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COMPUTING POLICY
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Computing is a foundation subject within the National Curriculum 2014 and the acquisition of Digital Literacy skills is essential. This will enable pupils to fully access and enhance their experience of the whole curriculum and grow up to become participants, on equal terms, as full members of society.

This policy outlines the purpose, nature and management of the Computing Curriculum and the Whole School Network, which is taught and learned in our school.

With reference to the National Curriculum:

Purpose of study

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.
The introduction also makes clear the three aspects of the computing curriculum: Computer Science (CS), Information Technology (IT) and Digital Literacy (DL).

Aims
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.

Subject content

Key Stage 1

Pupils should 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 should 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 and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Links with Samuel Allsopp's Statement of Aims

Samuel Allsopp's aims:

- to create a safe, secure and stimulating environment for every person – child or adult
- to ensure every member of our community is valued and respected and appreciates the needs of others
- to celebrate achievements, differences and cultural diversity

- develop an understanding of and a sense of responsibility by valuing the community, the richness of other cultures and the world we live in
- ensure the statutory requirements of the Early Learning Goals and National Curriculum are met and the provision is appropriate, relevant, challenging and motivating in an environment which every child will be encouraged to reach their full potential
- to have assessment and planning procedures that enable us to ensure continuity and progression of learning for each child to enable them to reach their full potential
- to provide an environment where children apply their knowledge, skills and understanding with confidence whilst developing their ability to investigate and problem solve through discussion, prediction and evaluation
- to ensure the highest levels of achievement by our children, by providing the highest quality teaching, via a meaningful and relevant curriculum, which encourages and challenges them to be active, creative, independent and self-critical learners, unafraid of making mistakes

Organisation

We should aim, wherever possible, to teach Computing in an inclusive setting, recognising that children who are slower at acquiring ICT skills can benefit enormously from listening to and participating alongside their peers as well as making their own equally valid contributions.

Bilingual staff have a vital role to play in ensuring access to the Computing Curriculum concepts both through translation and by involvement in discussion using mother tongue.

Class Teachers are responsible for the organisation and teaching of the Computing Curriculum in their own classes following the National Curriculum and referring to it in their weekly planning for the Creative Curriculum, also embedding ICT into core subjects. The teaching and grouping of pupils will depend on the task, recognising that all children have an entitlement to access to the Purpose, Aims and Subject content of the Curriculum, matched to their knowledge, understanding and previous experience. Planned activities will encourage full participation by all pupils. Differentiation in terms of tasks, learning objectives and teaching approaches will be planned for children with Special Educational Needs. Able pupils will be challenged with open-ended tasks and will be given opportunities to tackle more complex work.
Each year group has a Computing Curriculum folder that contains specific guidance on using ICT facilities, progression map, NC attainment targets and the skills ladders to assess the children's' skills.

Progression

Following the Teach Computing Scheme of work our pupils will develop and progress to achieve the following:

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Key Stage 1:

E-Safety and Digital Literacy: 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.
Programming: 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.
Information and Communication Technology: use technology purposefully to create, organise, store, manipulate and retrieve digital content, recognise common uses of information technology beyond school.

Key Stage 2:

E-Safety and Digital Literacy: use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content, use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
Programming: 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 and to detect and correct errors in algorithms and programs.
Information and Communication Technology: understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration, select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Remote Learning

Remote / distance learning has now become part of school life.
Staff based in Nursery to Year 6 as well as Speech and Language Centre are trained in using Class Dojo. This App has an interface that is user friendly for all children and allows teachers, parents and children to communicate with each other as well as enabling work to be set, completed and re-submitted to staff to mark.

Early Years Foundation Stage

Computing is not explicitly mentioned in the Early Years statutory Framework. In EYFS, children will explore the use of technology through play, enabling them to have the opportunity to use tablets and electronically controlled devices such as floor robots. In nursery and reception the children will begin to follow the scheme, Education for a connected world, to start learning all about internet safety. By the end of the year the children will be confident in; using tablets to take photos/record videos, play age-appropriate games and explore programming.

Cross-curricular links

Integrating cross-curricular links enable us to appreciate the importance of interaction between the Computing Curriculum and other areas of the curriculum. This will be added to and built upon as the Creative Curriculum takes shape and is evaluated on a termly and yearly basis.

