LORDSHIP LANE PRIMARY SCHOOL

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Computing Policy

Reviewed: Spring 2022

Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content. At Lordship Lane we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to the learning how computer systems work, the use of IT and the skills necessary to become digitally literate and participate fully in the modern world. Using technology safely is always a priority and E-Safety is taught throughout each year group. The purpose of this policy is to state how the school intends to make this provision.

Aims

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives.
- Meet the requirements of the national curriculum programmes of study for computing at Key Stage 1 and 2.
- To respond to new developments in technology .
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using IT and computing.
- To develop the understanding of how to use computers and digital tools safely and responsibly.

Legislation and guidance

This policy reflects the requirements of the National Curriculum programmes of study, which all maintained schools in England must teach. It also reflects requirements for inclusion and equality as set out in the Special Educational Needs and Disability Code of Practice 2014 and Equality Act 2010, and refers to curriculum-related expectations of governing boards set out in the Department for Education's Governance Handbook. In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the Early Years Foundation Stage (EYFS) statutory framework.

Intent

Lordship Lane Primary School's Computing Curriculum is broad and ambitious, and designed to give all our pupils, particularly those that are disadvantaged and pupils with SEND, the

knowledge and cultural capital they need to succeed in life.

Early years (see also early year's policy)
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.

By the end of key stage 1 pupils are taught to:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Use logical reasoning to predict the behaviour of simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

By the end of key stage 2 pupils are taught to:

- Design and write 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; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works 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.
- Describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Implementation

Lordship Lane Primary School's Computing Curriculum is delivered in part by Specialist teachers from Junior Jam. Their programme teaches pupils to create programs, systems and a range of content while encouraging them to express themselves and develop their own ideas. There is an emphasis on how what is learnt can be used in a future working environment, as our world is becoming increasingly rich with technology; children are learning about the possibilities and careers that may be linked with their studies. The curriculum is designed in a way that allows pupils to transfer key knowledge to long-term memory; it is sequenced so that new knowledge and skills build on what has been taught before and towards defined end points. Our key principles of implementation include:

- Teachers have expert knowledge of the subjects they teach.
- Teachers present key concepts clearly and invite appropriate discussions.
- Teachers check pupils' understanding effectively, identifying and correcting misunderstandings.
- Teachers ensure that pupils embed key concepts in their long-term memory and apply them fluently.
- Teachers enable pupils to transfer key knowledge to long-term memory, sequence the learning and ensure that it is building towards the defined end points.
- Teachers use assessment to check pupils' understanding.
- Teachers use assessment to help pupils embed and use knowledge fluently, develop their understanding, and not simply memorise disconnected facts.

Impact

The school implements a broad balanced and enriched Computing curriculum as a result:

- Pupils develop detailed knowledge and skills across the Computing curriculum and, as a result, achieve well.
- Pupils have the opportunities to regularly revisit concepts and link ideas together.
- High quality programs are used; pupils have a real love of learning.
- Pupils have access to a range of resources.
- Development of the whole child and gaining a sense of awe and wonder, pupils are happy engaged learners eager to share their learning with adults, family and class peers.
- High focus on developing specific subject knowledge, as well as the skills in each subject, pupil's progression through the Key Stages is ensured and readily exemplified; through display and case studies, performance and demonstrable achievements.
- A curriculum focusing on technology in the wider world: pupils to leave Lordship Lane Primary School able to integrate into modern British Society. Many pupils take on roles with added responsibility, such as E-Safety at school and beyond.
- Active engagement with parents, the curriculum goes beyond the classroom and promotes home study and research, parents are engaged and have ownership of the school and see it as part of the community.
- The computing curriculum being fully inclusive for all, pupils have time and opportunities to work alongside their class peers who may have learning and physical

needs, this creates a strong sense of care and inclusivity.

Resources and access

The 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 IT, computer science and digital literacy across the school. Teachers are required to inform the computing subject leader of any faults as soon as they are noticed. Resources if not classroom based are located in the computing suite. In addition the school has a laptop trolley in KS1 & KS2 with 30 laptops each. Internet access is available in all classrooms and each class has an interactive whiteboard.

Monitoring and Assessment

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through lesson observations, pupil discussion and evaluating pupil work.

Teachers assess children's work by making informal judgements during lessons. Assessment is process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. On completion of a piece of work, the teacher assesses the work and uses this information to plan future learning. Verbal or written feedback is given to the child to help guide his or her progress. Older children are encouraged to make judgements about how they can improve their own work.
Junior Jam's portal gives access to the learning objective of each lesson and feedback on children's performance including if the objective was met. Each half term a completed course evaluation on how the class has performed is also available through the portal.

The children's work is saved on the school's network and the school's Junior Jam account. Other work may be printed and filed.

Equal opportunities (see also equal opportunities policy)

We will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result, we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to computing and all staff members follow the equal opportunities policy. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

Security

We take security very seriously. As such:

- The computing technician will be responsible for regularly updating anti-virus software.
- Use of IT and computing will be in line with the school's 'acceptable use policy'. All staff, volunteers and children must sign a copy of the schools AUP.
- Parents will be made aware of the 'acceptable use policy' at school entry and ks2.
- All pupils and parents will be aware of the school rules for responsible use of IT and computing and the internet and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of IT and computing and the internet will be displayed in all computing areas.

Parental involvement

Parents are encouraged to support the implementation of IT and computing where possible by encouraging use of IT and computing skills at home for pleasure, through home-learning tasks and use of the school website. Parents will be made aware of issues surrounding e-safety and encouraged to promote this at home.