Lowton West Primary School

Computing Policy

Policy reviewed by S. Bailey

Date policy reviewed: September 2019

Ratified by Governing Body:

Mr B. Cunliffe (Chair of Governors)
Mrs J. Westhead (Headteacher)

Review date: October 2020

Lowton West Primary School
Computing Policy

Aiming High Together

School Vision

To inspire, achieve and succeed, we will aim high and build dreams and futures together.

Mission Statement

Providing the highest quality education, care and support for the whole school community.

Our mission statement is based on RESPECT:

R *= Recognising the needs of the individual child*

E *= Ensuring a unique and engaging curriculum*

S *= Supporting each other to learn and achieve*

P *= Passionate about providing the highest quality education*

E *= Encouraging creativity, self – expression and imagination*

C *= Creating confident, resilient, life – long learners*

T *= The voice of everybody is heard*

All the above statements help us to understand how we can all make a positive contribution to the school and the wider community.

We will do this through our core values:
- Respect
- Resilience
- Kindness
- Confidence

We also, at Lowton West Primary School, strive to develop and uphold British Values. The five British values that the Government has identified for schools to focus on are:

- Democracy
- The Rule of Law
- Individual liberty and mutual respect and tolerance of those with different faiths and beliefs
- Developing personal and social responsibility
- Respect for British Institutions

There are more details on how our school demonstrates and develops these British Values in our British Values Policy and on our website.

Computing Curriculum Statement

Aiming High Together

Intent:

We aim to provide a high-quality computing education which equips children to use computational thinking and creativity to understand and change the world. At Lowton West Primary School, we understand that it is essential for pupils to understand modern information and communication technologies, and for them to use these skills to become responsible, competent, confident and creative participants of an increasingly digital world.

Technology is changing the lives of everyone. Through teaching Computing, we aim to equip children to participate in a rapidly-changing world that is controlled and transformed by technology. It is our intention to enable the children to develop the skills necessary to be able to use information in a discriminating and effective way. Our Computing curriculum should be relevant to the pupils' lives and reflect the increase in computing, preparing children for a life where technology surrounds them.

Implementation:

At Lowton West Primary School we ensure our computing scheme of work meets all aspects of the national curriculum. The national curriculum for computing 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 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

At Lowton West, we recognise the fact that the effectiveness of any resource is dependent upon how and why it is being used. We believe that the appropriate use of good quality resources will enhance good teaching. Children have access to a wide range of resources including class sets of iPads and Laptops. School follow the Purple Mash Scheme of Work to ensure there is a clear progression of skills fully embedded across both key stages. Computing is used to enhance other areas of the curriculum through cross-curricular topics. This could be the use of research as Historians in History, Digimaps in Geography lessons, presenting data in Maths and Science or exploring images in Art through digital media.

Impact

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. By the time they leave Lowton West Primary School, children will have gained key knowledge and skills in the three main areas of the computing curriculum: computer science (programming and understanding how digital systems work), information technology (using computer systems to store, retrieve and send information) and digital literacy (evaluating digital content and using technology safely and respectfully). By becoming digitally literate – children become computational thinkers, using computing to express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. The objectives within each strand support the development of learning across the key stages, ensuring a solid grounding for future learning and beyond.

Legal framework
This Policy will have regard to the following statutory and non-statutory guidance:
Computing programmes of study: key stages 1 and 2 – September 2013
DfE (2017) 'Statutory framework for the Early Years Foundation Stage'
'Development Matters in the EYFS'

Roles and responsibilities

The Computing Subject Leader is responsible for:

- Developing, resourcing and reviewing the school's Computing Policy.
- Planning, instigating and monitoring teaching programmes.
- Liaising with colleagues, including the SENCO, to differentiate teaching programmes in accordance with the needs of individual pupils.
- Working with other staff to teach the subject content.
- Keeping staff informed of visits and courses.
- Facilitating the assessment of children's work.
- Keeping up-to-date with current affairs and best practice regarding Computing.
- Providing guidance, including INSET training to staff, as part of their ongoing professional development.
- Celebrating and promoting the Computing curriculum and the work of pupils' throughout the school.

