



Computing Policy

April 2024

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1 Aims

1.1 The aim of this document is to provide an overview of the Computing Curriculum and the programme of study across the Key Stages. The national curriculum for Computing has four main 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 programmes in order to solve 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.*

2 National curriculum

2.1 In 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.*

2.2 In 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.*

3 Information and Communication Technology (ICT) at SCPS

3.1 The use of ICT is promoted within all subjects as well as a subject within its own right. It is crucial that computing is seen as a tool that can be used across the whole curriculum and as many opportunities as possible should be taken to use applications as part of the study of other subject areas, so that it becomes embedded in relevant and realistic contexts.

3.2 We strive to achieve this by:

- *using ICT where possible to enhance children's learning in all areas of the curriculum.*
- *introducing the children to a wide range of ICT applications and tools, such as word processing, databases, graphics, programming (coding) and processing of sound and images.*
- *helping pupils acquire the skills to use appropriate ICT tools effectively, with purpose and enjoyment.*
- *equipping pupils with the knowledge of the uses, effects and limitations of ICT enabling them to evaluate the benefits of ICT and its impact on society.*
- *meeting the NC requirements as fully as possible and helping all children to achieve the highest standard of achievement.*
- *encouraging all teachers to develop an awareness of the ways in which ICT might contribute to the achievement of both their subject-teaching and their wider educational aims;*
- *encouraging all teachers to develop their own ICT confidence and competence.*
- *Encouraging children to become Digital Leaders within their classes.*

4 Planning

4.1 The school has a detailed long-term curriculum map which ensures progression of skills and capability and coverage of the Computing programme of study throughout the school. Currently planning for Computing as a subject is through the scheme 'Switched on computing'.

4.2 ICT is incorporated in the planning of each scheme of work. When planning work involving the computers the QCA schemes are closely followed, to develop ICT capability. When emphasis is placed on the subject, teachers use ICT as a support for children's learning.

4.3 During any particular planning period, 1 or 2 aspects of Computing are covered and within each of these the focus is on only 3 or 4 specific skills. These skills are highlighted on the relevant planning sheet. It is understood that other skills will feature continuously in Computing and these need not be highlighted. A balance of aspects and skills is covered in a year.

- 4.4 Differentiation is determined by the complexity of the task set, the support/independence involved and the quality and accuracy of work produced.
- 4.5 The Computing Subject Leader will ensure the Computing Programme of Study is being covered by monitoring medium term plans from the 'Switched on Computing' scheme.

5 Inset and staff training

- 5.1 Staff training needs are met by auditing staff skills and confidence in the use of ICT.
- 5.2 The Computing Subject Leader will attend courses and support and train staff as far as possible. Staff confidence and expertise is developed through regular planned training sessions provided by the Computing Subject Leader, and external agencies. Support is given, where possible, with Computing planning and teaching by the Computing Subject Leader.

6 Teaching and Learning Styles

- 6.1 The class teacher is responsible for the individual child's Computing experiences. They are expected to employ a range of teaching and learning strategies and to use their professional judgement to decide on the most appropriate.

- 6.2 These will include:

- *Using the interactive whiteboards / thin panels as tools to benefit learning in all curricular areas, for a group of pupils or to the whole class.*
- *leading a group or class discussion about the benefits and limitations of ICT with emphasis on internet safety.*
- *individual or paired work using work sheets, workbooks or help cards.*
- *collaborative writing and design work in groups.*
- *Occasionally the 'cascade' approach will be used to introduce a new feature of a piece of software or similar. This approach means that the teacher teaches a pupil or small group of pupils, and these children then go on to teach the next group and so on.*
- *When the children are working in groups, the teacher endeavours to select groupings to ensure that all children are equally involved in the task, with equal access to the computer.*
- *The activities are planned in order to allow different levels of achievement and incorporate possibilities for extension work. Teachers expect to intervene where appropriate to reinforce an idea or teach a new point.*

7 SCPS Resources

- 7.1 The school has a range of computer hardware including 5 trolleys of student laptops, multiple desktop computers in classrooms and dedicated suite of desktop computers with enough software to deliver the Computing curriculum. Every classroom has either an

interactive whiteboard or a thin panel smartboard and access to equipment including digital cameras and microscopes, Lego programmable robots, BBC microbits, Beebots, iPads, chromebooks and laptop PCs.

- 7.2 A variety of industry standard software is installed including Microsoft Office as well as many educational programmes. To ensure that copyright laws are adhered to and avoid viruses, staff, pupils and parents are not permitted to run software brought in from outside school on school machines. An audit of resources is undertaken yearly to ensure that hardware and software are kept as up to date as possible and that obsolete or broken machines are scrapped or repaired.

8 Roles and Responsibilities

- 8.1 The Head teacher is responsible for:

- *ensuring staff access to ICT.*
- *meeting statutory requirements.*
- *health and safety policy and practice.*

- 8.2 The Subject Leader is responsible for the monitoring and development of the subject throughout the school. This includes:

- *attending cluster group meetings and relevant courses*
- *working alongside colleagues at both key stages*
- *updating resources*
- *checking medium term plans and advising on best practice*
- *monitoring progression*
- *looking at project books and talking to pupils about their work*

- 8.3 The Class teacher is responsible for:

- *record keeping and assessment of pupils.*
- *ensuring equal access for all pupils.*
- *developing the ICT curriculum and its usage within other curricular areas.*

9 Time Allocation

- 9.1 Each KS2 class is allocated an hour in the ICT suite each week. Unallocated time in the suite is available for use on a first come first served basis. Children spend at least 1 hour each week focusing on Computing based activities.

10 Health and Safety

- 10.1 Children are not responsible for moving heavy equipment around the school. They may not install or load software but could be given the responsibility of switching machines on without a member of staff present.
- 10.2 Food and drink must not be consumed near ICT equipment.
- 10.3 It is the responsibility of staff to ensure that classroom ICT equipment is stored securely, cleaned regularly and that their class or themselves leave the ICT Suite clean and tidy after use.
- 10.4 An adult should always supervise children when they are accessing information via the Internet. Our service provider provides robust web filtering but staff are ultimately responsible for information accessed by pupils.

11 Assessment

- 11.1 As in all other subjects, children are assessed and appraised of their progress in understanding and applying Computing.

12 Recording and Reporting

- 12.1 Reporting to parents is through an annual written report focuses upon attitudes of the child to Computing, skills, and competence in a variety of applications. Formal summative assessment is carried out for all pupils from Year 1 through to Year 6 are given end of year sub-levels of achievement and are set targets for the next year.

13 Inclusion

- 13.1 We ensure that the curriculum is available to all pupils, with equal appropriate access regardless of sex, race, religion or ability.

14 Staff Training

- 14.1 Staff will be encouraged to attend courses either in school or provided by external agencies and will be required to review resources. The Computing Subject Leader will have access to specific training to support and develop their role.

15 Dissemination

- 15.1 The Policy is available on the school web site and a paper copy available on request from the school office.

16 Reviewing the Policy

- 16.1 This policy will be reviewed annually by the Computing Subject Leader and monitored by the Link Governor to ensure that the Policy is relevant and up to date.