Lockington CE VC Primary School

Computing Policy

March 2023

Date Policy Formally Agreed By Governors:	15.03.23.
Date Policy Becomes Effective:	15.03.23.
Review Date:	March 2026
Person Responsible for Implementation and Monitoring:	Computing Subject Leader (Naomi Trueman)

1 Introduction

This policy outlines the organisation and management of computing at Lockington CE VC Primary School. The school has adopted a whole school approach to the teaching of computing to all pupils. It has been written with regard to the requirements of the National Curriculum (2014) and the Early Years Foundation Stage Statutory Framework (2021),

It is written within the context of our Mission Statement: 'Our school is committed to working together to develop lively, enquiring minds and to promoting outstanding standards of achievement in a happy, safe and caring environment, based on Christian values, which encourage all to show respect and understanding of others.'

It has also been written in the context of our school's Christian Vision, rooted in the teachings of Jesus: 'Let your light shine before others, that they may see your good works, and glorify your Father who is in heaven' (Matthew 5:16).

It has been developed in consultation with school staff and governors. This policy should be read in conjunction with the school's Computing Progression Map.

2 The Nature of Computing

The use of computers and computer systems is an integral part of the National Curriculum. In an increasingly digital world, a wealth of software, tools and technologies exist, which can be used to communicate, collaborate, express ideas and create digital content. At Lockington CE VC Primary School, we believe that pupils are entitled to a broad and balanced education. This includes a structured, progressive, approach to learning how computer systems work, the use of IT and the skills to become digitally literate in the evolving modern digital world. Through teaching the computing curriculum, we strive to equip our pupils to become active, responsible users of technology and informed, analytical digital citizens.

3 Aims

Using the National Curriculum (2014) programmes of study for Computing and The Early Years Foundation Stage Statutory Framework (2021) as a basis, it is our aim to support pupils in learning that information technology (IT), computer science and digital literacy:

- skills and knowledge are essential to fully participate in the modern digital world;
- allow children to become creators of digital content rather than simply consumers of it;
- provide access to a rich and varied source of information and content;
- communicate and presents information in new ways, which helps pupils understand, access and use it more readily;
- can motivate and enthuse pupils;
- offer opportunities for communication and collaboration through group working, both inside and outside of school;
- have the flexibility to meet the individual needs and abilities of each pupil.

4 Teaching and Learning

In the Early Years Foundation Stage (EYFS), it is important to give children a broad, play-based experience of IT and computing in a range of contexts.

Computing is not just about computers. Early years learning environments should feature computing scenarios, based on experience in the real world, including in role play. Children gain confidence, control and language skills through opportunities such as 'programming'

other children, using directional language to find toys/objects, create artwork using digital drawing tools and controlling programmable toys, for example.

Outdoor exploration is an important aspect and, using digital recording devices such as video recorders, cameras and microphones, can support children in developing communication skills. This is particularly beneficial for children who have English as an additional language.

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.

(National Curriculum, 2014)

5 Computing Timetable

KS1 – equivalent to approximately 1-hour each week.
KS2 – equivalent to approximately 1-hour each week.

6 Computing curriculum planning

Our curriculum planning is in three phases (long term, medium term and short term). Our long-term plan maps the computing studied in each term during each key stage. Mixed age classes mean planning is on a four-year rolling programme in Key Stage 2 and a two-year rolling programme Key Stage 1, to ensure pupils have complete coverage of the National Curriculum but do not repeat topics.

Teachers plan lessons using units from Teach Computing supplemented by Purple Mash, Scratch and Barefoot Computing.

7 Curriculum organisation

The Long Term Plan outlines the units we will cover throughout Key Stage 1 in a two year rolling programme and Key Stage 2 in a four year rolling programme (See Appendix 1).

