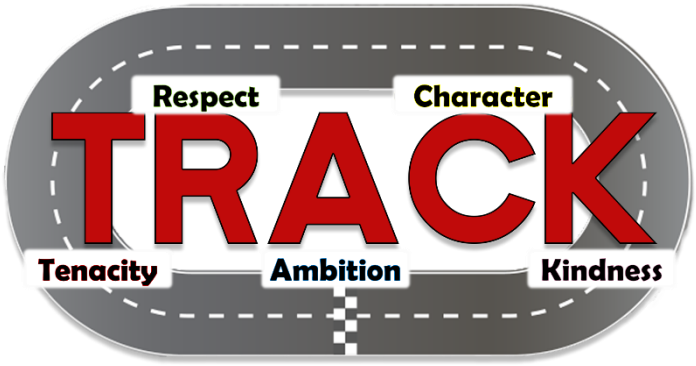
THE STONEBRIDGE SCHOOL

Computing Policy



Approved by:	
Approved on:	
Last reviewed on:	
Next review due by:	

CONTENTS PAGE

COMPUTING/ICT POLICY

INTRODUCTION

Purpose

The purpose of this policy is to describe our practice in Computing and Information / Communications Technology (ICT) and the principles upon which this is based.

Aims

Computing and ICT curriculum at The Stonebridge School promotes and develops the skills relevant to the challenges of a rapidly changing world. Our Computing/ICT curriculum's agenda is twofold; it aims to:
1) help our pupils become confident, independent and safe users of communication technologies,
2) develop children's understanding of programming, computer technologies and networks to enable them to make their first steps towards becoming contributors and active participants in the industry of technologies and communication.

INTENT

The intent of the Computing curriculum is that children are taught to become safe, competent and independent users of communication technologies, internet services and programming. Our curriculum is tailored for the needs of our children and community whilst upholding high standards for progression and achievement. To that end, we use a combination of industry-leading tools and education programmes to ensure that children are challenged at all times and that learning outcomes find pertinence and relevance in a fast-changing world. Independence and creativity are two key aspects of our intent: children are given numerous opportunities to create original content and use their expertise to select the tools appropriate for their purpose and audience.

Our LEAP curriculum principles aim to address barriers that the pupils of The Stonebridge School bring. These principles were co-constructed with key stake holders. Below is an outline of how they are implemented in the computing curriculum.

Language Rich	**Experiential**
• Key vocabulary is explicitly explained using visual cues, rehearsed together as a class, and displayed at all times on working walls when relevant. • Whole-class oral rehearsal supports precise subject specific language and deepens conceptual understanding. • Pupils are encouraged to feedback using subject specific vocabulary and during projects that they under take. • Talk Tasks are modelled by the teacher and rehearsed in mixed ability groups, providing	• Technology is shown to be all around us and pupils are encouraged to make these real-world connections in every unit. • Linked to Conceptual Understanding: pupils explore technological ideas through concrete manipulatives and pictorial models before moving to abstract representations. • Pupils are encouraged to discuss their own prior experiences of ICT and links to other subjects such as DT and history are made.

further scaffold for children's language development	• Pupils utilize real life resources such as Bee bots, computers, cameras etc. as well as online software for hands on experiences.
Ambitious • All pupils are expected to access a computing curriculum whilst at The Stonebridge School. • Lessons are designed with depth, not speed, ensuring all children master core concepts before moving on. • Enrichment and challenge are embedded so that pupils develop resilience, independence, and a belief in their own ability to achieve knowing that the future of technology will rely on them. • The curriculum meets the NC curriculum and the EAD strands of the EYFS curriculum.	**Purposeful** • We design learning that builds on what children already know, carefully addressing gaps to ensure meaningful and connected progress. • EAL and SEND learners will are still learning foundations will be exposed to a curriculum that meets their needs and challenges them.

IMPLEMENTATION

At the Stonebridge School, we teach an inclusive and ambitious curriculum that covers the knowledge and skills outlined in the National Curriculum while focusing on its three aspects:

Computer Science: this is the core of the Computing curriculum and covers principles like algorithms, programming (e.g. BeeBots/MBots and Scratch) and data representation, as well as understanding how computer systems and networks function.

Information Technology: the effective use of computing technology for functional purposes e.g. creating music, videos and animations, saving, organizing and retrieving work, blogging, manipulating data.

