

Haresfield Church of England Primary School

'Trusting in God, together we live, learn and grow.'



Computing Policy

Rationale

At Haresfield we believe that IT and computing should be used as a tool to support and also inspire learning. It will become second nature to the children and adults and enhance their understanding of the world and how it works. We believe in a vibrant education which prepares children for their future lives, computing is a key component of this. A high quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology and as active participants in a digital world.

Introduction

The use of information and communication technology is an integral part of the national curriculum and is a key skill for everyday life. computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information. At Haresfield Church of England Primary we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make this provision.

Aims

The school's aims are to:

- Provide a relevant, challenging and enjoyable curriculum for computing for all pupils;
- Meet the requirements of the national curriculum programmes of study for computing;
- Use IT and computing as a tool to enhance learning throughout the curriculum;
- To respond to new developments in technology;
- To equip pupils with the confidence and capability to use computing throughout their later life;
- Develop the understanding of how to use IT and computing safely and responsibly.

The national curriculum for computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication;
- 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;

Objectives

EYFS

It is important in the foundation stage to give children a broad, play-based experience of IT in a range of contexts, including outdoor play. Computing is not just about computers. Early years learning environments should 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 'paint' on the whiteboard or drive a remote-controlled toy. Recording devices can support children to develop their communication skills. This is particularly useful with children who have English as an additional language.

By the end of 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

By the end of 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

Provision

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible IT infrastructure by investing in resources that will effectively deliver the strands of the national curriculum and support the use of IT and computing across the school. Teachers are required to inform the necessary persons of any faults as soon as they are noticed. Resources if not classroom based are located in the Quiet Room/Zippy Zone or in the Office.

All classrooms have an interactive touchscreen panel with one of them being able to be moved for use in other parts of the school site.

All teachers have access to a laptop to help in the fulfilment of their roles and responsibilities as a teacher at Haresfield Primary School.

We have one laptop trolley with 17 laptops to be used by children individually, in pairs or small groups under the supervision of an adult.

There are also a range of iPads and other tablets as well as other technology which can be used to support the use of IT in the computing curriculum and in cross-curricular activities.

Planning

As the school develops its resources and expertise to deliver the IT and computing curriculum, modules will be planned in line with the national curriculum and will allow for clear progression. Modules will be designed to enable pupils to achieve stated objectives. Staff will follow medium term plans with objectives set out in the national curriculum with modules planned and blocked across critical pathways for each term. A minority of children will have particular Teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include but is not restricted to; G&T children, those with SEN or those who have EAL. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities.

Assessment and record keeping

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key IT and computing skills each term. Assessing computing is an integral part of teaching and learning and central to good practice.

Assessment can be broken down into;

Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

Summative assessment should review pupils' capability and provide a best fit level. Use of independent open ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work. Children will be assessed in each part of the curriculum on a termly basis and recording this as part of agreed assessments for all foundation subjects. This information should be provided to the head teacher and subject co-ordinator in a timely manner.

There should be an opportunity for pupil review and identification of next steps.

Monitoring and evaluation

The head teacher and subject leader are responsible for monitoring the standard of the children's work and the quality of teaching in line with the school's monitoring cycle. This may be through lesson observations, work book scrutiny or looking at other data for the subject. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. We endeavour to allocate time for the task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

The role of the co-ordinator

- Subject coordinators who are responsible for producing an IT and computing development plan and for the implementation of the computing policy across the school.
- To offer help and support to all members of staff (including teaching assistants) in their teaching, planning and assessment of computing.
- To maintain resources and advise staff on the use of materials, equipment and books.
- To monitor classroom teaching or planning following the schools rolling programme of monitoring.
- To monitor the children's computing work, looking at samples of different abilities.
- To lead staff training on new initiatives.
- To attend appropriate in-service training and keep staff up to date with relevant information and developments.
- To keep parents and governors informed on the implementation of computing in the school.
- To liaise with all members of staff on how to reach and improve on agreed targets
- To help staff to use assessment to inform future planning.

Security

Use of IT and computing will be in line with the school's 'acceptable use policy/E-safety policy'.

Parents will be made aware of the 'acceptable use policy' when children start at the school and will be kept regularly informed and updated about it.

All pupils and parents will be aware of the school rules for responsible use of IT and computing and the internet and will understand the consequence of any misuse.

Equal Opportunities

We ensure IT is accessible to all children in full accordance with the school's Equal Opportunities Policy.

Cross curricular links

As a staff we are all aware that computing capability should be achieved through core and foundation subjects. Where appropriate, computing should be incorporated into all subjects. Computing should be used to support learning in other subjects as well as develop computing skills.

Parental involvement

Parents are encouraged to support the implementation of computing where possible by encouraging use of computing skills at home during home-learning tasks and through the school website. They will be made aware of e-safety and encouraged to promote this at home.