



Mission Statement: Valuing Potential; Creating Opportunities

Hartsbourne Primary School

Computing Policy

To be read in conjunction with Teaching and Learning Policy, Assessment Policy, Equal Opportunities policy, Health and Safety Policy, Child Protection Policies, Acceptable Use Policies, GDPR Policies and Data Protection Procedures

POLICY REVIEW PROCEDURES

This policy has been agreed by staff and Governors and will be regularly reviewed as part of the school monitoring cycle.

DATE OF POLICY:	JUNE 2019	DATE OF NEXT REVIEW:	SEPTEMBER 2021
MONITORED BY:	SUBJECT LEADER AND SENIOR LEADERSHIP TEAM	TEACHING & LEARNING COMMITTEE	

VISION

Hartsbourne Primary School is an inclusive learning community where we are:

Building a strong school **community**; inspiring pupils to gain the **confidence**, resilience and independence to become **life-long learners**, making the best **progress** possible and creating happy memories.

RATIONALE

Computing is an integral part of the National Curriculum and a key skill for everyday life. Computers tablets, laptops, digital and video cameras and programmable items, are but a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information.

At Hartsbourne Primary School we recognise that computing and technologies can enthuse and motivate pupils, who are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to become computing proficient.

AIMS AND OBJECTIVES

We aim to provide a relevant, challenging and enjoyable computing curriculum for all pupils. We will enable pupils to:

- Use computing as a tool to enhance learning throughout the curriculum.
- Learn about and respond to new developments in technology.
- Develop their understanding of how to use computing and the internet safely and responsibly.

Objectives

We want pupils to be able to:

- Understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication.
- Analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.
- Be responsible, competent, confident and creative users of digital devices and the Internet.



TEACHING AND LEARNING

At Hartsbourne we use the HertsforLearning Computing Scheme of Work which is organised into four age phases; EYFS, Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2, and is separated into nine strands (see Appendix 1).

Staff will use a variety of teaching styles in order to deliver Computing to pupils. These styles range from whole class, group, pairs, individual learning and there may be modelling demonstrations, videos and slide shows.

Early Years Foundation Stage

It is important in the Foundation Stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. The early years learning environment will feature computing scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to explore using non-computer based resources such as walkie-talkie sets as well as programmable toys, digital cameras and recordable devices.

Key Stage 1 and Key Stage 2

There are six learning themes within a phase, designed to fit with other curriculum areas and a balance in each year across all five computing strands (see Appendix 1). Objectives are provided along with a suggested independent task. An objective may be used for more than one session or objectives may be combined. Open-endedness of tasks is encouraged, and the objectives are structured to allow for wide differentiation from support to challenge.

It is intended that Computing is taught through weekly discrete sessions, with pupils having additional opportunities to embed what they have learnt in other curriculum contexts, in addition to the ad hoc use of technology to support learning in other subjects.

EQUAL OPPORTUNITIES

All pupils have opportunities to use technologies and we ensure that we have appropriate software that considers language skills and needs of all pupils. All SEN pupils have access to the whole curriculum and are supported according to individual needs; this ensures that SEN pupils have every opportunity to develop a sound range of computing skills. Pupils with additional learning needs also have access to, where appropriate:

- Visual prompts to engage and increase attention.
- Real objects to explore and manipulate.
- Symbols/visual aids for key vocabulary.
- Opportunities for repetition, to consolidate and reassure.
- Support where necessary to develop new skills

All pupils regardless of whether they have access to a computer at home or not are given opportunities to develop skills and complete set tasks according to the curriculum. Pupils with home access may be encouraged to generalise skills learnt in class and use them at home.

The school has an 'Acceptable use of the Internet' Policy, which Parents/Guardians are asked to agree to, before their child uses the Internet.



