Leyland St. James Church of England School and Nursery

Computing Policy

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 Leyland St. James' 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. The purpose of this policy is to state how the school intends to make this provision. We use Purple Mash, a scheme that effectively aligns with the meets of the National Curriculum, to support our teaching of Information and Computer Science. Here at Leyland St. James' we teach online safety half termly to ensure full coverage of online safety risks. We use Project Evolve, a scheme developed to look at online safety across eight key units that effectively cover the Digital Literacy requirements of the National Curriculum.

Aims

At Leyland St. James' we aim to:

- Provide a relevant, challenging and enjoyable curriculum for IT and computing for all pupils.
- Meet the requirements of the national curriculum programmes of study for IT and computing.
- Use IT and computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use IT and computing throughout their later life.
- To enhance learning in other areas of the curriculum using IT and computing.
- To develop pupil's understanding of how to use IT and computing safely and responsibly.

The national curriculum for Computing aims to ensure that all pupils:

- Can understand and apply the fundamental principles of computer science, including logic, algorithms, data representation, and communication.
- Can analyse problems in computational terms, and have repeated practical experience of writing computer 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.

Rationale

The school believes that Information Technology, Computer Science and Digital Literacy:

- Are essential life skills necessary to fully participate in the modern digital world.
- Allows children to become creators of digital content rather than simply consumers of it.
- Provides access to a rich and varied source of information and content.
- Communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- Can motivate and enthuse pupils.
- Offers opportunities for communication and collaboration.
- Has the flexibility to meet the individual needs and abilities of each pupil.

Objectives

Early Years

It is important in the foundation stage to give children a broad, play-based experience of IT in a range of contexts, including outdoor play. IT 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. Recording devices can support children to develop their communication skills. This is particular useful with children who have English as an additional language or speech and language intervention.

Statutory Requirement of Subject Content; National Curriculum

EYFS and Nursery:

Understanding the World: Children should still be exposed to a range of technologies (e.g., programmable toys, tablets, simple software) to help them understand how things work and build early problem-solving skills.

Characteristics of Effective Learning: Early computing skills (like debugging, algorithms, and logical reasoning) are actively nurtured through playing, exploring, and critical thinking.

Digital Literacy & E-Safety: Practitioners are encouraged to guide children on the responsible use of devices and basic online safety appropriate for young learners

Key Stage One

- 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 Two

- 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

Resources and Access

The school acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible PC system by investing in resources that will effectively deliver the strands of the national curriculum and support the use of IT and computing across the school.
Teachers are required to inform the IT and computing leader/IT Technician of any faults as soon as they are noticed via the ticket system in place. A service level agreement with entrust is currently in place to help support the coordinator to fulfil

this role both in hardware & software. IT and computing network infrastructure and equipment has been sited so that:

- Every classroom from Reception to Year 6 has a laptop connected to the school network and an interactive whiteboard with sound.
- The KS2 corridor holds a charging trolley containing a class set of laptops and a charging trolley containing a class set of ipads.
- Each class teacher has a class iPad.
- Each class from Reception – Year 6 has an allocated slot for laptop/ipad use specifically for the purpose of teaching Computing.
- The staff may book laptops for cross-curricular use during free slots.
- Pupils may use ICT and computing independently, in pairs, alongside a member of staff or in a group with a teacher.
- The school has an IT technician who is in school at least twice per month.
- A governor has been invited to take a particular interest in Computing in the school.

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.

Roles and Responsibilities

The Governing Board

The governing board will monitor the effectiveness of this policy and hold the headteacher to account for its implementation and will also ensure that:

- A robust framework is in place for setting curriculum priorities and aspirational targets.
- Enough teaching time is provided for pupils to cover the National Curriculum and other statutory requirements.
- Proper provision is made for pupils with different abilities and needs, including children with Special Educational Needs and Disabilities (SEND).
- The school implements the relevant statutory assessment arrangements.
- It participates actively in decision-making about the breadth and balance of the curriculum.

Headteacher

The headteacher is responsible for ensuring that this policy is adhered to, and that:

- All required elements of the Computing Curriculum, and additional provision which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met.
- The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed by the governing board.
- Where appropriate, the individual needs of some pupils are met by permanent or temporary disapplication from all or part of the National Curriculum.
- The school's procedures for assessment meet all legal requirements.
- The governing board is fully involved in decision-making processes that relate to the breadth and balance of the curriculum.
- The governing board is advised on whole-school targets within the School Development Plan (SDP) in order to make informed decisions.
- Proper provision is in place for pupils with different abilities and needs including International New Arrivals (INA) and children with Special Educational Needs and Disabilities (SEND).

Computing Lead

Leaders of Learning in close liaison with the Senior Leadership Team (SLT) will ensure that the school curriculum is implemented in accordance with this policy by:

- Monitoring in line with the school's Monitoring and Assessment Timetable.
- Attending and disseminating relevant continuing professional development (CPD) courses.
- Devising and implementing a subject specific action plan in line with the school's SDP.
- Sharing effective practice.
- Supporting staff, including Newly Qualified Teachers (NQTs).
- Raising the profile of and championing their subject within school and the wider school community.
- Analysis of data.
- Updating Computing policies to reflect changes.
- Keep parents and governors updated on the implementation of Computing in school.