Teaching staff will be responsible for:

- Contributing to the development of the Computing Policy and teaching programmes, with the Computing Subject Leader.
- Following schemes of work and lesson plans in line with the school's Computing Policy and the objectives of the Computing curriculum.
- Facilitating the teaching of their Computing curriculum, including coordinating activities and resources within their specific areas.
- Assessing and recording pupils' progress and keeping the Computing Subject Leader apprised of this.
- Providing feedback to parents and carers on pupils' progress at parents' evenings and other meetings.
- Attending and contributing to any INSET days organised by the Computing Subject Leader.
- Keeping apprised on current affairs and best practice on their Computing curriculum, and applying this to their schemes of work.

Aims of the Purple Mash scheme of work:
Through the teaching of the Purple Mash scheme, we will:

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- Instil critical thinking, reflective learning and a 'can do' attitude for all our pupils, particularly when engaging with technology and its associated resources.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Equip pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- Use technology imaginatively and creatively to inspire and engage all pupils, as well as using it to be more efficient in the tasks associated with running an effective school.

- Provide technology solutions for forging better home and school links.
- Utilise computational thinking beyond the Computing curriculum.
- Exceed the minimum government recommended/statutory guidance for programmes of study for Computing and other related legislative guidance (online safety).

Safeguarding: Online safety

At Lowton West Primary, online safety has a high profile for all stakeholders. We ensure this profile is maintained and that pupil needs are met by the following:

- A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year 6.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements. They know who to contact at school if they have concerns.
- Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
- Our online safety policy clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Filtering and monitoring systems for all our online access.
- Data policies which stipulate how we keep confidential information secure.

Curriculum

As a school, we have chosen the Purple Mash Computing Scheme of Work from Reception to Year 6. The scheme of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides immense flexibility, strong cross-curricular links and integrates perfectly with the 2Simple Computing Assessment Tool. Furthermore, it gives excellent supporting material for less confident teachers.

Early Years

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in role-play.
- Pupils gain confidence, control and language skills through opportunities to ‘paint’ on the interactive board/devices
- or control remotely operated toys.
- Outdoor exploration is an important aspect, supported by ICT toys such as metal detectors, controllable traffic
- lights and walkie-talkie sets.
- Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.

Key Stage 1 outcomes

- 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.
- 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.

Key Stage 2 outcomes

- 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.

Assessment

Pupil attainment is assessed using the 2Simple Computing Assessment Tool for Years 1 to 6. The tool enables staff to accurately identify attainment of pupils through the detailed exemplification it has for each key learning intention. Tracking of attainment by using the 2Simple Computing Assessment Tool is used to inform future planning.

Children are encouraged to self, peer and group assess work in a positive way using online collaborative tools such as 2Blog in Purple Mash. Formative assessment is undertaken during each topic in Computing and pupils are very much encouraged to be involved in that process. Through using the progression of skills documents and displays from 2Simple, both teachers and pupils can evaluate progress. Features such as preview and correct in Purple Mash are used to further support feedback and assessment. Summative assessment is undertaken in line with the assessment cycle (See Assessment Policy). Using electronic work samples from children's portfolios on Purple Mash, teachers enter judgements about the samples into the 2Simple Computing Assessment Tool.

Inclusion

At Lowton West, we aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, children with English as an additional language and children at SEN Support and an EHCP.

We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

Monitoring and evaluation

The subject leader will monitor teaching and learning in Computing at Lowton West ensuring that the content of the National Curriculum is covered. All teachers are expected to keep a portfolio of children's work using Purple Mash. This portfolio must contain work samples from all areas of the curriculum taught for the year group. The subject leader will conduct pupil interviews to ascertain understanding and enjoyment of Computing.

The subject leader will maintain appropriate and current records in the form of subject leader files and reports containing evidence of:

- skills coverage
- work in books
- programmes of study
- data and assessment

This policy will also be reviewed annually to ensure that it complies with the latest legislation, guidance and best practice. Any changes made to this policy will be communicated to all teaching staff by the subject leader.