Digital Literacy: the safe and responsible use of technology, including Online Safety, online identity, understanding digital footprint and online risks relating to Content, Contact, Conduct and Commerce.

Computing is taught as a discreet subject for up to 1 hour a week in either our well-resourced Computing Suite or through a range of other resources or as unplugged lessons without using a hands-on digital device. Children have access to iPads, computers to compliment and enhance computing across the curriculum. These are used for research and to complete online quizzes. As a school, we also subscribe to the London Grid for Learning [LGfL] which provides the children with access to high-quality, cross-curricular learning resources that allow our pupils to consolidate and extend their learning in school and at home. In the Early Years, the children's learning of Computing is centred on play-based, unplugged activities that focus on developing their speaking and listening, curiosity, problem-solving and creativity.

We primarily use the National Centre for Computing Education's [NCCE] Teach Computing curriculum to deliver our Computing lessons. It is a spiral curriculum, which means that children revisit the same concepts at least once each academic year to ensure that these are well-embedded and that the learners acquire knowledge that builds on previous knowledge.

Teachers assess learners in each lesson and plan opportunities for them to remember more through regular retrieval practice at the start and during each lesson. Online safety is a key part of the curriculum and is a continued focus throughout the year.

Roles and responsibilities

Governors:

Governors and senior management ensure that they achieve value for money by implementing the principles of best value in evaluating, planning, procuring and using technology.

Governors may include Computing in their learning walks around the school.

Senior Leadership Team:

Senior Leaders monitor the curriculum coverage and teaching and learning through learning walks and quality assurance check the subject leader's monitoring work, use of resources and curriculum planning.

Subject leaders in other curriculum areas are responsible for recognising the links between computing and English, Mathematics, Science and foundation subjects; and planning to use these to support learning across the school.

Subject Leader:

The subject leader is responsible for monitoring curriculum coverage and the impact of learning and teaching; and assists colleagues in its implementation.

The subject leader regularly monitors the quality of curriculum delivery through pupil discussions, work scrutiny, planning review and collaboration with teachers.

The subject leader provides an annual report to governors on the impact of the Computing curriculum and how resources are being effectively deployed.

The subject leader coordinate professional development regarding ICT/Computing for staff.

The subject leader draws an action plan in line with the SDP, detailing a course of action to further improve teaching and learning.

Teachers:

The class teacher is responsible for delivering an effective Computing curriculum and integrating this into their planning for other subject areas where this is appropriate.

The class teacher is responsible for assessing children's progress and attainment and for providing support accordingly.

Units of work will be evaluated by the class teacher for effectiveness and appropriateness at the end of each unit.

The class teacher will seek support when the ICT/Computing curriculum is at risk of not being fully covered. Any areas of concern should then be discussed with the Subject Leader to ensure that solutions can be put in place at the earliest opportunity.

Support Staff:

The school receives technical support from our school IT technician, who is responsible for the maintenance of computers, printers, the school network and keeping software up to date. The subject leader liaises with the technician to ensure that the systems are running efficiently.

Pupils have the responsibility to:

- build new skills and learn to apply them creatively,
- consider problems as challenges and learn to investigate / trial solutions independently,
- keep a record of their work on the shared drive in their class folder.

Parents/Carers have the responsibility to:

- ensure children are safe when using internet services,
- discuss with children which internet services are used and the purpose served by such internet services,
- establish a clear set of rules and protocols to be followed to ensure children are using internet services safely,
- understand and keep up to date with internet safety matters.

Equal opportunities:
The school maintains its policy of equal opportunities as appropriate for Computing. Computers and related technology are made available to all pupils regardless of gender, race or abilities. The class teacher differentiates work by task, resource or support, to ensure the individual needs of more able and SEN pupils are met. The school is aware that not all pupils have the same access to computers at home and this is considered by staff in the planning and delivery of the curriculum.

EYFS:
Children will be taught how to use simple equipment in meaningful contexts. They will explore how technology aids everyday life. Computer programs and games are used to enhance learning in other subjects.

Inclusion:
At The Stonebridge School we believe that all learners are of equal value and that all pupils have the potential to achieve highly and learn effectively irrespective of ethnicity, gender, disadvantage, religion and belief, race or disability. This confidence in the learning capacity of all our pupils is reflected in curriculum design and delivery.

