

## **LEYS FARM JUNIOR SCHOOL COMPUTING POLICY 2024**

### **Introduction**

The use of information and communication technology (ICT) is an integral part of the National Curriculum and is a key skill for everyday life. Computers, tablets, programmable robots, digital and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate, and present information.

At Leys Farm Junior School (LFJS), we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use it effectively. The purpose of this policy is to state how the school intends to make this provision.

### **Aims and Objectives**

The school's aims are to:

- meet the requirements of the National Curriculum programmes of study for computing;
- provide a relevant, challenging, and enjoyable curriculum for computing for all pupils;
- use ICT and computing as a tool to enhance learning throughout the curriculum;
- respond to new developments in technology;
- equip staff and pupils with the confidence and capability to use ICT and computing throughout their later life;
- develop the understanding of how to use ICT 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 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.

### **Intent**

At LFJS, we believe computing is a vital component of the curriculum—both as a standalone subject and as an integral part of all learning. In today's world, computing plays a significant role in daily life, and children should be empowered to lead the way in embracing modern technologies, driven by

curiosity and a desire to learn. By incorporating computing into schools, we open a wealth of learning opportunities and foster transferable skills that can be applied not only in dedicated computing lessons but also across other areas of the curriculum.

The study of computing equips children with essential skills, knowledge, and understanding that will serve them throughout their lives. In a world where technology is deeply embedded in everyday life, a strong and comprehensive computing curriculum is crucial to ensure our children are not left behind. Teaching the principles of computational thinking is fundamental, providing students with the tools they need to navigate and contribute effectively and safely to the digital world beyond our school.

## **Implementation**

The children will design, write, and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. They will use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs.

Children will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. Children will be taught to select, use, and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals.

They will use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. All our children will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

## **Impact**

With the implementation of this robust computing curriculum, children at LFJS will become digitally literate, ready to engage confidently with the digital world. They will not only gain the skills and knowledge to use technology effectively and to their advantage but, most importantly, will understand how to do so safely. A key focus is ensuring that children comprehend the consequences of internet use and are well-informed about staying safe online.

As their confidence in computing grows, children will develop greater independence, with key life skills such as problem-solving, logical thinking, and self-evaluation becoming second nature.

## **Monitoring and Reviewing**

The monitoring of the standards of the children's work and of the quality of teaching in computing is the responsibility of the computing subject leader. The computing subject leader is also responsible for supporting colleagues in the teaching of computing, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The computing subject leader gives the Headteacher an annual summary report evaluating the strengths and weaknesses in the subject and indicating areas for further improvement. The computing subject leader has specially allocated time for carrying out the vital task of reviewing samples of the

children's work and for visiting classes to observe the teaching of computing. The subject leader has ongoing informal conversations with staff delivering the curriculum, to monitor and assess impact.

### **Curriculum Planning**

- modules are planned in line with the National Curriculum;
- the scheme of work used to inform planning, is a highly detailed document using a wide range of high-quality sources that have been created by educators with vast experience in computing and which use research driven pedagogy. The scheme is divided into 3 sections; e-safety, which is taught continuously throughout the year (each half term), digital literacy, and coding;
- medium term plans are designed to enable pupils to achieve stated objectives, allowing for clear progression as they move up the school;
- where possible and appropriate, children are encouraged to use computing in a cross curricular manner to support the learning of other curriculum areas;
- each class has timetabled access to resources, but this does not limit when computing is taught.

### **Assessment**

- teachers assess children's work in Computing by making informal judgements as they observe them during lessons as well as outcome led judgements linked to pieces of work. Pupils' progress is monitored by the class teacher and all samples of work are stored on the Purple Mash network,

### **British Values**

Children at LFJS demonstrate the following values whilst learning about Computing by:

#### **Democracy**

- listening to everyone's ideas to form a majority;
- working as part of a team and collaborating to use computing devices effectively.

#### **Rule of Law**

- developing knowledge of lawful computing behaviours;
- demonstrating respect for computing laws.

#### **Individual Liberty**

- taking responsibility for our own computing behaviours;
- challenging stereotypes and bias;
- exercising rights and personal freedoms safely through knowledge of E-safety.

## Respect and Tolerance

- showing respect for other cultures when undertaking research using computing devices;
- providing opportunities for pupils of all backgrounds to achieve in computing.

## Cultural Capital

At LFJS, our goal is to enrich every child's school experience by fostering an environment where they are inspired to succeed and reach their potential.

Cultural capital is about equipping children with the knowledge and skills they need to navigate what lies ahead. We understand that exploring new skills and experiences nurtures resilience, curiosity, and creativity, leading to the development of cultural capital that transforms mind-sets and shapes futures.

The intent of our computing curriculum, with its strong cross-curricular links, is to broaden children's horizons and spark a sense of awe and wonder about the world. By leveraging technology, we enable children to virtually explore places they may not otherwise experience due to socioeconomic barriers.

Across all year groups, we provide children with the knowledge and skills to enrich their experiences, ensuring they are well-prepared for the next stages of learning, life, adulthood, and the world of work.

## Resources

- to enable regular and whole class teaching of Computing and ICT, each teacher has access to iPads which are based in the classroom at a ratio of at least 1 iPad:2 children. This is to ensure that computing skills are used across the curriculum, throughout the day. Children in Year 6, have access to iPads on a 1:1 basis to allow cross-curricular access to LbQ (Learning by Questions) Maths and Reading Plus;
- teachers also have access to a bank of 32 laptops, stored in two charging trolleys outside of the classrooms;
- each member of teaching staff has a laptop computer and iPad, which they can use at home;
- All support staff also have a laptop for class delivery of lessons, CPOMs and training;
- every class has an interactive touch-screen Smartboard linked to a laptop on the school network;
- as well as computing provision in school, we have a range of online resources for home use including but not limited to; Spelling Shed, TT Rockstars, Reading Plus, Dyslexia Gold, Language Angels, Class Dojo, Microsoft 365 and Purple Mash. Pupils have individual passwords to access these sites and have been shown how to use them and keep their passwords safe from others.

Reviewed: December 2024

Next Review: December 2026