Longshaw Junior School

Success for all - Nothing Less!

Computing Policy

Longshaw Junior Community School

Science Policy

Rationale

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and 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.

National Curriculum 2014

Aims from National Computing curriculum

Longshaw Junior School aims to ensure that all our 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 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

Overall aims for Longshaw Junior School

- Ensure a broad and balanced computing curriculum is provided for all children regardless of ethnic origin, gender, class, aptitude or disability.
- Meet the national curriculum requirements for Computing.
- Embed computing across a curriculum that acknowledges its contribution to learning in all other subjects.
- Equip pupils with a progression of computing skills that they can apply both in and out of school.
- Support all staff to make effective use of ICT at a professional level.
- For computing to have a positive impact on pupils' creativity, motivation, independence and collaboration, behaviour and attitudes.
- Provide our children with an enjoyable experience of computers so that they will develop a deep and lasting interest and may be motivated to use them further.
- For children to use computers in experimental, imaginative, exploratory ways. This will include regular opportunities to engage with computer programming.

Further to this, we take online safety very seriously and we strive to make it a thread throughout our computing curriculum. We aim to hold online safety in a high profile in our school by ensuring the following:

- A relevant up-to-date online safety curriculum which is progressive from Year 3 to the end of Year 6.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements.
- The pupils know who to contact at school if they have concerns.
- Data policies which stipulate how we keep confidential information secure.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.

- Pupils, staff and parents have Acceptable Use Policies which are signed and copies freely available.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Our online safety policy (part of our safeguarding policy) clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- Filtering and monitoring systems for all our online access.

Planning

We have developed our scheme of work using the National Centre for Computing Education's Teach Computing planning. We set our units/topics using the guidance from Teach Computing, but our staff are not restricted to using only these resources. This is to ensure that coverage of the different strands (Information and Communication Technology, Computer Science and Digital Literacy) is achieved and the pupils can progress their substantive and disciplinary knowledge.

Assessment and record keeping

Throughout each unit, assessment for learning is undertaken. At the end of each half term, teachers complete 'SONAR' objectives which are linked with the substantive and disciplinary knowledge progression document.

Children's work for Computing may be with in their Computing books, within Pupil Shared on located within the different programs that are used (e.g Scratch, TinkerCad, Google Classroom)

Excellence in Science is celebrated through:

- Displaying Computing work
- Certificates in Awards Assemblies.

Responsibilities

The Headteacher, Curriculum Lead & Governors

- Monitor the implementation of the Computing Policy.
- Ensure there is a long term plan that details coverage and progression.
- With the subject co-ordinator, monitor teaching, learning and standards in Computing.
- Oversee Online Safety compliance.

The Computing Co-ordinator

- Take a lead in the policy development and organisation of the Computing curriculum
- Prepare an annual subject action plan
- Moitor the progress of the Computing curriculum and advise curriculum leads and/or headteacher on action needed
- Support teachers with planning and use of resources.
- Undertake appropriate professional development to ensure an up to date knowledge and report to staff.
- Manage the computing resources in the school.
- Keep update to date with Online Safety requirements and ensure the school is meeting these with support of Headteacher and Deputy Headteacher.

Teachers

- Use the school's Computing Scheme of Work to ensure coverage of the Computing Curriculum.
- Plan opportunities for the relevant and creative use of ICT across the curriculum on an on-going basis.
- Plan for differentiation so that all children develop computing skills, taking into account the individual needs of children. This includes SEN, higher ability children and those with less access to computers at home.
- Ensure the appropriate time is allocated to discrete teaching of Computing and Computer Programming.
- Follow health and safety guidelines and the 'Acceptable Use of ICT' policy.

All staff

- Ensure all adults and children handle and use equipment in an appropriate way.
- Follow health and safety guidelines and the 'Acceptable Use of ICT' policy.
- Ensure all adults and children are aware of online safety; what they must do to stay safe.

Health and Safety

Children should not be responsible for moving heavy equipment around the school. They may load software but should not be given the responsibility of plugging in and switching machines on without a member of staff present.

Food and drink should not be consumed near computing equipment.

- It is the responsibility of staff to ensure that classroom computing equipment is stored securely, cleaned regularly and that their class or themselves leave the equipment clean and tidy after use.
- Staff should ensure that the children are seated at the computers comfortably and be aware of the dangers of continuous use (e.g. eye/wrist strain etc).
- An adult should always supervise children when they are accessing information via the Internet. The service provider does filter information but staff are advised to take great care on the content accessed by children and ultimately responsible for information accessed by pupils.
- Technician (Crystal) responsible for the checking and PAC testing (details held by office).

Review and evaluation procedures

The everyday use of communication technology is developing rapidly, with new technology being produced all the time. This policy therefore will be reviewed and revised on a yearly basis. The Computing Co-ordinator will liaise regularly with staff, both at staff meetings and informally, to monitor the effectiveness of the policy and the Computing curriculum. Meetings with subject co-ordinators will also ensure that the use of information technologies across the curriculum is planned for and evaluated.

Links to the school development plan

- The Computing Co-ordinator produces an action plan.
- An audit of resources is undertaken yearly to ensure that hardware and software are kept as up-to-date as possible and that obsolete or broken machines are scrapped or repaired.