



Hoole St. Michael Church of England Primary School

Computing Policy

Member of staff responsible: T Pitcher

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Date approved by the Chair of SEC: May 2021

Date to be reviewed: May 2024

Mission Statement

Christ's love is in everything we do at Hoole St Michael. Our creative and high-reaching Church of England Primary School is safe, loving and supportive. We encourage the building of good relationships and friendship through respect, tolerance and understanding. Within our Christian family, where parents are our partners in all aspects of school life, we aim to inspire a love for learning within each and every child.

'A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.' -
Computing programme of Study, DfE, 2013

At Hoole, we believe that Computing is an integral part of preparing children to live in a world where technology is continuously and rapidly evolving, so much so that children are being prepared to work with technology that doesn't even exist yet. For this reason, we feel that it is important that children are able to participate in the creation of these new tools to fully grasp the relevance of and the possibilities of emerging technologies thus preparing them for the world of work.

1. Purpose

The Computing in the National Curriculum expectations split the teaching and learning of Computing into three strands (Computer Science, Digital Literacy and Information Technology). It is therefore important that children recognise the difference between what makes each one relevant to their future, as well as their everyday lives. High quality teaching of Computing, from Reception through to Year 6, utilises a combination of practical lessons and theory lessons designed to promote discussion and nurture understanding, which are also relevant to other areas of the curriculum such as PSHE and Citizenship.

This policy reflects the values and philosophy in relation to the teaching and learning of and with ICT. It sets out a framework within which teaching and non-teaching staff can operate and give guidance on planning, teaching and assessment. This policy should be read in conjunction with the scheme of learning for Computing that sets out in detail what children in different year groups will be taught and how ICT can facilitate or enhance learning in other curriculum areas.

This document is intended for:

All teaching staff

All staff with classroom responsibilities

School governors

Parents

Inspection Teams

Copies of this policy are kept centrally and are available from the office and the subject leader.

2. Aims

Computer Science

- To enable children to become confident coders on a range of devices.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

Digital Literacy

- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupils' spiritual, moral, social and cultural development.

Information Technology

- To develop ICT as a cross-curricular tool for learning and progression.
- To promote learning through the development of thinking skills.
- To enable children to understand and appreciate their place in the modern world.

3. British Values within Computing

Children at Hoole St Michael Church of England Primary School demonstrate the following values whilst learning about Computing by:

Democracy

- Listening to everyone's ideas in order to form a majority.
- Working as part of a team and collaborating to use computing devices effectively.

Rule of Law

- Developing knowledge of lawful computing behaviours.
- Demonstrating respect for computing laws.

Individual Liberty

- Taking responsibility for our own computing behaviours.
- Challenging stereotypes and bias.
- Exercising rights and personal freedoms safely through knowledge of E-safety.

Respect and Tolerance

- Showing respect for other cultures when undertaking research using computing devices.
- Providing opportunities for pupils of all backgrounds to achieve in computing.

4. Objectives

In order to develop the Computing and ICT capability and understanding of each child we will provide through our planning:

- Computing through all three strands taught within the classroom.
- Continuity throughout the school to ensure that experience and skills are developed in a cohesive and consistent way.
- Access to computers, netbooks and ipads within class or in designated communal areas.
- Experience of a variety of well-planned, structured and progressive activities.
- Experience cross-curricular links to widen children's knowledge of the capability of computing including safe use of the Internet and other digital equipment.
- Opportunities for children to recognize the value of computing and ICT in their everyday lives and their future working life as active participants in a digital world.
- By doing this we will fulfil the requirements of the National Curriculum.

5. Equal Opportunities, Inclusion, Special Educational Needs and Disabilities (SEND)

It is our policy to ensure that all children, regardless of race, class or gender, should have the opportunity to develop computing and ICT capability. We aim to respond to children needs and overcome potential barriers for individuals and groups of children by:

- Ensuring that all children follow the scheme of learning for Computing.
- Providing curriculum materials and programmes, which are in no way class, gender or racially prejudice or biased.
- Providing opportunities for our children who do not have access at home to use the school computers/Internet to develop independent learning.
- Providing suitable challenges for more able children, as well as support for those who have emerging needs.
- Responding to the diversity of children's social, cultural and ethnographical backgrounds.
- Overcoming barriers to learning through the use of assessment and additional support.
- Communication or language difficulties by developing computing skills through the use of all their individual senses and strengths.

- Movement or physical difficulties by developing computing skills through utilising their individual strengths.
- Behavioural or emotional difficulties (including stress and trauma) by developing the understanding and management of their own learning behaviours.

