Computing Curriculum Policy

Policy Owner – Computing Lead

Policy History:

April 2024	*Policy rewritten using 'The School Bus' template.*

Contents:

Statement of intent

Lawn Primary and Nursery School understands that ICT and computing are an integral part of the national curriculum and that ICT skills are important beyond the classroom.

Computers are a valuable resource in school, benefitting the way pupils learn and helping teachers maximise their role as educators. In light of this, our school is committed to ensuring that both staff and pupils have access to the necessary facilities to allow them to enhance their learning experience. We believe that it is important for pupils and employees to be confident and competent users of computers, and other technological resources, to aid development across the curriculum.

1. Legal framework

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to, the following:

- DfE (2023) 'Keeping children safe in education 2023'
- Data Protection Act 2018
- UK General Data Protection Regulation (UK GDPR)
- Equality Act 2010
- DfE (2013) 'Computing programmes of study: key stages 1 and 2'

This policy operates in conjunction with the following school policies:

- Online Safety Policy
- Cyber Response and Recovery Plan
- Data Protection Policy
- Technology Acceptable Use Agreement for Pupils
- Technology Acceptable Use Agreement for Staff
- Equality Scheme and Inclusion Policy

2. Roles and responsibilities

The governing board will be responsible for:

- Monitoring the effectiveness of the computing curriculum.
- Monitoring the progress and attainment of pupils in computing.
- Holding the headteacher and computing subject leader to account for pupils' computing attainment and progress, and the delivery of the computing curriculum.
- Ensuring the school has appropriate filtering and monitoring systems in place on its computer system to safeguard pupils.

Overall responsibility for monitoring the teaching of computing throughout the school will lie with the computing subject leader, they will make decisions on:

- How computing should support, enrich and extend the curriculum.
- The provision and allocation of resources.
- The ways in which the need for developments in the school's computing system can be assessed and records can be kept for these developments.
- How computing can benefit the aims and objectives of the whole school.

The computing subject leader and headteacher will be responsible for overseeing the implementation and reviewing of this policy.

The computing subject leader will be responsible for:

- Monitoring the progression of teaching and learning in computing.
- Managing resources and advising staff on the use of materials.

- Supporting teaching staff to deliver the computing curriculum and monitoring the quality of teaching and learning.
- Keeping abreast of technological developments and using these to inform practice.
- Leading staff training on new computing initiatives.

Teachers will be responsible for:

- Planning and delivering lessons in line with this policy.
- Providing equality of opportunity to all pupils through their teaching approaches and methods.
- Keeping up-to-date assessment records.
- Ensuring pupils' development of skills and knowledge progresses through their learning and understanding of computing.
- Setting pupils appropriate targets based on their needs and prior attainment.
- Maintaining an enthusiastic approach to computing.
- Taking part in computing training and other CPD opportunities.

The Project manager and GHS will be responsible for:

- Maintaining and keeping computing equipment in good working order.
- Dealing with any reports of broken, damaged or faulty equipment.
- Ensuring the school's Cyber Response and Recovery Plan is adhered to.
- Carrying out checks on all computers once per term.
- Adjusting access rights and security privileges in the interest of the school's data, information, network and computers.
- Monitoring the computer logs on the school's network and reporting inappropriate use to the headteacher.
- Disabling the user accounts of staff and pupils who do not follow school policies, at the request of the headteacher.
- Assisting staff with authorised use of computing facilities, if required.
- Assisting the headteacher in all matters requiring reconfiguration of security and access rights, and all matters relating to this policy.
- Accessing files and data to solve problems for a user, with their authorisation – if an investigation is required by the headteacher, authorisation from the user is not required.

Pupils will be responsible for:

- Using the school's computing facilities appropriately.

- Being aware of the school's rules around the use of computing equipment during lessons.
- Understanding how the use of computing improves learning.

Parents will be responsible for encouraging computing skills and safe technology use at home.

3. Overall curriculum aims

The school aims to assist pupils in achieving attainment targets set out in the national curriculum. By the end of each key stage, pupils will be expected to know, apply and understand the matters, skills and processes specified in this policy.

The school will meet the general aims set out by the DfE for computing programmes of study, which means 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 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.

4. The curriculum

In Early Years, pupils will be taught to:

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play.

Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys.

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.

In KS1, pupils will 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 problems.
- 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 schools.
- 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.

In KS2, pupils will 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, and the opportunities they offer for communication and collaboration.
- Use search technologies effectively, appreciate how results are selected and ranged, 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 present data and information.
- Use technology safely, respectfully and responsibly.
- Recognise acceptable and unacceptable behaviour.
- Identify a range of ways to report concerns about content and contact.

5. Assessment

Teachers will record pupils' ability and progression through two types of assessment – formative and summative.

Formative assessments will be carried out during lessons, based on individual objects and outcomes – these assessments will be conducted informally by the class teacher.

Summative assessments will be completed at the end of every unit. These assessments will then be used for an end of year assessment for computing as a whole.

Where a pupil is not meeting the expected standard, a supportive intervention will be put in place – this could include the provision of a TA.

Computing skills and competencies will be reliably and consistently assessed and recorded as part of computing lessons, as well as across the curriculum in other subjects.

6. Teaching

The teaching of computing will ensure that pupils of all abilities are able to engage with the curriculum as effectively as possible, enhancing their computing knowledge and skills.

