Through God We Achieve

OUR VISION AT ST. STEPHEN'S CE PRIMARY SCHOOL

To deliver outstanding education in a caring community, with God at its centre

'Turning your ear to wisdom and applying your heart to understanding'.   Proverbs 2:2

OUR VALUES:

Joy - we provide a happy and stimulating environment, rooted in Christian values.

Excellence - we are a church school committed to the highest standards in everything we do.

Relationship – we work hand-in-hand with St Stephen's Church as well as our parents and carers.

Respect - we enable our children to deepen or realise their own faith and respect the freedom of others in their beliefs.

Nurture – our children are cared for spiritually, morally, intellectually, physically, socially and emotionally.

COMPUTING

Action	Policy to be reviewed as required and at least annually		
	Owner	Date	Completed
Updated	Luke Faith	09/11/23	
Next Review	Luke Faith	09/11/24	
Approved	Michael Schumm and SLT	09/11/23	

Our Intent:

Rationale

In a world where technology is evolving at a rapid pace, at St Stephen's CE School we are aiming to develop the Computing skills of our children as best as we can. We do this by providing a carefully-planned, balanced curriculum covering all three strands of the subject (Computer Science, Digital Literacy and Information Technology), as well as providing the opportunity to use the technology we have invested in for cross-curricular purposes. As a result, our aim is to have pupils confident in using technology effectively and responsibly both in and out of school.

Pupils are taught to become confident in their use of technology in a way which supports their mental wellbeing and are exposed to opportunities to broaden their horizons in using technology well.

Aims & Objectives

Our Computing lessons aim to provide opportunities for the children to:

- Be taught a challenging, relevant and enjoyable curriculum for Computing.
- Meet (and wherever possible, exceed) the requirements of the National Curriculum programmes of study for the subject.
- Use technology (Chromebooks, iPads and laptops) to enhance learning in a cross-curricular fashion.
- Respond to new developments in technology.
- Develop a clear understanding as to how to be safe and happy online.

Implementation:

Approaches to Teaching and Learning

As mentioned earlier, Computing, in the National Curriculum, is split into three strands:

1) Computer Science
2) Digital Literacy
3) Information Technology

We teach all three strands separately in our planned units, as we feel it is important that children recognise the difference between each and what makes each one relevant to them and their futures. To teach the strands, our planning includes a mixture of 'plugged' (i.e. work completed on computers / tablets) and 'unplugged' lessons (not completed on computers / tablets). Our 'unplugged' sessions, which are designed to encourage discussion and nurture understanding, will often have strong cross-curricular links to RHE.

Here is a brief summary of all three strands:

1) Computer Science. This strand prepares children to understand what Computer Science is, as well as introduce key concepts such as algorithms. By Key Stage 2, this knowledge is taught at a deeper level, encouraging children to learn about controlling physical and virtual systems, decomposition, debugging and variables.

2) Digital Literacy. This prepares children to use technology safely, particularly when online, by giving them the key knowledge to deal with inappropriate behaviour. This is done in a sensitive fashion, and aims to empower children as to how to make safe, responsible choices online, as well as what to do when something upsets them or seems suspicious.

3) Information Technology. This strand prepares children to work with computers and tablets, and how they can be used for productivity. This includes using spreadsheets, word processors, art software and emailing / messaging services. Attention is also paid to computing fundamentals such as saving and retrieving work.

Planning

Computing is a foundation subject in the National Curriculum. Our school uses the national scheme of work as the basis for its curriculum planning and this is then elaborated upon by our partners at London Computing SoW, which results in plans that actually go into greater depth than the National Curriculum requires. These plans are then altered by individual teachers depending on the needs of their particular cohort.

Our medium-term plans are carefully chosen from London Computing SoW's units of work to ensure breadth of coverage across all targets outlined in the national scheme of work. These plans define what we teach and ensure an appropriate balance of distribution of work across each term. The subject leader, Luke Faith, looks at these plans with the class teachers, offering advice on how to tailor them to suit the needs of their cohort.

Lessons are planned so that children complete activities that build upon the children's prior learning. While there are opportunities for children of all abilities to develop their skills, knowledge and understanding in each activity area, there is planned progression built into the scheme of work, so that the children are increasingly challenged as they move up through the school.

Within the Early Years Foundation Stage, it is important to give the children a play-based experience of computing in a range of contexts, including outdoor play. EYFS learning environments should feature computing scenarios based on experience in the real world, with children gaining confidence and language skills through opportunities to 'paint' on class interactive whiteboards, using tablets or programming toys. Recording devices (such as iPads, which are used by educators within the Key Stage,) can support children to develop their communication skills. This is particularly useful for those who have English as an additional language.

By the end of Key Stages 1 and 2, children will be expected to be able to meet a range of targets taken from the national scheme of work and expanded by London Computing SoW to better accommodate progression across the three strands.

We teach Computing to all children, whatever their ability, as Computing forms part of the school curriculum policy to provide a broad and balanced education to all children. Teachers provide learning opportunities that are matched to the needs of children with learning difficulties and work in the subject takes into account the targets set for individual children in the Education Healthcare Plans or other medical advice, such as occupational therapy or physiotherapy as appropriate.

We also use a cross-curricular approach through subjects, linking topics where this provides valuable learning. For example, aspects of Computing can be included in Maths (e.g. computational thinking strategies) and English (e.g. writing clear, concise and detailed instructions.) Humanities can provide a fertile ground for use of Information Technology-related productivity software, as can Art.