6. Assessment

As in all other subjects, children should be assessed and appraised of their progress in understanding and applying of computing skills. We assess children's work in computing by making informal judgements as we observe them during each computing lesson. Teachers will evaluate progress of the children within their class informally during lessons. They will do this by asking questions, setting differentiated activities that may extend and stretch capable children, carrying out observations whilst the children are working and **the printing** out of children's work. Notes will be written onto plans to support teachers when planning future lessons, ensuring that we tailor the teaching to the needs of the children in that class. Work is saved in **individual** pupil folders in **a** class folder on the shared drive. At the end of a unit of work, the teacher makes a summary judgement about the work of each pupil **and** if they have yet to obtain, **have** met or exceeded the unit objectives. We use this as a basis for assessing the progress of the child at the end of the year.

The computing subject leader keeps samples of children's work in a portfolio. These demonstrate what the expected level of achievement is in computing for each age group in the school. Staff should keep or save examples of pupils' work and sufficiently detailed records to form a judgement on each pupil's level of attainment at the end of each key stage. Formative assessment occurs on a lesson-by-lesson basis determined by the aims.

7. Health and Safety (See Health and Safety Policy)

The school takes very seriously and is aware of the health and safety issues surrounding children's use of ICT. We ensure that pupils have a safe environment in which to learn. We ensure effective filters are in place to safeguard pupils. As such, we will ensure that:

- All fixed and portable appliances in school are tested by an approved contractor every twelve months.
- **It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be pat tested before being used in school. This also applies to any equipment brought in to school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people.**
- **All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment is reported to the computing leaders and office manager who will arrange for repair or disposal.**
- E-safety is discretely taught each term by class teachers, there is also a link on our school website to direct parents to further information on how to keep children safe online.

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- Children learn about rights and responsibilities when using the Internet.
- Children should not put plugs into sockets or switch the sockets on.
- Trailing leads should be made safe behind the equipment.
- Liquids must not be taken near the computers.
- Magnets must be kept away from all equipment.
- Online safety guidelines are set out in the online safety policy & AUP.

8. Security, Legislation, Copyright and Data Protection

We ensure that the school community is kept safe by ensuring that:

- The school technician is responsible for regularly updating anti-virus software.
- The use of ICT and computing will be in line with the school's Acceptable Use Policy (AUP).
- All staff, volunteers and children must sign a copy of the schools AUP.
- Parents are made aware of the AUP at school entry.
- All children are aware of the school rules for responsible use on login to the school network and will understand the consequence of any misuse.
- Reminders for safe and responsible use of ICT and computing and the Internet will be displayed in all areas.
- Software/apps installed onto the school network server must have been vetted by the teacher for suitable educational content before being purchased and installed. No personal software is to be loaded onto school computers. Further information can be found in the school's Data Protection policy.

9. Curriculum Development and Organisation

Our Scheme of Learning is based on the National Curriculum guidelines. We also refer to the medium term plans for computing in the Lancashire scheme of work, linking them to our own curriculum plans and topics, wherever possible.

We carry out curriculum planning in computing in three phases (long-term, medium-term and short-term). The long-term plan maps the computing topics studied in each term during each key stage and the children study computing topics in conjunction with other subjects. Some elements of computing, however are discrete and do not link to topics. We will teach the knowledge, skills and understanding set out in the National Curriculum (2014) through the corresponding programme of study.

As the basis for our medium-term plans, we provide details for each project. Because we have mixed-age classes, we carry out the medium-term planning on a two-year rotation cycle. By so doing, we ensure that children have complete coverage of the National Curriculum, but do not have to repeat topics.

The class teacher writes an outline for each computing lesson (short-term plans). These list the specific learning objectives of each lesson.

Individual laptops in trolleys support the development of Computing and ICT capability by enabling independent learning; encouraging research, and allowing for the creative use of ICT in all subjects. Digital projectors, interactive whiteboards and visualisers are positioned in all classrooms and are used as a teaching and learning resource across the curriculum. An immersive classroom further enhances the

children's learning, emotive and language experiences and responses through cross-curricular exploration of ideas and themes.

Our school website showcases some of the wealth of experiences that the children are involved in as well as providing help and supportive information for the school community.

10. Teaching and Learning

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.

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Foundation Stage:

We teach computing in reception class as an integral part of the topic work covered during the year. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the computing side of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. Computing makes a significant contribution to the ELG objectives of developing a child's knowledge and understanding of technology - 'Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes'.

Across Key Stage 1 and Key Stage 2, our children will use technology to:

- Learn Programming by using programmable toys, program on screen, through animation, develop games (simple and interactive) and to develop simple mobile apps.
- Develop their computational thinking through filming, exploring how computer games work, finding and correcting bugs in programs, creating interactive toys, cracking codes and developing project management skills.
- Develop computing creativity by illustrating an eBook, taking and editing digital images, shooting and editing videos, producing digital music, creating geometrical art and creating video and web copy for mobile phone apps.
- Investigate computer networks through finding images using the Web, researching a topic, finding out how the school network operates, editing and writing code, creating an e-safety micro-site, and planning the creation of mobile apps.
- Communicate and collaborate by producing a talking book, communicating clues, use email, produce wikis, create and write blog pages and design interfaces for apps.