8 Recording of Computing

Due to the nature of the subject, not all work will be recorded in books. Some learning may be collated in pupils' computing books, along with learning objectives. All pupils have an individual folder on the secure 'pupil' area within the school server, in which they save work. Other methods may include posters, photographs, videos, verbal reports and group presentations.

9 The contribution of Computing to other subjects

We believe that computing should enrich and support aspects of our school's curriculum. Children are provided with further opportunities to embed and strengthen their learning of computing in other curriculum areas including, but not limited to: art, design and technology, maths and science in the form of research, presentations and data.

In addition, our commitment to online safety gives rise to much work within the Personal, Social, Health and Economic (PSHE) curriculum as pupils learn about their duties as members of online societies. They are taught about responsibility, personal safety and moral dilemmas facing them in an ever-changing online world.

10 Differentiation

We recognise that we have children of differing age and ability in all our classes, and so we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting common tasks that are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty;
- grouping children by ability/age and setting different tasks for each group;
- providing a range of challenges with different resources;
- deploying additional adults if possible to support the work of individual children or small groups.

11 Special Educational Needs and Disabilities and More Able Pupils

We believe that all children have the right to access computing, a National Curriculum Subject, as part of a broad and balanced curriculum. We provide opportunities which enable all pupils to make good progress through quality first teaching, setting suitable challenges and responding to children's individual needs. A differentiated approach operates at the planning stage, adjusting teaching and learning to suit the needs of individual pupils, including pupils who have special educational needs. Specific needs are provided for in line with the schools' SEND policy.

More able pupils are given opportunities and tasks to maximise progression and development in computing. They are encouraged to take their learning further through extension tasks and enquiry-based challenges.

12 Equal Opportunities

All pupils should have equal access to the curriculum, irrespective of particular circumstances such as race, background, gender and disability. The teaching of computing is in accordance with our policy for Equal Opportunities.

13 Assessment

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term. Assessing computing is an integral part of teaching and learning and key to good practice.
Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into:

- formative assessments, which provide the opportunity to reflect on learning in the context of success criteria. This feeds into planning for the next lesson or activity;
- summative assessment, which review pupils' ability and provide a best fit outcome. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. There should be an opportunity for pupil review and identification of next steps. Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives. Throughout a unit of work the teacher is responsible for recording information on the school tracking system. At the end of the year, we make a judgement against age related expectations. The teacher records where each child is working at, and then uses this information to plan future work. This method of recording also enables the teacher to make an annual assessment of progress for each child, as part of the child's annual report to parents and carers. We pass this information on to the next teacher at the end of each year.

14 Resources

The school continually maintains, updates and develops its resources and progresses towards consistent, compatible computer systems by investing in resources that will deliver the objectives of the National Curriculum.
Teachers are required to inform the computing subject lead of any faults as soon as they are noticed, and there is a system in place in the school office to inform our IT service provider so that faults can be addressed.
Computing network infrastructure and equipment has been sited so that:

- every classroom has an interactive whiteboard with sound, DVD and video facilities;
- there is a laptop charging cabinet in school to store and charge computers;
- internet access is available throughout the school;
- laptops and iPads are available for use throughout the school as part of computing lessons and for cross-curricular use;
- Purple Mash is available to all teaching staff and pupils;
- pupils may use IT and computers independently, in pairs, alongside a member of staff or in a group with a teacher;
- a computing governor takes a particular interest in computing in the school.

15 Computing Learning Environment

Computing and online safety are promoted throughout the school. Vocabulary and, when appropriate, work is displayed both in classrooms and in the corridors.

16 Parental Involvement

We encourage parents to be involved in the computing curriculum by:

- inviting them into school each term to discuss the progress of their child and look at their child's work;
- encouraging parents to be involved in any homework activities and making the learning objectives and the task clear and achievable;
- promoting events such as 'Safer Internet Day' through letters and on the school's website;
- sharing our learning in achievement assemblies.

17 Homework

It is our policy to provide parents and carers with the opportunity to work with their children at home. We use purchased sites such as Purple Mash. Lexia and IXL, which the pupils can access at home through personal, individual accounts.