Teaching Staff

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning computing and using their knowledge, skills and understanding of Computing across the curriculum. They will plan and deliver the requirements of the Comouting curriculum at Leyland St. James'. We set high expectations for our pupils and provide opportunities for all to achieve. The class teacher's role is a vital role in the development of computing throughout the school and will ensure continued progression in learning and understanding, and create effective learning environments. The class teacher will also:

- Secure pupil motivation and engagement.

- Provide equality of opportunity using a range of teaching approaches and techniques.
- Use appropriate assessment techniques and approaches.
- Set suitable targets for learning as outlined in the inclusion policy.
- Maintain up to date assessment records.

Intent

Within our ever-changing and technological world, Leyland St James' CE Primary School understand the importance of teaching Computing from a young age. Our Computing curriculum aims to equip children to use computational thinking and creativity, to understand and change the world. We intend to motivate and inspire children through lessons that engage and challenge all learners.

Our curriculum, which is supported by Purple Mash for Computer Science and Information Technology and Project Evolve for Digital Literacy, is designed to deepen knowledge and develop skills, ensuring effective progression within each aspect of Computing, across all year groups.

We acknowledge that future generations will rely heavily on their digital skills in order to support their progress within their chosen career paths. Whilst ensuring they understand the advantages and disadvantages associated with online experiences, we want children to develop as respectful, responsible and confident users of technology, aware of measures that can be taken to keep themselves and others safe online.

Implementation

Our scheme of work is in line with the National Curriculum providing progression and a breadth of knowledge across all year groups. We prioritise and recognise online safety within each unit of our Computing curriculum providing a safe space in which pupils can navigate and interact with the digital world, whilst exploring their own personal expression and identity.

We intend to equip children with the relevant skills and knowledge that is required to understand the three core areas of Computing (Computer Science, Information Technology and Digital Literacy) and to offer a broad and balanced approach to providing quality first teaching of this subject. The strands of Computer Science and Information Technology are supported by Purple Mash, which is aligned to the National Curriculum and EYFS Framework. It provides a variety of activities, games, programs, and creative tools to help children learn. Our Digital Literacy curriculum is supported by Project Evolve which teaches online safety through eight strands which align with the 'Education for a Connected World' framework.

Computing is an integral part to a child's education and everyday life. Therefore, we intend to support our pupils to access and understand the core principles of this subject through engaging and cross-curricular opportunities.

At Leyland St James' CE Primary School, we see it as our responsibility to share real world examples of digital skills, developing fundamental concepts of computing – providing an insight into future careers and possibilities.

Assessment

Teachers assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term. Teachers can view pupil's stored work in Purple Mash to assist with assessment. There are some unplugged activities which are stored in the children's individual Computing folders. Assessing computing is an integral part of teaching & 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 are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.
- Summative assessment should review pupils' ability and provide a best fit 'level'. 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.
- We assess the children's work in computing by making informal judgments as we observe the children during lessons.
- Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they are working at the age related expectation, towards it or exceeding the expectations of the unit.

Monitoring and Evaluation

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 delivering Computing are responsible for making their own evaluations as set out above. Governors monitor coverage of National Curriculum subjects and compliance with other statutory requirements through:

• The Board of Governors Curriculum Committee is responsible for monitoring the way the school curriculum is implemented – agenda led and monitored to address each subject area including Computing.

• Named Governors with responsibility for Computing - governors liaise with the subject leaders and monitor closely the way the school teaches Computing.

• The headteacher is responsible for the day-to-day organisation and resourcing of the Computing curriculum.
• Subject leader to monitor the way that their subject is taught throughout the school through: - Learning Walks;
- Pupil Voice;
- Analysis of data;
- Work Scrutinies.

Inclusion

At Leyland St. James' we plan to provide for all pupils to achieve, including boys and girls, higher starting pupils, gifted and talented pupils, those with SEN, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds.

Health and Safety

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 accordingly. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be pat tested before being used in school. This also applies to any equipment brought in to school by, for example, people running workshops, activities, etc. and it is the responsibility of the member of staff organising the workshop, etc. to advise those people. All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the IT technician, bursar or head teacher who will arrange for repair or disposal.
In addition;

- Children should not put plugs into sockets or switch the sockets on.
- 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.
- Online Safety guidelines will be set out in the Online Safety policy & Acceptable Use Policy.

Security

- The IT and 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'.

- All pupils and parents will be aware of the school rules for responsible use of IT, computing and the internet and will understand the consequence of any misuse.

Impact

Our Computing curriculum allows children to become both users of technology and digital creators. Throughout Key Stage 1 and 2, our children understand algorithms and programming and how this all fits into our digital world. They will also be encouraged to show imagination and creativity through their use of ICT.

Children are given the opportunities to build their resilience to the ever-changing digital world we live in, whilst embedding the safe, respectful and responsible use of technology, recognising both acceptable and unacceptable online behaviour and identifying a range of ways to report concerns about content or contact.

Children are responsible, confident and creative users of information and technology.

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