

Scargill Church of England Primary School

Computing Policy

Written: February 2022

Review date: February 2023

Intent

At Scargill, we believe that every child should be prepared for an ever changing world based around technology. It is our aim to provide all children with the skills and knowledge to use technology effectively, respectfully and safely in a positive way. We want the children to be able to use technology to be able to support their lives and education as well as having the skills to remain safe when being online.

We want the children to be curious by new technology whilst having the skills to adapt their prior knowledge to these new pieces of hardware and software. Furthermore, we want children, from reception to Y6, to be able to use vocabulary confidently when discussing and using these pieces of hardware and software. We want the children to be independent in their use of technology and be able to use it confidently and effectively, by the end of KS2.

In addition, we want to provide opportunities for the children to use their computing knowledge, skills and vocabulary in different areas across the curriculum which will further embed their learning from Reception to Y6.

National Curriculum 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 computing 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.

Key Stage 1

Pupils should be taught:

- 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.

Key stage 2

Pupils should be taught:

- 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

Primarily, we will deliver the Computing Curriculum through the use of Purple Mash. All lessons taught should match with the Curriculum Computing Overview which will link to the National Curriculum for Computing. Each year group, from Y1 to Y6, have a different amount of units to cover across the year but these are based around the strands of Digital Literacy, Computer Science and Information Technology. In addition to these units, all year groups will cover a series of lessons based on Online Safety. Online Safety will also be referred to regularly and children will be constantly reminded of these lessons. Year groups (from Reception to Y6) will cover additional Online Safety learning if they require it based around different topics (see the Online Safety policy for more information). All units need to include a combination of plugged and unplugged lessons. All unit plans need to be downloaded from Purple Mash and saved into the relevant term folder on the One Drive. All Class Teachers are required to make suitable adaptations to the planning to ensure that all learners are able to access the lessons at their year group level.

Within each lesson, the objective needs to be shared with the children. The vocabulary needed in the lesson also needs to be shared and discussed (this can be located on the knowledge organiser on Purple Mash). Children need to be able to internalise the vocabulary and to support the children in doing this, they should be strongly encouraged to create their own definitions. Class Teachers need to regularly refer to the vocabulary within the lesson and ensure all children are able to use the vocabulary and identify how it is linked to their learning.

Children will also be taught a set of non-negotiable skills in each year group. These are skills that children need to know to be able to access the curriculum confidently for example opening a document, searching for software, uploading documents onto a cloud. These skills maybe

taught discretely, however, teaching them during Computing lessons is highly recommended. These skills should then be recapped and revisited as often as required until all children are confident with them.

All learning should be saved or emailed to the class teacher to ensure that this can be accessed if required. During the Computing Lesson there should be regular opportunities for self and peer assessment.

Impact

Children have a great interest in learning Computing skills as well as learning about technology developments. Through the teaching, children are developing an understanding of why learning these Computing skills are important and will support them with their future lives in education and beyond.

Computing will not only develop the children's academic skills it will assist them in developing their problem solving, communication and team working. This will be shown through their open-ended activities, discussions about tasks using appropriate vocabulary and collaborating on ideas.

Assessment

Within each Computing lesson, class teachers will use a range of strategies to assess the children's learning. These strategies include: questioning, self and peer assessment as well as observations on the children's tasks. Class teachers will use these assessments (mainly focusing on observations) to guide future planning and to support and extend children's learning where needed.

Class teachers are not required to mark any Computing learning, but will use these observation and assessment strategies instead to obtain an overall picture of how the class are progressing.

Inclusion and Adaptation:

All children should have access to Computing lessons. Adaptations should be made to any lesson being taught to ensure it includes appropriate support and challenge to ensure all children are able to meet their potential. Challenge might be provided by the use of a more open-ended activity whilst support maybe offered by the use of scaffolding.

Monitoring and Review:

The Computing Curriculum Leader and the Class Teacher is responsible for the planning and assessment of the Computing curriculum and ensuring that these lessons are to the highest standard.

The Computing Curriculum Leader is responsible for:

- Monitoring, on a whole school level, the teaching of Computing through drop-ins, learning walks and pupil voice.
- Supporting colleagues in the teaching of computing and signposting/delivering any relevant CPD.
- Ensuring the subject is relevant and up-to-date
- Preparing and updating an SLAP (Subject Leader Action Plan) and reviewing this regularly.
- Monitoring the hardware within school and ensuring appropriate apps/websites can be accessed
- Reporting any developments to the Governors and SMT

This policy is due for review in February 2023