everyone. These technologies can stimulate discussion, promote

creativity and increase awareness of context to promote effective learning. E Safety involves raising awareness of British law on e-communications; computing projects can give the opportunity to demonstrate democracy in action, through video, coding and app design; take inspiration from a range of other cultures and religions through electronic communication. This help builds tolerance and understanding; practise and rehearse mutual respect through role plays and dilemma card activities. This is especially prevalent in all e-safety aspects of the curriculum; when developing web pages, wikis and blogs understand the importance of digital footprints and respect.

Breadth of study

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- Practical activities
- Use a range of technologies
- Problem solving
- Individual, group and whole class discussions and activities
- Open and closed tasks
- Application of skills
- Opportunities for IT to enhance other areas of the Curriculum

Through our creative curriculum approach we also seek to explore and utilise further opportunities to use and apply computing across all subject areas.

Teachers planning and organisation

Each class teacher is responsible for the computing in their class / year group in consultation with and with guidance from the subject lead.

The approach to the teaching of computing within the school is based on three key principles:

- Data handling
- Information literacy and E Safety
- Computer science
- Media

E Safety and Information Literacy are ongoing units taught throughout the year. This includes an E Safety week, Anti bullying week and visitors to regularly raise awareness. Other units are blocked or taught weekly. Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom.

Medium Term/ Short term planning

Lessons are planned using resources from the Innovation Centre scheme of work, which is adapted by the class teacher. Computing is planned as a unit of work and is collected and monitored by the subject leader termly. EYFS planning is based on the medium term plans and delivered as appropriate to individual children with thought to where the children are now and what steps they need to take next.

Inclusion

The computing lessons are inclusive to pupils with special educational needs. Where required, children's Personalised Provision Plans will address targets. Computing is used to support children with special educational needs and is included on many provision maps, to support in addressing targets.

Within the computing lesson teachers must not only provide differentiated activities to support children with special educational needs but also activities that provide appropriate challenges for children who are high achievers in computing. It is vital that all children are challenged at a level appropriate to their ability.

Greater Depth / More Able

More able pupils are those who are achieving or have the potential to achieve the higher standards in Computing by the end of each Key Stage. This may include those children who, for whatever reasons, may be currently underachieving. At Horton Park we define the higher standards as those set by the Department for Education in collaboration with the Standards and Testing Agency.

Mastery of the curriculum requires that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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

Developing mastery with greater depth is characterised by pupils' ability to:

- Demonstrate high level problem-solving skills
- Possess high powers of logical/mathematical reasoning
- Have the ability to work independently and effectively
- Make appropriate use of technical vocabulary
- Demonstrate Computing/ICT capability above that expected for the age-group
- Explore independently beyond the given breadth of a Computing/ICT topic

Equal opportunities

We incorporate computing into a wide range of cross-curricular subjects and seek to take advantage of multi-cultural aspects of computing. We ensure that all children are able to fulfil their potential regardless of race, religion, disability or gender.

Pupils' records of work

Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording and saving. This includes recording work both digitally and written. All

digital work is saved on the school server or on online. See E Safety policy for more details.

EYFS record informally within the setting. For example:

- On the playground
- On whiteboards
- I pads
- websites

Staff in Foundation use photos to ensure records of each child's achievements are maintained.

Marking

Marking of children's work is essential to ensure they make further progress. All work is marked against success criteria, in line with the school marking policy, and includes 'Now' steps. Work is to be marked once completed before a child starts the next piece of work in accordance with the school marking policy. Children are encouraged to self-evaluate their work and given time to respond to the 'Now' steps. Children in KS2 are encouraged to provide a 'Top Tip' after the completion of work if this is appropriate.

Pupil Achievement and Feedback

Teachers make regular assessments of each child's progress and record these systematically. A record of each child's attainment against the key objectives for the appropriate year group is recorded at the back of the books where children will have targets each half term.

Short term

Children's class work is assessed frequently through:

- regular marking
- analysing errors
- questioning
- discussion
- plenaries

This is used to inform future planning and teaching. Lessons are adapted readily and short term planning is evaluated and annotated in light of these assessments. The teachers update their findings regularly using Classroom Monitor and this will be used to monitor progress during half termly pupil progress meetings.

Long term

Data is analysed twice a year to demonstrate progress towards end of key stages. This includes monitoring and tracking from Early Years, Year 2 and Year 6.

Reporting to Parents

The annual report to parents will include information re: progress and attainment and future targets in the subject.

Monitoring and Evaluation

Monitoring will be carried out by the maths subject leader as follows:

1. **Auditing Planning:** Access to all planning, relating planning to the National Curriculum and evaluating appropriateness. Also through formal and informal classroom observations when prioritised on the School Improvement plan.
2. **Monitoring of work:** Analysis of pupil's work in work scrutiny and discussions with pupils and class teachers.
3. **Monitor the Quality of teaching:** Analysis of planning related to the Framework and classroom observations re. Effectiveness of planning in practice.
4. **Auditing Resources:** Annual risk assessment and ongoing evaluation of resources. Monitor use of resources.

The subject leader will:

- Lead by example showing a thorough understanding of the subject
- Offer support to teachers in assessment, planning, teaching and delivery
- Work alongside the Headteacher to monitor and evaluate teaching and progress
- Identify training and development needs, plan and deliver training.
- Resource computing throughout school, prioritising spending in consultation with staff and in accordance with the subject action plan and SIP.

Children will be encouraged to:

- Enjoy computing and see its relevance for life.
- Understand what their next steps are, and be able to evaluate their progress towards them.
- Use computing vocabulary with confidence.
- Use a range of digital equipment with confidence.
- Use their knowledge to solve problems, see patterns, make predictions, present information clearly, interpret data
- Provide clear explanations of their methods.
- Create digital resources to use or share with others

Parents will:

- Be encouraged to develop positive attitudes to computing and actively support their children when homework is given
- Be well informed of their children's progress through annual reports and parents meetings.

Review Process

Headteacher reports outcomes of monitoring and evaluations to the Governing body half termly. Headteacher, Deputy Head / computing subject leader monitor delivery in practice and related planning; feeding back outcomes and development points to staff as appropriate.

See E Safety and Acceptable Use policy