18 Health and Safety Issues:

The school is aware of the health and safety issues involved in children's use of IT and computing. All electrical appliances in school are tested by an approved person. Staff should not bring their own electrical equipment in to school: equipment must be PAT tested before being used in school. This also applies to any equipment brought in to school by, for example, visitors running workshops, activities, etc. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use.

In addition:

- trailing leads should be made safe behind the equipment;
- liquids must not be taken near the computers;
- magnets must be kept away from all equipment;

E-Safety guidelines are set out in the E-Safety policy and Acceptable Use Policy.

19 Roles and Responsibilities

The Class Teacher's role is to:

- be responsible for teaching the school's computing curriculum to their pupils;
- provide planning and reviews for the Computing Subject Leader;
- provide samples of computing work when required;
- assess children's work to detail future planning;
- update own skills, knowledge and understanding of computing;
- identify own training needs and take advantage of training opportunities;
- keep on-going records in relation to school policy.

The Computing Subject Leader's role is to:

- lead policy development, helping to ensure the computing curriculum is being delivered in a way that meets learning objectives and inspires pupils;
- act as a consultant to colleagues on resources, visitors, curriculum, teaching and learning ideas;
- liaise with staff to form a coherent, progressive scheme of work;
- monitor and evaluate pupils' work, views, displays and teacher's planning;
- write and implement action plans;
- help to keep resources up-to-date;
- help to keep staff updated with developments in the subject;

- attend training and signpost appropriate training to staff;
- provide an annual report to the Headteacher, evaluating strengths, weaknesses and areas for improvement.

The Headteacher's role is to:
- provide support by encouraging staff and praising good practice;
- monitor teaching and learning through lesson observations and provide feedback;
- support staff development and provision of resources.

The Governing Body:
- determines, supports, monitors and reviews the school Computing Policy.

20 Review

This policy will be reviewed every three years, or earlier as required.

Member of staff responsible: Computing Subject Leader (Naomi Trueman)

Date policy written: March 2023

Date for next review: March 2026

Date approved: 15.03.23

Signed: Mrs J Cattle (Headteacher)

Signed: Dr Graham Parr (Chair of Governors)

Appendix 1:

KS1 **Cycle A (2023-24)**	**Cycle B (2022-23)**
E Safety Computing Systems and Networks - IT All Around Us	E Safety Computing systems and Networks – Technology Around Us
Creating Media - Digital Photography	Digital Painting - Creating Media
E Safety Creating Media - Making Music	E Safety Creating Media - Digital Writing
Data and Information Pictograms	Creating Media - Grouping Data
E Safety Programming A – Robot Algorithms	E Safety Creating Media - Grouping Data
Programming B- An Introduction to Quizzes	Programming B -Introduction to Animation

KS2 **Cycle A (2025-26)**	**Cycle B (2022-23)**	**Cycle C (2023-24)**	**Cycle D (2024-25)**
E Safety Digital Learning: Creating media	E Safety Information Technology Video Editing	E Safety Digital Learning: Creating media	E Safety Information Technology Video Editing
Computer Science: Programming (Sequence in Music)	Digital Learning: Network Hunt	Computer Science: Programming (Sequence in Music)	Digital Learning: Network Hunt
E Safety Computer Science: Programming with Repetition	E Safety Computer Science: Programming Events	E Safety Computer Science: Programming with Repetition	E Safety Computer Science: Programming Events
Digital Learning: Creating Media with stop frame animation	Digital Learning: Fake News	Digital Learning: Creating Media with stop frame animation	Digital Learning: Fake News
E Safety Digital Learning: Systems and Networks	E Safety Computer Science: Programming in games	E Safety Digital Learning: Systems and Networks	E Safety Computer Science: Programming in games

Behaviour Online	Information Technology Databases	Behaviour Online	Information Technology Databases