English

ICT is a major contributor to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They have the opportunity to develop their writing skills by communicating with people electronically. They learn how to improve the presentation of their work by using desktop publishing software.

Mathematics

Many ICT activities build upon the mathematical skills of the children. Children use ICT in mathematics to collect data, make predictions, analyse results, and present information graphically. They also acquire measuring techniques involving positive and negative numbers, and including decimal places. ICT will also support mathematics through the regular use of dedicated maths learning programs by pupils in our ICT Suite, on laptops/chrome books and on iPads.

Science

Children use ICT in science to collect data, make predictions, analyse results, and present information graphically. ICT can also be used to research information on science topics.

Creative Curriculum

ICT supports all curricular work. By embedding ICT into the Creative Curriculum, it can be enhanced with the use of desktop publishing, digital imaging, graphic development, music exploration, data handling as well as information retrieval to support the children's skills and learning.

Personal, Social and Health Education (PSHE) and Citizenship

ICT contributes to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse (e-Safety) of ICT, and they also gain a knowledge and understanding of the interdependence of people around the world.

ICT will also support the curriculum through:

- The use of interactive whiteboards / touch screens to deliver specific curriculum experience, with direct pupil and teacher involvement in achieving learning objectives.
- The use of other ICT media to extend curriculum lessons including monitored use of the Internet.
- The use of wider-community linkages, specifically, our interactions with Burton college and the Lego computing studio.

Special Needs

The setting of suitable learning challenges, responding to pupils' diverse learning needs and overcoming potential barriers will ensure all pupils are included in the learning process. When progress falls significantly outside the expected range, the child may have special educational needs.

Intervention through School Support and adaptation of equipment will also support SEN children. In some instances the use of ICT has a considerable impact on the quality of work that children produce; it increases their confidence and motivation.

Resources

Our school has a fully networked laptop/ computer available in every classroom for individual work as well as the teaching laptop/ computer. The laptops/Chrome books have a network of computers for groups of children to learn skills and apply them in integrated tasks. The school has Internet access for computers. Along with the computers, the school has the following:

Hardware
Interactive whiteboards; iPads; Laptops; Chromebooks and tablets; colour printers; scanner; digital cameras; digital video recorder; electronic keyboards; calculators; robots; control interfaces, Lego spike prime kits and flexible neck cameras/visualisers.

Software
A word processing package; painting/drawing software; clip art; a music composition package; a multimedia programme; spreadsheets/database program; control program; simulations.

- The staff library contains specific publications for staff use and a storage cupboard in the ICT Room contains other resources.
- New resources are ordered each year and the Subject Leaders seek to maintain essential resource levels.
- Each class has a workstation that the class is encouraged to use for integrated work.

Extensive whole staff training by Teachers and Teaching Assistants helps us to deliver quality learning and teaching of the National Curriculum. This remains a feature in the Continuing Professional Development of all staff (reviewing and revising the effectiveness of teaching and learning).

Health and Safety

All general requirements of the county and school Health and Safety policy should be considered appropriate to the teaching and learning of the Computing Curriculum. Specific consideration should be made to help pupils to:

- Limit sessions in front of electronic display equipment
- Recognising hazards and consequential risks
- Controlling risks to themselves and others
- Manage their immediate environment to ensure Health and Safety

A risk assessment should be carried out when engaged in activities new to the organiser/planner. We make staff and pupils aware of risk associated with whiteboard projectors.

Assessment

Agreed assessments for Computing are as follows:

- In the Foundation Stage assessment will be based on agreed expectations based on Foundation Stage Profiles
- Each child will have an I can statement list to take them through the school, the children will be able to identify and date when they achieved this statement with the support of the teacher
- Annual report will include summative statement about Computing

Review and Monitoring

The co-ordinators will monitor lessons/book trawls both formally and informally throughout the year. ICT/The Computing Curriculum may feature as part of Performance Management. Planning is kept on the system for monitoring. Pupil work is stored on the ICT server in class and pupil folders. Some subject specific work will be printed out to form part of a display.

This policy will be reviewed and updated in line with changing technology and practice by the subject leaders, who will draw on the experiences and ideas of colleagues and take account of new developments.

Report to SLT / Headteacher / Governors.

Policy to be reviewed March 2026

See also
Online Safety Policy
AUP
E-Safety
Child Protection
Email & Internet Use Policy
Inclusion Statement
Behaviour Policy