- Understand the need for productivity as a life skill through creating a card electronically, record bug hunt data, create surveys and analyse results, record and analyse weather data, create virtual spaces and research the app market.

Teacher's planning is differentiated to meet the range of needs in each class. A wide range of teaching and learning styles are employed to ensure all children are sufficiently challenged. Children may be required to work individually, in pairs or in small groups according to the nature of the task. Different outcomes may be expected depending on the ability and needs of the individual child.

11. Internet Safety

Internet access is planned to enrich and extend learning activities across the curriculum. However, we have acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies both in school and outside. An Online safety policy has thus been drawn up to protect all parties and rules for responsible Internet use. To further ensure the safety of the children we will teach each class the rights and responsibilities of using the Internet.

12. Roles and Responsibilities

The head teacher, in consultation with the Computing leader and staff will:

- Determine the ways in which Computing and ICT supports, enriches and extends the curriculum.
- Decide on the provision and allocation of resources.
- Ensure that Computing and ICT is used in a way that achieves the aims and objectives of the school.

There is a designated Computing leader to oversee the planning and delivery of Computing and ICT within the school through:

- Leading the development of the subject ensuring high standards in Computing as a National Curriculum subject are maintained.
- Ensure that all National Curriculum statutory requirements are being met with regard to the use of Computing within curriculum subjects.
- Facilitating the use of Computing across the curriculum.
- Providing and organising training to keep staff skills and knowledge up to date.
- Advising colleagues about effective teaching strategies.
- Managing equipment and advising on the purchase of resources.
- Monitoring the delivery of the Computing curriculum and reporting to the Head Teacher on the current status of the subject.
- Ensuring E-safety guidelines are adhered to within the school, as outlined in the E-safety Policy.
- Auditing resources within the subject.
- Supporting staff in developing high standards within the subject.
- Leading the review of the subject policy.
- Keeping up to date with developments in the subject at local and national level.

- Ensuring that actions described in the School Improvement Plan are implemented.

The Class Teacher:

Each class teacher has a responsibility to:

- Plan and teach appropriate and creative Computing activities which will enthuse and inspire pupils and ensure progression in skills.
- Monitor and record their pupils' progress.
- Retain some evidence of pupil's Computing work.
- Ensure E-safety guidelines are being adhered to as outlined in the E-Safety Policy.

13. Monitoring

Whole school coordination and support is essential to the development of Computing and ICT capability however, it is the responsibility of each individual teacher to plan and teach appropriate Computing and ICT activities and assist the leader in the monitoring and recording of pupil progress in the subjects.

Monitoring termly enables the subject leader to gain an overview of Computing and ICT teaching and learning throughout the school. This will assist the school in the self-evaluation process identifying areas of strength as well as those for development. In monitoring the quality of Computing and ICT teaching and learning, the subject leader will:

- Observe teaching and learning in the classroom.
- Hold discussions with teachers and children.
- Analyse children's work
- Examine plans to ensure full coverage of the Computing and cross-curricular ICT requirements.
- Regular reports are made to the governors on the progress of computing provision.
- This policy will be reviewed every three years or in the light of changes to legal requirements.

14. Home School Links

Our school website promotes the school and children's achievements as well as providing information and communication between the school, parents and the local community. Class Dojo is used to keep parents up to date and to share children's achievements in a more accessible way. Texts and/or emails are sent to parents as reminders or to inform instead of sending letters home with children.

15. Deployment of Computing/ICT Resources

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible pc system 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 IT and computing lead of any faults as soon as they are noticed who will then coordinate with the IT technician.

- Every classroom has a laptop connected to the school network and an interactive whiteboard with sound, DVD facilities.
- There are 3 laptop trolleys in school containing 30 laptops with internet access available to use in classrooms.
- There is a shared bank of 10 ipads
- We have other programmable resources such as bee bots.
- The school has technical support from APEX every fortnight with Remote Access support.
- The school halls have ceiling mounted projectors and a retractable screen, which are also linked to the school network.

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15. CONCLUSION

The Computing Policy addresses the issues relating to equal opportunities, children with special educational needs, the health and safety of pupils and staff and teaching and learning by incorporating the principles, values, aims and objectives in the following school policies:

- Equal Opportunities
- Special Needs
- Health and Safety
- Teaching and Learning
- Gifted and Talented

This computing policy will be reviewed by the computing subject leader.

Date for next review of this document- May 2024

This policy was approved by the Governing Body on May 2021

Signed..... Date..... (Chair of SEC)

Signed..... Date:..... (Headteacher)