Pupils with Special Educational Needs & Disability (SEND):
Pupils with Special Educational Needs and Disabilities(SEND) will have access to a broad and balanced curriculum through quality first teaching. Teachers will differentiate learning according to the children's needs to ensure access to the curriculum. Children identified as having SEND may in addition have additional provisions such as personalised learning, 1:1 support and a variety of resources to meet their needs. This policy should also be read in line with the school's SEND policy and School information report.

EAL learners:
Pupils identified as new to the English language will be given every opportunity to acquire English so that they can access learning fully. Pupils' home languages will be used to aid learning where possible and relevant alongside appropriate resources selected by staff to enable pupils to engage in a rich curriculum.

Health and safety:
Key principles of online safety are taught and promoted throughout the ICT/Computing curriculum.
Equipment is maintained to meet agreed safety standards. From Foundation Stage, pupils are taught to respect and care for technology equipment.

Safeguarding:
Online safeguarding is organised around three pivotal concepts: Content, Contact and Conduct.
Online safety is taught through the Technology In Our Lives strand (TIOL), in PSHE / SRE. Skills and understanding are developed to ensure that children are safe and responsible users of internet services. Displays in classes and around the school show a clear breakdown of actions for children to follow when confronted with online bullying or anything that makes them uncomfortable. If a matter of safeguarding arises, it will be dealt with according to the safeguarding procedures of the school. Please refer to the Safeguarding Policy.

Planning:
Teachers are responsible to plan / follow a sequence of lessons using the ICT/Computing project overview. Planning is supported through the Teach Curriculum and is supplement by Common Sense for additional online safety lessons. The Teach Curriculum was developed by Computing Teachers for non-computing specialists; it follows the National Curriculum Programme of Study for Computing and the Statutory Framework for Early Years Foundation Stage.

Teaching:
Teachers will follow Rosenshine's Teaching Principles when teaching computing. At the beginning of a unit, teachers present a project and show an example of what the outcome could be. Skills are then modelled for learners who will in turn practise those skills, apply and implement them in a project of their own or which they have planned with a working group. Teachers will provide opportunities to reflect on the development of a project by leading discussions around examples of children's work, to provide feedback on what works well and what can be improved. That stage provides many opportunities to reinforce the unit's vocabulary, skills such as 'de-bugging' and problem-solving protocols.

Organisation:
There is a whole school approach in the way the teaching of Computing strands is organised across the year.
In the Autumn term, the focus is on ICT skills. Pupils learn how to record, process and present data. They also learn to use PowerPoint to create animations, presentations and displays, which is an opportunity to involve ICT with other areas of the curriculum. In the spring term, the school focusses on coding. Learners develop new skills progressively throughout the key stages and apply their knowledge to design their own creative projects.
In the Summer term, pupils focus on media creation and Digital Literacy (our TIOL strand). This provides further cross-curricular opportunities which includes writing, performing arts, PSHE and SRE.
Online Safety is taught regularly throughout the year, with key principles revisited at least once half-termly.

Resources:
Our curriculum was designed using Teach Curriculum and all software packages are included in the scheme. Hard ware and additional resources are available; staff must liaise with the IT Manager. As a school, we also subscribe to the London Grid for Learning [LGfL] which provides the children with access to high-quality, cross-curricular learning resources that allow our pupils to consolidate and extend their learning in school and at home. The subject leader keeps up to date with new technologies and reviews the school's provision, as well as maintaining the existing resources in partnership with the school's technology support provider.

Homework / Wider learning:
Online tools such as Jet2e Purplemash, Discovery Education and Discovery Education Coding are accessible by pupils in and out of school in addition to a range of resources from LGFL.

IMPACT
Learning in Computing will be enjoyed across the school. Teachers will be able to show evidence of children's learning in the subject. Our children will be confident users of a range of digital devices and technologies both software and hardware to produce digital outcomes. Our pre secondary pupils will leave Stonebridge as knowledgeable, responsible and confident users of technology.

Progress is assessed on an on-going basis using the 'I can' statements (see Computing Progression Map) for each unit. This ensures teachers are aware of progress in computer science, information technology and digital literacy. Formative assessment is used by the class teacher and teaching assistant during whole class or group teaching. Children's achievement and level of confidence is taken into consideration to inform future planning.

Monitoring and evaluation:
The Computing Leader will observe lessons, monitor planning and take work samples from across all year groups to ensure that requirements are being met and produce a lead learners progress report at the end of the term.

Appendices
- Computing Curriculum Overview
- The Teach Curriculum Road Map
- EYFS/KS1 IT Pupil Agreement
- KS2 IT Pupil Agreement