

**COMPUTING POLICY**

At St Stephen’s CE Primary School, our Christian values run through our school like a golden thread and enable our children to flourish and ASPIRE in life. Our Christian vision: ‘*for with God, nothing is impossible’ (* Luke 1 : 37), helps support and guide our whole school community in striving to beat our previous best endeavours.

Throughout the year, we re-focus on a Christian Value in order to keep God in the centre of our lives. By linking these to key events within the Christian calendar our children will all take turns in leading key collective worships for our whole school community at St Stephen’s Church, once a year.

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| --- | --- | --- | --- | --- | --- |
| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Thankfulness | Respect | Hope | Forgiveness | Love | Trust |

A screen shot of a computer

Description automatically generated

The key principles of our ASPIRE vision support our decision-making process at St Stephen’s CE Primary School for the curriculum. With these principles in place, our children are able to know more and remember more across development of our broad and balanced curriculum.

**Luke 1:37 "For with GOD nothing shall be impossible”**

**What is Computing?**

Introduction

This policy expresses the school’s purpose for the teaching and learning of Computing. It sets out the aims; planning of the curriculum and assessment and monitoring. It was developed in the Spring Term 2024 by the Computing subject leader Mrs Mistry through discussion with teachers and the leadership team and based on Computing programmes of study (POS): key stages 1 and 2 (DfE September 2014). It will be reviewed in the Summer Term 2026.

Purpose

We believe that an engaging and motivating Computing curriculum will enable our learners to:

• Use computational thinking and creativity to understand and change the world.

• Make deep links with mathematics, science and design and technology.

• Build knowledge of principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

• Become digitally literate – able to use, express themselves and develop ideas through information and communication technology

**Aims**

The national curriculum for computing aims to ensure that all pupils:

* can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
* 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.

**Intent**

At St Stephen’s Primary School, we intend to deliver a Computing curriculum that allows our children to achieve ‘For with God nothing shall be impossible’ (Luke 1:37). We will provide an outstanding, rich and broad curriculum in our caring Christian environment. We aspire for all to reach out to the wider community and world, as they achieve their full potential academically, socially, culturally and spiritually. In order to achieve our vision, we intend to equip our children with the computational thinking, creativity, understanding and skills necessary to participate and achieve in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. Our children will be digitally competent and will have a range of transferrable skills. Also, we intend to instil a sense of enjoyment around using technology and to develop pupil’s appreciation of its capabilities and the opportunities technology offers to, create, manage, organise and collaborate. Due to the ever evolving and changing landscape of technology, we also intend to develop pupils’ confidence when encountering new technologies and to ensure that they are responsible online citizens.

Our curriculum will also enable pupils to meet these End of Key Stage Attainment Targets that are outlined in the National Curriculum:

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.

**Implementation**

At St. Stephen's, we use the 'Teach Computing' Scheme of Work from the National Centre for Computing Education to deliver a comprehensive and structured Computing curriculum. This scheme provides clear progression and high-quality resources, ensuring that our lessons are engaging and effectively support the development of essential computing skills. By aligning with the latest educational standards and best practices, we ensure that our pupils receive a robust foundation in computer science, digital literacy, and information technology. The rationale for using this scheme lies in its flexibility and inclusivity, allowing us to cater to the diverse needs of our students while fostering creativity, problem-solving, and critical thinking skills essential for their future success in a technology-driven world.

Within the scheme, lessons incorporate a range of teaching strategies from independent tasks, paired and group work as well as unplugged and digital activities. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils’ learning are available when required. Also, to ensure that our staff deliver a highly effective and robust computing curriculum, in each of their units Teach Computing include teacher videos to develop subject knowledge and support ongoing CPD is available online. Strong subject knowledge is vital and Teach Computing has been created with the understanding that many teachers do not feel confident delivering the computing curriculum; therefore, every effort has been made to ensure that they feel supported to deliver lessons of a high standard to ensure pupil progression.

In order to deliver the computing curriculum, class teachers have a 1-hour computing lesson timetabled each week. During this lesson, discrete computing objectives are taught and individual classes have the use of iPads and/or Chrome Books. As well as planning discrete computing lessons, teaching staff ensure that they plan opportunities for the children to use and apply their new computing skills, knowledge and understanding in cross-curricular contexts; therefore, strengthening their Digital Literacy and widening their contextual use of Information Technology.

**Early Years:**

We follow the guidelines set out in the Technology section of the Understanding the World criteria in the Early Learning Goals (ELGs).

Computing makes a significant contribution towards the ELG objectives of developing a child’s understanding of the world, enhancing their confidence using technologies.

**Online safety:**

• A progressive online safety curriculum ensures that all pupils are able to develop skills to keep them safe online.