ROLES AND RESPONSIBILITIES

The Subject Leader has responsibility to ensure that computing is planned effectively and differentiated at the appropriate level for everyone; this is done through monitoring of children's work, teachers' plans and teaching observations. The Subject Leader also has responsibility for checking that there is progression in the development of Computing for both pupils and the staff team and is available to advise and help any member of staff with teaching and learning.

The Subject Leader will regularly undertake skills audits before offering opportunities for CPD.

It is the responsibility of staff to ensure that all children have equal access to Computing lessons that are delivered in line with this policy.

The IT Support Team from Bushey Meads are available to support with software and hardware issues, including advice on purchases and resources and should be contacted through the Helpdesk.

The school is responsible for ensuring GDPR regulations are adhered to and ensuring that copyright regulations are not infringed.

ASSESSMENT

Assessment of Computing skills and knowledge must be consistent with the marking and feedback policy and in accordance with the School Improvement Plan. An agreed format is followed when monitoring teaching and time for feedback is made in order to give support to all members of staff.

All pupils will save work into individual folders on the server, and these are carried through to the next class at the end of the year. This enables the Subject Leader and SLT to undertake a work scrutiny and assess progress.

HEALTH AND SAFETY

All computers, laptops, projectors, interactive whiteboards etc should be logged off and switched off at the end of each day and it is the responsibility of each class teacher to ensure that there are no trailing wires or damaged plugs, through a close visual check of equipment, each day.

Laptops must be collected and returned to the trolley under the supervision of an adult. Laptops must go back into the same space each time. The laptop trolley is stored overnight in the PPA room. This room is kept locked.

Memory sticks

Memory sticks and memory cards must be removed from USB ports by clicking on the eject icon (right click) to safely remove hardware. This prevents damage to the hard-drive and the memory stick.



Appendix 1: HfL Scheme of Work

Create	Select and use different digital applications on a range of digital devices to create, organise, manipulate, store, retrieve, review and present varied digital content (word-based, still and moving image, sound etc.) for specific purposes. Combine digital materials from different sources to create digital content to achieve given goals. Increasingly understand how the devices and systems they use work.
Digital research	Become discerning, safe and responsible users of online technologies; derive data from a number of sources, including pictorial; use digital research tools effectively, understanding broadly how they work and considering factors affecting search results; evaluate the resulting data, refining and editing it to make it their own. Increasingly understand intellectual property and copyright, crediting the sources they use appropriately.
Info ... info	Collect, organise, evaluate and analyse data to present as information. Use varied tools including branching and flat file databases, and spreadsheets. Develop use of graphs, charts and tables, including pictograms, bar and pie charts, line graphs, Carroll and Venn diagrams and mind maps. Use dataloggers and sensors to monitor changes in environmental conditions and collect and analyse data, using it in other applications. Develop models to explore patterns and test hypotheses. Investigate how data is collected, analysed, combined and used in the wider world.
Digital communication	Develop an understanding of the networks and systems. Use a range of digital tools safely and appropriately for communication and collaboration to support learning in and beyond school; keep personal information secure, respect the rights of others, including their intellectual property rights, and demonstrate and promote good eSafe behaviour.
eWorlds	Develop an understanding of programming in the context of devices, automated systems, simulations and games. Relate to the creation of algorithms and the use of algorithms in program design. Investigate natural systems, beginning to use abstraction to support them in making comparisons with digital systems. Apply logical reasoning and precision to program design, using decomposition to break problems into smaller parts. Design, create, test, debug and refine algorithms and programs for specific purposes. Use a range of programming languages in both onscreen and physical environments, employing sequence, repetition, selection and variables appropriately. Program inputs and outputs in physical and onscreen systems, including inputs from sensors and environmental monitoring. Predict the outcome of programs, using this to support good programming practice.
Ongoing aspects	The following aspects are essential elements of the scheme and are embedded across all strands and learning themes:
eSafety and appropriate use	Become safe, effective and respectful users of technology and online systems, recognising both acceptable and unacceptable behaviour and knowing how to respond when they have concerns. Respect copyright and ownership, asking permission before using or uploading any materials and crediting sources. Understand the need to keep their personal information secure and to respect the rights of others to personal privacy. The scheme supports pupils in becoming eSafety champions keeping themselves and others safe in school and at home. The Herts Smile and Stay Safe logo  indicates a linked eSafety aspect
Computer science	Although the main computer science elements are included in the eWorlds and Info ... Info strands, understanding related to this important aspect is embedded across the learning themes. A double chevron  indicates a linked computer science aspect.
Real world application of technology	This is emphasised across the scheme. Pupils are encouraged to develop their curiosity about technology used in school, at home and in the wider world. They investigate how technologies work. They research how different examples have developed over time and consider how they might develop in the future.



