

Hanley St Luke's Church of England Academy

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COMPUTING POLICY

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Subject lead	Laura Salt
Governor/Committee (where applicable)	For Statement of Principles Full Board

Our Vision:

Jesus said: 'I have come that they may have life and have it to the full.'

Promoting *life-long learning*

Developing *life-giving relationships*

Exploring *life-enhancing faith*

Inspiring *life-enriching aspiration*

This policy outlines the teaching, learning, organisation and management of computing at Hanley St Luke's C of E Primary Academy.

At Hanley St Luke's our Mission is to:

- Promote Christian belief and practice and to encourage the moral and spiritual development of all people in our school.
- Develop in each person a sense of self-worth and the necessary qualities to become a full and valuable member of British society
- Encourage the full academic potential of each child.
 - In our school we promote honesty, courtesy, kindness, perseverance and respect. We celebrate all our many differences and diversity, believing each individual is special and valued by God.

Computing 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. 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.

What is 'Computing'?

The National Curriculum Purpose of Study states that:

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.

Whilst the Computing Curriculum has an increased focus on Computer Science including developing pupils' programming skills and their understanding of what happens 'behind the scenes', it is important that they also continue to develop their Digital Literacy and e-safety capability and our school curriculum is designed to reflect this. E safety is a fundamental part of our curriculum and it is offered to both children and parents at regular points throughout the year.

Aims

The school's aims are to:

- provide a relevant, challenging and enjoyable curriculum for computing and for all pupils;
- meet the requirements of the national curriculum programmes of study for computing.
- to respond to new developments in technology;
- to equip pupils with the confidence and capability to use computing throughout their later life;
- to develop the understanding of how to use technology safely and to be responsible citizens online.

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 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 computing in a range of contexts, including outdoor play. Early years learning environments feature technology scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities to 'paint', write their name, mark make and draw 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.

Resources and access

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

Computing network infrastructure and equipment has been sited so that:

☐ Every classroom from EYFS to Year 6 has a computer connected to the school network and an interactive whiteboard.

- Every classroom has a dedicated iPad mini to use and there are also iPads that can be used as needed that are kept in the computing suite.
- The school computing facilities are managed by an outside company called Core Education.
- A variety of resources, software and programming equipment is used throughout the school such as Beebots, Micro bits and Data Loggers.
- Class dojo is also used as a form of communication between staff and parents through messages, video, links and pictures.

Curriculum and Planning

Since May 2022, we have been following The Teach Computing Curriculum. The Teach Computing Curriculum is structured in units. The Teach Computing Curriculum uses the National Centre for Computing Education's computing taxonomy to ensure comprehensive coverage of the subject. The units for key stages 1 and 2 are based on a spiral curriculum. This means that each of the themes is revisited regularly and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units within a theme in consecutive years. The Teach Computing Curriculum acknowledges that physical computing plays an important role in modern pedagogical approaches in computing, both as a tool to engage pupils and as a strategy to develop pupils' understanding in more creative ways. Additionally, physical computing supports and engages a diverse range of pupils in tangible and challenging tasks. Online safety is a crucial part of the computing curriculum and the safety of pupils at our school. The Teach Computing Curriculum shows the links between the content of the lessons and the national curriculum and Education for a Connected World framework. These references have been provided to show where aspects relating to online safety, or digital citizenship, are covered within the Teach Computing Curriculum. Online safety is also taught through PSHE and SMSC lessons.

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 computing skills each term. Assessing 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 computing. Both formative and summative assessment are carefully planned into lessons through the Teach Computing programme and progression and challenging is clearly build in to every lesson. 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.
- Teachers also use the app Seesaw to record pupils' works and as a method of pupils evidencing independent 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 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 a 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 use of technology.
- To maintain resources and advise staff on the use of materials, equipment and books.
- To monitor the children's computing work, looking at samples of different abilities.
- To manage the computing 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 computing and encourage staff to share this enthusiasm.
- To keep parents and governors informed on the implementation of computing in the school.

Security

- The computing technician (Core) will be responsible for regularly updating anti-virus software.
- Use of technology 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 technology and the internet and will understand the consequence of any misuse.

Computing lead – Laura Salt

Policy updated January 2024