• Opportunities for learning about online safety are part of PSHE and reinforced whenever technology is used.

• Clear rules for online safety are agreed by each class at the beginning of every year. Parents and pupils sign an acceptable user policy together when a pupil first starts at the school. The class rules are then signed annually by pupils and shared with parents.

• The Project Evolve scheme is used to ensure progression and coverage.

• The school supports the international Safer Internet Day each February and provides opportunities for pupils to consider cyberbullying as part of Anti-Bullying week in the autumn term. Whole school assemblies run by the Computing co-ordinator take place during this time.

• Opportunities are taken whenever possible to reinforce messages of a healthy life style.

• The school has an online safety policy in place that details how the principles of online safety will be promoted and monitored.

**Impact**

At the end of each unit, the children are assessed by the class teacher using the Impact task outlined in the MTP. These assessments are collated on the assessment document for each class. This document is then used over the academic year to build up a clearer picture for the teacher, who at the end of the year will undertake a 'best fit' analysis along with using their teacher judgement to give a final assessment grade for each member of the class. These are reported and logged on the assessment sheet and the child's end of year written report. At the end of each unit any 'gaps' are logged which are then addressed in subsequent weeks and unit to ensure that no gaps in 'Key Knowledge, Skills or Vocabulary' are left.  This gaps analysis will only be brief but will ensure that:

* the initials of the children with gaps are logged,
* what those gaps are, and
* when they are to be addressed.

Addressing these gaps does not just have to wait until the next unit of teaching. They can be supplementary tasks which can be done with support at home (these can often be skills or learning vocab effectively), sessions with the class TA during pockets of time during the day ie. a timeline activity, or perhaps revisited in other areas of the curriculum (ie map reading with co-ordinates and maths).

The key to retaining knowledge is to not allow it to be missed or allow gaps to grow over time. In this way we strive to develop lifelong skills and knowledge throughout the Aspire curriculum at St Stephen’s CE.

An important part of the Computing curriculum is the ability to retain and re-use knowledge, vocabulary and skills in a progressive and developmental way throughout the journey through school. Retrieval practice takes place within each lesson. It is created to re-visit key areas from the unit being covered and also other previous units for the children. It would be expected that children will receive retrieval questions explicitly from the Knowledge organisers from the units. Teachers will use this as a teaching assessment tool too as it will show the understanding and retention of the key information taught. Retrieval practice will see more able children challenged to show their ability or gaps eg. A GDS child in Y2 would be expected to show that they are capable of retaining more complex knowledge. A further guide to retrieval practice in Computing can be found in the appendices.

Summative assessment

To use summative assessment effectively, class teachers will complete their assessment grids after the impact task. Dependent upon the number of questions in the impact task, class teachers will work collaboratively to create a benchmark for the cohort. This will inform a judgement as to whether the child is working towards, expected or greater depth.

Support for SEND

Weekly Computing lessons are inclusive to pupils with special educational needs and disabilities. Within the weekly Computing lesson, teachers have a responsibility to not only provide support for children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers’ responsibility to ensure that all children are challenged at a level appropriate to their ability.

We support children with prior access of knowledge organisers to find key facts to use in their work. We provide opportunities to teach key vocabulary from the knowledge organiser to support the children’s understanding of geographical vocabulary. To cater to the needs of all pupils, staff may provide differentiated support in lessons. This is annotated onto the teacher’s medium-term plans. It is important to extract relevant information from the knowledge organisers to support the achievement of the specific learning objective.

A pupil’s English ability should not be a barrier to their computing knowledge and understanding. Therefore, we feel that at times it is necessary for pupil to verbalise their responses, have their work scribed when appropriate and visual aids are used.

Examples of how pupils with SEN are supported:

Every lesson begins with retrieval which supports links to prior learning.

* Vocabulary and knowledge from previous topics and year groups is revisited each lesson.
* Support with reading and writing
* Extra teacher/ TA support
* Children may be placed in mixed ability groups and talk partners to provide positive role models.

Examples of how Greater Depth pupils are challenged:

* Applying the learning and vocabulary with a great level of independence and accuracy.
* Differentiated, challenging work is created.
* Extension activities prepared and given to children as a challenge.

Equal Opportunities

The Governing Body and School Staff are committed to ensuring that all members of the School Community are treated fairly and with equality. We will comply with relevant legislation and implement School policy in relation to race, equality, disability equality and gender equality.

In Computing, the children are exposed to the diverse and multi-cultural world in which we live in. They are taught to respect differences in people, places and communities. We provide a quality education that is inclusive and equips our children to be lifelong learners. We encourage confident, caring and respectful citizens at all times.