Lady Margaret Primary School

Where children come FIRST

Computing Policy

Last reviewed:

May 2022

Respecting Rights

The policy is written with consideration to our school commitment to the Rights of the Child and our achievement of being a Rights Respecting School. It complies with Article 28 of the UNCRC 'Every child has the right to an education' as well as Article 29 'Education must develop every child's personality, talents and abilities to the full.' Although direct reference to this is not continuously made, the policy has been written with full awareness of our responsibility and commitment to children's rights.

Purpose of study

The aim of Computing teaching at Lady Margaret Primary School, is to enable children to develop computational thinking skills and creativity to understand and change their world. Teaching should complement children's learning through its natural links to mathematics, science and design and technology as well as enabling them to better showcase their learning in other subjects. Computing teaching must, at its core, develop the computer science skills of the pupils through learning about principles of information and computation, how digital systems work, and how to put this knowledge to use through programming.

LMPS themes

At Lady Margaret Primary School, each unit of work is linked to the four key themes across the school: **legacy, morality, power and sustainability**. By linking learning to the four key themes, the children are posed questions about how they can make a change individually, as a class or as a school. In effect, children are able to use the themes to reflect back on and recall previously taught units in earlier years. If a theme applies to the lesson, a slide should be dedicated to this in the introduction. Throughout the school, pupils recognise the impact of computing throughout history, and today, in relation to these themes.

Curriculum Aims

Building on computer science skills, our curriculum aims to have children 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.

Planning and Progression

At LMPS, children are taught using the resources provided by Rising Stars: Switched on Computing with the majority of work starting in j2e, our online pupil content management system. It is expected that children are taught explicit computational skills in all year groups and that they are related to the children through real-life examples. Children are taught through six half-term units each year. Computational thinking and programming units are front-loaded so that these fundamental skills are embedded early on in the academic year and can be routinely practised in all other units. The unit progression also ensures children are being exposed to a range of different scenarios and problems that can be solved using a wide range of devices and software; better enabling them to be confident users of technology.

Throughout the entire school, pupils are explicitly taught strategies for being safe and confident users of all digital devices.

EYFS

Computing learning starts in EYFS with pupils being able to access a range of devices through play: both directed and independent. These objects help establish the cause and effect' concept fundamental to computational thinking and problem solving. By the end of Reception, pupils will have experienced software over a range of devices and learnt a number of strategies for how they can manipulate devices to achieve a desired effect. They will also have had exposure to algorithms and used them purposefully for learning.

Key Stage 1

Through Key Stage 1, pupils will build on their EYFS knowledge by establishing a core understanding of what an algorithm is, what you need to build one and how they are implemented on digital devices. They will create simple programs in a range of contexts and utilise problem solving skills to debug and improve their work. This learning will draw connections to real world contexts to help pupils become confident, creative and safe users of technologies.

Key stage 2

Pupils will start to apply their computational thinking to accomplish specific goals, decamping them into smaller parts where needed. They will investigate and write a range of programs to achieve this, using a range of different systems (both physical and digital). Pupils will explore computer networks (including the internet) and understand the purpose and advantages of using these systems.

Access for all

We aim to provide for all children so that they achieve as highly as they can and excel in their learning. Computers provide many functions to support accessibility (such as Text-to-Speech and translation services) helping lower attaining or new to English pupils access their learning. Tasks may be scaffolding or broken into smaller parts as needed to assist pupils in achieving their goals. Many tasks can be thoroughly extended to provide challenge for pupils who need it; exploring the concept of a lesson through a range of new contexts.

Assessment

Assessment takes place during and after every lesson. By means of thorough, on-going assessment, we are able to identify which individuals or groups are under achieving and in which specific areas. Support to target these individual needs is put in place and pupil progress is measured accordingly. Each half-term, the children will complete an end of unit assessment. Key Stage 1 will complete this as a whole class with any misconceptions addressed with the group. Key Stage 2 pupils will complete an individual assessment with their progress tracked.

Marking and Feedback

Pupils' work is recorded on j2e with feedback provided to pupils verbally within the lesson or through the online platform. Time is allocated at the start of every computing lesson to respond to feedback and address any misconceptions.

The Role of the Computing Leader

The Computing leader leads the maintenance and development of the subject. They are responsible for assuring quality and standards in the subject by:

- Taking the lead in the development, evaluation and amendment of schemes of work as and when necessary.
- Prioritise improvements for the teaching and learning of Computing across the school and contributes to the school improvement plan, in consultation with the Headteacher and Governing Body.
- Ensure that the school's senior leaders and governors are kept informed about the quality of teaching and learning in Computing.
- The subject leaders will monitor children's progress and will monitor and evaluate Computing provision in the school by conducting regular work scrutinies, learning walks and deep dives. They will use this data to inform the subject development plan, which will detail how standards in the subject are to be maintained and developed further.
- Leads by example by setting high standards in their own teaching and raises the profile of Computing at Lady Margaret Primary School through best practice.
- Model lessons, as appropriate, to new staff, ECTs and peers to support continued professional development.
- Ensure that all staff have access to year group plans and the relevant resources which accompany them.
- Provide 'expertise' to assist staff in the delivery of the curriculum: ensure teachers understand the requirements of the National Curriculum and support them to plan lessons.
- The subject leaders will ensure that all staff have access to professional development including observations of outstanding practice in the subject.
- Regularly prepare, organise and lead insets and CPD activities to support staff in developing areas of Computing where they feel less confident, facilitates joint professional development and provide coaching and feedback for teachers to improve pupil learning.
- Evaluate, on a regular basis, the policy and scheme of work to ensure they form the basis of practice of Computing within the school.
- The subject leaders will, on a regular basis, organise, audit and purchase whole school and class-based Computing resources.
- Reads widely around pedagogy relating to the learning and teaching of Computing; take responsibility for managing own professional development by participating in external training, independent private study, engaging in educational research and scholarly reading.
- Develop opportunities for parents/carers to become more involved in Computing education; keep parents informed about Computing and Online Safety.
- The subject leader will extend relationships and make contacts beyond the school in order to enhance the teaching of Computing.