St Leonard's Computing Statement

Article 13

Every child must be free to say what they think and to seek and receive information of any kind as long as it is within the law.

Article 16

Every child has the right to privacy. The law should protect the child's private, family and home life.

Article 17

Every child has he right to reliable information from the mass media, television, radio, newspaper and other media should provide information that children can understand. Governments must help protect children from materials that could harm them.

Article 28

Every child has the right to an education. Primary education must be free. Discipline in schools must respect children's human dignity.

At St Leonard's Primary School we believe that computing is an essential part of the national curriculum. Computing is an integral part of modern day life and therefore provides a wealth of learning opportunities, explicitly within computing and also across other curriculum subjects.

Through the study of computing, children are able to develop a wide range of fundamental skills, knowledge and understanding that they will need for the rest of their lives.

Computers have become a part of everyday life. For most of us, technology is essential to our daily lives, at home and at work. 'Computational Thinking' is a skill children must be taught in order to provide them with essential knowledge and skills that will enable them to participate effectively in the digital world.

The new national curriculum defines three clear aspects of computing curriculum: Computer Science (CS), Information Technology (IT) and Digital Literacy (DL).
Children will be given the opportunity to develop their knowledge and understanding in each area from the Foundation Stage to Year 6.

The aims of teaching Computing, as outlined in the national curriculum are 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

With the introduction of our new St Leonard's IT suite and our existing computer facilities, we are planning to introduce Purple Mash and its accompanying scheme of work. Purple mash will offer the age appropriate scheme, resources and computer programs in order to deliver a worthwhile, enjoyable and knowledgeable lessons in order to achieve the aims of the national curriculum.

Key Stage 1
In **Key Stage 1** the children will learn to understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. (1.1)

They will be taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. (1.2 / 1.3)

They will be shown how to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school. (1.4 / 1.5)

They will be taught to use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. (1.6)

Each of these skills will be taught through exciting half termly units.

Key Stage 2
In **Key Stage 2** 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. (1.1)

They will use sequence, selection, and repetition in programs; work with variable and various forms of input and output. (1.2)

They will use logical reasoning to explain how some simple algorithms work, and be able to detect and correct errors in algorithms and programs. (1.3)

They will be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. (1.4)

They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content. (1.5)

They 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. This will include collecting, analysing, evaluating and presenting data and information. (1.6)

They will use technology safely, respectfully and responsibly; recognise acceptable /unacceptable behaviour; identify a range of ways to report concerns about content and contact. (1.7)

Assessment and Progression

Progression in computing will be assessed throughout each key stage through the children's ability to know, apply and understand the matters, skills and processes specified in the relevant programme of study. We assess the children through:

- Observing children at work during weekly computing sessions.
- Questioning the children in relation to their programme of study in order to assess their understanding and comprehension.
- Assessment/marking the work produced by the children and discussion of their next steps.

An age-related assessment will be given to parents/carers through annual reports.