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Holy Trinity Church of England (Aided) Primary School

Policy Statement

Computing

The Best for Every Child - a Unique Child of God

At Cookridge Holy Trinity Church of England (A) Primary School we serve the community by providing a happy, secure and caring Christian environment where all are valued and respected. We pride ourselves on being friendly and welcoming. We believe in the uniqueness of the individual as a child of God and recognise the range of contributions that each can make.

We provide for the spiritual, emotional, physical, mental and social development of the whole child, as a child of God. We seek to foster self-esteem and instil a sense of responsibility to others and the world around them through the teaching of our Christian Values.

We are committed to the pursuit of excellence, and the school curriculum aims to offer all children a broad and balanced, relevant and differentiated curriculum which provides consistency and continuity of teaching throughout the school, enabling every child to maximise their potential.

We work in partnership with parents, the local church, the wider community and other schools to provide an education of the highest quality.

Written by:	Mr March
Date:	October 2019
To be reviewed:	October 2021

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Computing Policy

1. Aims and objectives

1.1 Computing is changing the lives of everyone. Through teaching Computing we equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. IT skills are a major factor in enabling children to be confident, creative and independent learners.

1.2 The aims of Computing:

- Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to connect, organise and manipulate data effectively.

2. Teaching and learning style

2.1 As the aims of Computing are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. At times we do give children direct instruction on how to use hardware or software in 'skills' lessons but we often use ICT capabilities to support teaching across the curriculum. So, for example, children might research a history topic by using a specific iPad app, or they might investigate a particular issue on the Internet. Children who are learning science might use the computer to model a problem or to analyse data. We encourage the children to explore ways in which the use of ICT can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about etc.

2.2 We recognise that all classes have children with widely differing abilities in Computing. This is especially true when some children have access to ICT equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

• setting common tasks which are open-ended and can have a variety of responses;

• setting tasks of increasing difficulty (not all children complete all tasks);

• grouping children by ability in the room and setting different tasks for each ability group;

• providing resources of different complexity that are matched to the ability of the child;

• using classroom assistants to support the work of individual children or groups of children.

3. Computing curriculum planning

3.1 The school uses the national curriculum as the basis for its computing planning. Further to this, the school uses the Chris Quiqley Essentials specific curriculum.

3.2 Computing should be taught and planned as discrete lessons. Computing will often be taught/covered in other subjects – this should be reference to in that specific lesson plan but not as a replacement for specific computing 'skills' lessons.

3.3 In Key Stage One children should have the opportunity to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs
- Use logical reasoning to predict the behaviour of simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private and recognising common uses of information technology beyond school.

3.4 In Key Stage 2 Children should have the opportunity to –

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selections and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works, 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.
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely (see internet policy).
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

4. Foundation Stage

4.1 We teach Computing in reception classes 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 aspects of the children's work to the objectives set out in the Technology Early Learning Goal. The provision allows the children to have continuous opportunities to access to use the computers, laptops, ipads, bee-bots and a digital cameras.

5. The contribution of Computing to teaching in other curriculum areas

5.1 Computing contributes to teaching and learning in all curriculum areas. For example, coding work links in closely with instructional language in Literacy and Mathematics, and work using databases supports work in mathematics, while the Internet proves very useful for research in humanities subjects. Computing enables children to present their information and conclusions in the most appropriate way.

5.2 English

Computing is a major contributor to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They have the opportunity to develop their writing skills by communicating with people over the Internet, and they are able to join in discussions with other children throughout the world through the medium of video conferencing. They learn how to improve the presentation of their work by using desk-top publishing software. This will taught through our Essential learning objective – To Connect.

5.3 Mathematics

Many Computing activities build upon the mathematical skills of the children. Children use Computing in mathematics to collect data, make predictions, analyse results, and present information graphically. They also acquire measuring techniques involving positive and negative numbers, and including decimal places. This will taught through our Essential learning objective – To Collect.

5.4 Personal, social and health education (PSHE) and citizenship

Computing makes a contribution to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of ICT, and they also gain a knowledge and understanding of the interdependence of people around the world.

6. Teaching Computing to children with special needs

6.1 At our school, we teach Computing to all children, whatever their ability. Computing forms part of our school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. In some instances, the use of ICT has a considerable impact on the quality of work that children produce; it increases their confidence and motivation. When planning work in Computing, we can take into account the targets in the Support Plan. The use of ICT can help children in achieving their targets and progressing in their learning.

7. Assessment and recording

7.1 Teachers assess children's work in Computing by making informal judgements as they observe them during lessons. Pupils' progress is closely monitored by the class teacher and at the end of each term through the Depth of Learning Website. Children will be assessed within their Milestone as either Basic, Advancing or Deep.

7.2 The Computing leader monitors samples of the children's work in an online portfolio which the class teachers update. This demonstrates the expected level of achievement of computing for each age group in the school. Teachers will upload examples of Basic, Advancing and Deep work into the Computing Assessment file on the server.

8. Resources

8.1 At present, the school has 30 laptops, 45 iPads and 16 Virtual Reality (VR) headsets. The laptops are stored on a moveable charging unit, which is to be moved only by adults to the classroom. IPads are stored in a portable charging unit and are to be booked out using the timetable in the server room. The VR headsets are also stored in a portable charging unit that has an ultra violet light to clean the germs. They should be booked out on a timetable and should be transported using the carry case. There is at least one computer in each classroom for the class teacher.

8.2 Along with the computers, laptops, iPads and VR headsets the school has the following:

<u>Hardware</u>

- colour printers
- scanner
- digital blue cameras
- video player
- listening centres
- calculators
- Beebots
- Probots
- Microphones
- Easi-speak Microphones/recording device

<u>Software</u>

- Microsoft Office processing packages
- Scratch
- Kudo
- painting/drawing software;
- clip art;
- Sketchup
- a music composition package;
- a multimedia programme;
- spreadsheets/database programmes;
- control programme; logo
- simulations;

- CD-ROMs.
- RWI speed sounds
- Windows Movie Maker
- Espresso
- 2create

9. Monitoring and review

9.1 The monitoring of the standards of the children's work and of the quality of teaching in Computing is the responsibility of the Computing subject leader and the Leadership Team. The Computing subject leader is also responsible for supporting colleagues in the teaching of Computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The Computing subject leader regularly discusses the computing situation with the Headteacher and Governors and provides an annual summary report in which she evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. During the year, the Computing subject leader has specially-allocated time for carrying out the vital task of reviewing samples of the children's work and for visiting classes to observe the teaching of Computing.

Policy reviewed: October 2019 by Mr March
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