The following tables demonstrates learning themes sequence across KS1 and 2.

Key Stage 1	Autumn	Spring	Summer
Year 1 or Mixed Year 1/2 (Year A)	Let's create	Visual information	Discovering programming
Year 2 or Mixed Year 1/2 (Year B)	Getting creative	Starting research	Messages and virtual worlds

Lower Key Stage 2	Autumn	Spring	Summer
Year 3	Keeping informed	Bringing images to life	Developing communication
Year 4	Accuracy counts	Programming and games	Authoring

Upper Key Stage 2	Autumn	Spring	Summer
Year 5	Data matters	Robotics and systems	Sound works
Year 6	Staying connected	Information Models	Morphing image



GUIDELINES

ACCESS TO INFORMATION TECHNOLOGY

All classrooms have their own pc connected to a whole school client/server network. In addition to this each class has use of the mobile ICT suite of 15 Laptops as a resource. There are desk-top computers in every class, the library and PPA room. Pupils may use the library computer under supervision.

Pupils and staff have access to the network at levels according to age and professional responsibilities. Each class has their own logon name and password to give them the appropriate level of access. Individual members of staff also have individual usernames and passwords to give them a higher level of access. Children may have their own email names and passwords for use on the intranet only. Internet access is carefully monitored by an adult.

HARDWARE RESOURCES

Equipment needs have been identified through liaison with whole staff, subject leader and Head Teacher. The effectiveness is monitored through classroom observations.

Equipment Includes:

- 7 Interactive Smartboards
- 1 hall projector
- Class visualiser
- 16 laptops stored in a trolley
- 10 Chromebooks
- 15 i-pads stored in a charging trolley
- 1 Cam-corder
- 1 Acti-vote System
- Shared colour printer
- Teacher laptops
- Teacher I-pad (1 per year group)
- Office Chromebook
- Caretaker I-Pad
- 1 Data Logger

SOFTWARE RESOURCES

Appropriate needs and software are identified through liaison with individual members of staff/Primary ICT Consultant and classroom observations. Software purchases are acquired through liaison between teachers, ICT manager and the Head teacher.

At present, we are fully resourced for full coverage of the ICT curriculum. Software is kept in the ICT safe in the dining room and should be returned to the correct place after use.

MANAGING RESOURCES

It is the responsibility of the Subject Leader in conjunction with the Head teacher to assess the acquisition of resources and how they should be deployed. When appropriate, new resources may be presented through whole staff training sessions, or weekly meetings, in order to demonstrate the use of the new resources and offer advice in the correct use of hardware.



TECHNICAL SUPPORT

If staff require support, the ICT subject leader will give advice and work with the teacher whenever possible. Technical support is provided by the Bushey St James Trust.

It is the responsibility of the Subject Leader and the staff team to provide curriculum support where necessary.

NETWORK MANAGEMENT

It is the responsibility of the IT Team at BSJT and Head teacher to ensure that the computing system is regularly backed up and virus scans are updated regularly, on all school computers including the laptops. It is the responsibility of individual teachers to ensure their laptop is made available to the IT team when needed so they can be regularly updated.

The IT Team (in conjunction with the Office Manager) are responsible for the back up of data on the school system.