Computing and Information Technology Curriculum Policy

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 Hanley St. Luke's Primary School 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 ICT and computing for all pupils;
- meet the requirements of the national curriculum programmes of study for ICT and computing;
- use ICT 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 ICT and computing throughout their later life;
- to develop the understanding of how to use ICT 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;

Rationale

The school believes that ICT and computing:

- Gives pupils immediate access to a rich source of materials.
Can present information in new ways which help pupils understand access and use it more readily.
Can motivate and enthuse pupils.
Can help pupils focus and concentrate.
Offers potential for effective group working.
Has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

EYFS

It is important in the foundation stage to give children a broad, play-based experience of ICT in a range of contexts, including outdoor play. ICT is not just about computers. Early years learning environments should feature ICT 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 particular 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.

Resources and access

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

ICT and computing network infrastructure and equipment has been sited so that:

- Every classroom from EYFS to Yr6 has a computer connected to the school network and an interactive whiteboard with sound and DVD facilities
- Every classroom has a dedicated i-pad mini to use and there are also 9 i-pads that can be used as needed that are kept in the IT suite.
- Pupils may use ICT and computing independently, in pairs or alongside a TA or in a group with a teacher.
- The school IT facilities are managed by an outside company called Core Education.

Planning

As the school develops its resources and curriculum to deliver the ICT and computing curriculum; modules are planned in line with the national curriculum and will allow for clear progression. Modules are designed to enable pupils to achieve stated objectives. Pupil progress towards these objectives will be recorded by teachers as part of their class recording system. KS2 pupils are taught by a specialist teacher and Ks1 and EYFS pupils are taught by their regular staff. The subject leader and KS1/EYFS staff follow medium term plans in line with the school planning format. 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 more able and talented children, those with SEND 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. During any teaching activities staff should bear in mind that special arrangements could be made available to support individual pupils. This is in line with the school's inclusive ethos.

Assessment and record keeping (Teaching and Learning and Assessment Policy)

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 ICT and computing skills each term. Assessing ICT and computing work is an integral part of teaching and learning and central to good practice. It should be process orientated – reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of the concepts of ICT and computing. As assessment is part of the learning process it is essential that pupils are closely involved.

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 description (working towards, working at or working beyond expected level). Use of independent open ended tasks, provide opportunities for pupils to demonstrate capability in relation to the term's work.

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

Monitoring and evaluation

The subject leader is responsible for the standard of the children's work and the delivery of the ICT/Computing curriculum. Review of subject standards and teaching quality follow the standard school performance management procedures. 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.

The role of the Subject Leader

- The subject leader is responsible for producing an ICT and computing development plan and for the implementation of the ICT and computing policy across the school.
- To offer help and support to all members of staff (including teaching assistants) in their use of ICT
- To maintain resources and advise staff on the use of materials, equipment and books.
- To monitor the children's ICT/Computing work, looking at samples of different abilities.
- To manage the ICT budget.
- 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 have enthusiasm for ICT/computing and encourage staff to share this enthusiasm.
- To keep parents and governors informed on the implementation of ICT in the school.

Security

- The ICT and computing technician /coordinator will be responsible for regularly updating anti-virus software.
- Use of ICT 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' at school entry and ks2.
- All pupils and parents will be aware of the school rules for responsible use of ICT and computing and the internet and will understand the consequence of any misuse.

Cross curricular links

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

Parental involvement

Parents are encouraged to support the implementation of ICT and computing where possible by encouraging use of ICT and computing skills at home during home-learning tasks e.g. Bug Club and Times Tables Rock Stars. They will be made aware of e-safety through newsletters and Dojo communications as well as available information on our website. Periodically, we offer information sessions to support parents in keeping their children safe at home.

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