Assessment

Our class teachers assess children's work in their Computing lessons through a combination of work completed and observations of skills displayed. They record the progress made by the children against the learning objectives for the lesson. Immediate feedback is offered during the Computing lessons to help the children reflect on their skills and adapt them accordingly.

At the end of a unit of work, teachers make a judgement against the London Computing SoW lesson objectives and scheme of work to give them a final grade. This information is recorded and used to adapt future plans which cater to the needs of all the children in the class. These records also enable the teacher to make an annual assessment of progress for each child as part of the end of year report to parents / carers.

The monitoring of standards of children's work and the quality of teaching in Computing is the responsibility of the Computing subject leader (Luke Faith) along with the Senior Leadership Team.

Monitoring and Review

The Computing subject leader will complete drop-in sessions as part of the school's monitoring cycle as well as have meetings / discussions with class teachers regarding progress made and any areas of improvement required.

To keep up-to-date, the Computing subject leader receives CPD from computing coordinator network meetings, key points from which are passed onto teachers. The Computing subject leader gives at least one annual training session to all class teachers to ensure they are comfortable with teaching the subject.

The Computing lead will monitor assessment at the end of each term to check that all that is being taught coincides with the National Curriculum, identifying key strengths and areas for development. Semi-regular meetings with members of the London Computing SoW team allows time for addressing next steps with regards to planning and assessing.

Resources

The school understands the need to maintain, update and develop its resources to effectively deliver all subjects in the National Curriculum and support the use of Computing across the school. Teachers are required to inform our technician of any faults as soon as they are noticed. Resources, if not classroom-based, are spread around the school.

Key computing infrastructure within the school is as follows:

- We have a dedicated server room, well-ventilated and with no access to anyone but SLT, the Computing Coordinator and our technician. Furthermore, this is connected to a back-up power supply, giving us the best possible opportunity to avoid network and internet dropout.
- Every classroom from Nursery to Year 6 has a PC connected to the school network / internet and an interactive whiteboard with AV facilities. All of these whiteboards have been upgraded over the past few years, ensuring the best possible learning experience for the children across all subjects.
- There are three Chromebook trolleys in school containing 31 laptops, each with internet access available to use in classrooms for Computing and other lessons.
- There is one laptop trolley containing 30 laptops, each with internet and school network (configured to a special 'Pupil Share' drive) for Computing and other lessons.
- We have an iPad trolley containing 16 iPads with appropriate teaching apps installed on them and internet access.
- Each class from Year 1 to Year 6 has an allocated Computing slot across the week for teaching of the subject. The remaining timeslots are available for booking for cross-curricular use.

Health and Safety (Including E-Safety)

The general teaching requirement for health and safety applies in this subject. We encourage the children to consider their own safety and the safety of others at all times. We expect them to treat all hardware respectfully and with care.

A progressive e-safety curriculum, threaded throughout our Program of Study and Scheme of Work, ensures that all pupils are able to develop skills to keep them safe online.

Opportunities for learning about e-safety are part of our Computing and RHE lessons and are reinforced whenever technology is used.

Clear rules for e-safety are agreed by each class at the beginning of each year. Parents sign an Acceptable Use Agreement when a pupil first starts at the school. These are then signed annually by pupils.

The school has an e-safety policy in place that details how the principles of e-safety will be promoted and monitored, both at school and at home.

Staff training has also been conducted to ensure that we are compliant with the online safety changes / additions contained within KCSIE 2023.

Impact:

At St Stephen's we ensure that all children from Years 1-6 receive at least one hour per week of well-planned, high quality Computing.

In the Early Years Foundation Stage, computing-related activities are integrated into the curriculum, with constant opportunities given to the children to engage with various hardware and software.

Throughout the academic year, our children also have the opportunity to participate in computing-related activities at our before- and after school clubs. Children are encouraged to attend these clubs to have fun, continue to practise and consolidate what they have been learning in class and also have the opportunity to works with children from different year groups.

Enrichment Opportunities

At St Stephen's, we offer a wide range of enrichment opportunities to reinforce, support and develop Computing skills and appreciation throughout the school.

These include:

- An annual 'Coding Day', designed to encourage and celebrate use of technology throughout the school.
- Our school 'Digital Leaders' scheme, where children who display a keen interest in computing are used to help manage and develop the technology we have at school.
- Yearly online safety meetings for parents and carers, which encourage a two-way conversation between them and teachers.
- Whole-school assemblies per year (at least termly), led by the Computing Coordinator, designed to promote online safety.

Equal Opportunities

Our school is an inclusive school. We actively seek to remove the barriers to learning and participation that can hinder or exclude individual pupils, or groups of pupils.

The Computing Coordinator works closely with the SENCo to understand who the children who may need extra support will be. In doing this, we appreciate that it may be necessary to adapt the delivery of the Computing curriculum for some pupils. We teach Computing to all children, regardless of their ability, as the subject forms part of the National Curriculum to provide a broad, balanced education for all children.

Through the teaching of Computing, we provide suitable learning opportunities that allow all children to make progress. We do this by setting suitable learning challenges, as well as using a 'Pathways' document that was commissioned by us and created by London Computing SoW, to set appropriate learning challenges, responding to each child's individual needs. In terms of using technology around the school, we can use this to support SEN children on a one-to-on basis where children receive additional support. Additionally, we will use adapted resources wherever possible such as visual timetables, different coloured backgrounds and screen printouts.

We also recognise that to overcome gender stereotypes, at St Stephen's we offer a range of computing activities for all pupils and strongly encourage everyone to participate in Computing-related activities in and out of classrooms, encouraging all children to pursue a career in STEM.