LEYS FARM JUNIOR SCHOOL
COMPUTING POLICY 2021

Introduction

The use of information and communication technology 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 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.

Intent

When planning and teaching computing at LFJS, we believe that it is an essential part of the curriculum; a subject that not only stands alone but is woven and should be an integral part of all learning. Computing, in general, is a significant part of everyone's daily life and children should be at the forefront of new technology, with a thirst for learning what is out there. Computing within schools can therefore provide a wealth of learning opportunities and transferrable skills explicitly within the Computing lesson and across other curriculum subjects.

Through the study of Computing, children will be able to develop a wide range of fundamental skills, knowledge and understanding that will actually equip them for the rest of their lives. Computers and technology are such a part of everyday life that our children would be at a disadvantage would they not be exposed to a thorough and robust Computing curriculum. Children must be taught in the art

form of 'Computational Thinking' in order to provide them essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

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 of our children will be exposed to the understanding of internet safety as they explore the world around them and how technology id an everyday part of their learning and understanding of the world

Impact

After the implementation of this robust computing curriculum, children at LFJS will be digitally literate and able to join the rest of the world on its digital platform. They will be equipped, not only with the skills and knowledge to use technology effectively and for their own benefit, but more importantly – safely. The biggest impact we want on our children is that they understand the consequences of using the internet and that they are also aware of how to keep themselves safe online.

As children become more confident in their abilities in Computing, they will become more independent and key life skills such as problem-solving, logical thinking and self-evaluation become 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 head teacher an annual summary report in which s/he evaluates the strengths and weaknesses in the subject and indicates 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, 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. Pupils' progress is monitored by the class teacher and all samples of work are stored on the staffshared network.

British Values

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

Democracy

- listening to everyone's ideas in order 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

Our aim at LFJS is to enrich every child's school experience and create an environment where they are encouraged to succeed and be the best they can be.

Cultural capital is about preparing children with the knowledge and skills for what comes next. We realise the exploration of new skills and experiences helps to nurture resilience, curiosity and creativity. Ultimately, this leads to the growth of new forms of cultural capital that makes a difference in individual mindsets and shapes the future.

The Intent of our Computing curriculum and its cross curricular aspect is to widen children's experiences and help our children experience the awe and wonder of our world, visiting places virtually that socioeconomic barriers may prevent them from visiting physically.

In every year group, knowledge and skills are given to children to extend their experiences to enable all children to be better prepared for the next steps in learning, as well as life, adulthood and the world of employment.

Resources

- to enable regular and whole class teaching of Computing and ICT, each teacher has access to a bank of laptops, as well as a shared bank of iPads, which are timetabled for use by all children;
- each member of teaching staff has a laptop computer and iPad, which they are able to use at home;
- every class has an interactive touch-screen board linked to a laptop on the school network, as well as a minimum of 5 desktop computers and 12 iPads that the children can access when necessary and appropriate;
- 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, SPAG.com, Read Theory, Language Angels, ClassDojo, Microsoft 365 and PurpleMash (from September 2021). Pupils have individual passwords to access these sites and have been shown how to use them and keep their passwords safe from others.

Reviewed: January 2021