The skills needed for pupils to access the wider curriculum using computing will be mapped and developed to ensure that pupils can use computing applications progressively through the curriculum.

Teachers will use computing to allow pupils to investigate, solve problems, refine their work, learn from their mistakes and reflect critically.

There will be a good balance across the whole school between the high-quality use of computing to support and enhance teaching and learning, and the individual pupil's productive use of computing for their own learning.

When administering homework tasks, teachers will be sensitive to the fact pupils may not have access to a computer at home.

Computing will be used to support and extend learning beyond the school, through activities integrated with pupils' school-based learning.

7. Scheme of learning

At Lawn Primary and Nursery school We use the Teach computing scheme of work for our planning in phases 2,3 and 4, this is part of STEM learning UK. This scheme has been introduced in September 2023, after classes trialled it in the summer of 2023. This scheme offers a wide range of different software and hardware that the children are exposed to and offers clear progression and sequential steps.

Our progression map is taken from this scheme and covers four key areas: computing systems and networks; creating media; programming; data and information.

Online safety is taught alongside this as a mixture of starters and full lessons. The resources for this are taken from Project Evolve by South West Grid for Learning and The National College.

8. Equal opportunities

All pupils will be provided with equal learning opportunities regardless of their background or characteristics, in line with the school's Equality Scheme and Inclusion Policy.

To ensure pupils with SEND can achieve to the best of their ability, targets for pupils with SEND will be adapted and the delivery of the curriculum will be differentiated for these pupils.

The curriculum and targets will also be adapted for other pupils based on their needs, e.g. pupils with EAL.

Where possible, computing will be used in a specialist way to support pupils with SEND. The school will look to utilise software systems that can be modified to aid language, spelling or reading development.

The school will aim to maximise the use and benefits of computing as one of many resources to enable all pupils to achieve their full potential.

9. Resources

Lawn Primary and Nursery School acknowledges the need to continually maintain, update and develop its resources and to make progress towards consistent, compatible computer systems by investing in resources that will effectively deliver the objectives of the National Curriculum and support the use of the teach computing scheme across the school. Teachers are required to inform the Project Manager of any faults as soon as they are noticed. A service level agreement with GHSUK is currently in place to help support the Project Manager to fulfil this role both in hardware & software. Computing network infrastructure and equipment has been sited so that:

•Every classroom from has an interactive whiteboard with sound.

•Internet access is available in all classrooms.

•The laptops and iPads are available for use throughout the school day as part of computing lessons and for cross-curricular use.

•Pupils may use IT and computing independently, in pairs, alongside a TA or in a group with a teacher.

•The school has a computing technician who is in school for scheduled visits weekly, on Monday morning.

•There are Beebots, Crumbles and Microbits available for use as part of the programming units of Teach computing.

10. Online learning and safeguarding

The school recognises the importance of teaching pupils about online safety, the potential dangers of the internet and their responsibilities when using communication technology – as set out in the school's Online Safety Policy.

As part of the school's commitment to the principles outlined in the most recent version of KCSIE, the school will:

- Offer a safe online environment through filtered and monitored internet access.
- Ensure the filtering systems in place will prevent pupils from accessing terrorist and extremist materials, in accordance with the school's Online Safety Policy and the Prevent duty.
- Take care to ensure the use of filtering and monitoring does not cause "over blocking", which may lead to unreasonable restrictions on what pupils can be taught.
- Run assemblies on a termly basis about the potential dangers of the internet and how to stay safe online.
- Teach pupils about internet safety and cyberbullying during computing lessons as well as PSHE lessons.

Pupils and staff who use the school's computing facilities inappropriately will be reported to the headteacher, and the DSL where appropriate.

The governing board will ensure the school has appropriate filtering and monitoring systems in place for computing lessons and regularly review their effectiveness. The SLT and other relevant staff will have an awareness and understanding of the provisions in place and manage them effectively and know how to escalate concerns when identified.

The Project manager and GHS will keep internet filters and other safeguarding controls up-to-date and routinely check their effectiveness to avoid misuse and protect pupils.

11. Health and safety

All electrical wires and sockets, where possible, will be kept out of the way of pupils.

Visual electrical inspections will be undertaken by the Project manager on a regular basis – any other problems will be reported immediately to the Project Manager.

Pupils will be given a five-minute break if they are using the computer for more than one hour at a time.

The rules for the use of the computing equipment will be displayed in the classroom, and both staff and pupils will be expected to familiarise themselves with, and adhere to, these rules.

12. Implementation of this policy

The provision of the computing curriculum will be monitored and assessed by the Computing subject leader and headteacher.

The suitability of all computing equipment and programs will be assessed and updated, if necessary, by the Project manager to ensure they are sufficient for effective learning.

Staff will be provided with high-quality training regarding both curriculum delivery and the safeguarding issues around e-safety.

Any breach of this policy will be reported to the headteacher.

Use of the school's internet connection and network use will be recorded and monitored by the Project manager.

GHS has the ability to remotely view or interact with any computers on the school's network. The Project manager will use this to help implement this policy and to identify and solve any problems.

13. Monitoring and review

This policy will be reviewed annually by the computing subject leader and headteacher.

Any changes made to this policy will be communicated to all members of staff.

All members of staff directly involved with the teaching of computing will be required to familiarise themselves with this policy.