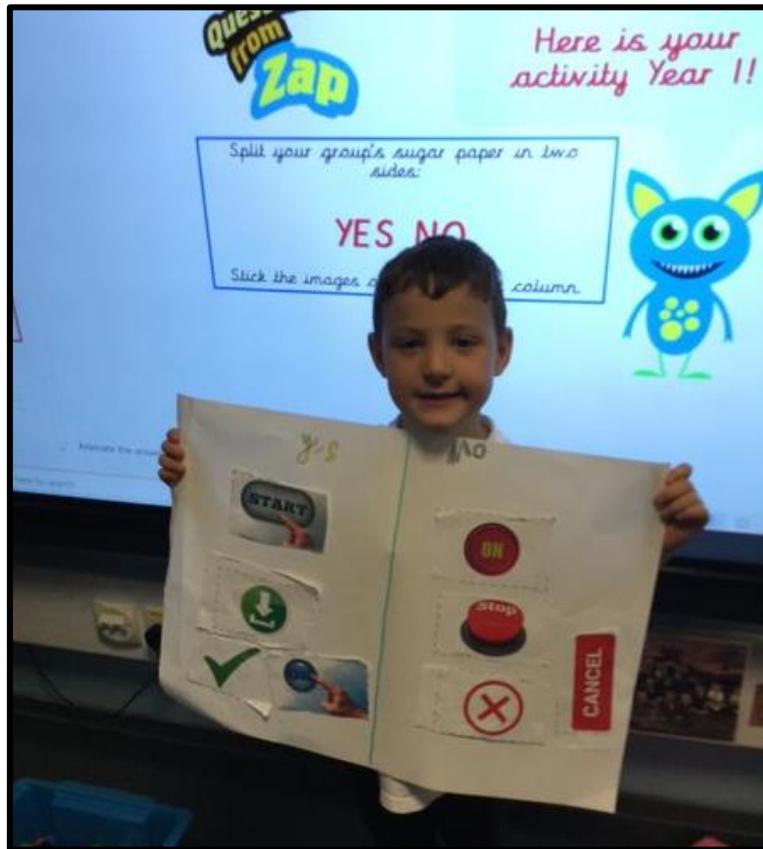# Computing Curriculum Statement

Intent

Through the teaching of Computing we aim to develop the processes of computer systems, technologies, hardware and variety of software. We also aim to provide the children with opportunities to work through the essential elements and concepts of computer science, programming and data handling as well as building on the children's research, communication and presentation skills. Computing will encourage creativity, logical thinking and problem solving and will have strong links with Literacy, Maths, Science and Design Technology.

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 life. 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.

National curriculum for computing and our progress of skills within each milestone aims to ensure that all pupils:

o Are confident in using code and can understand and apply the fundamental principles and concepts of computer science, including logic, algorithms and data representation
o When coding, pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
o Effectively communicate and can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
o Able to connect with others responsibly and are competent, confident and creative users of information and communication technology.

Ernesettle Community School takes internet safety extremely seriously. We have an E- Safety Policy that provides guidance for teachers and children about how to use the internet safely. Every year group participates in lessons on e-safety and children understand how to stay safe when using technology.

Implementation

At our school we believe that a clear and effective scheme of work that provides coverage in line with the National Curriculum is essential to meet the requirements of our children in order for them to thrive. Teaching and learning facilitates progression across all key stages within the strands of digital literacy, information technology and computer science. In KS1, one of the ways we are teaching the pupils about the language and concepts associated with computer programming is by using Bee Bots and Pro-bots, which are simple programmable robots. Children in KS2 have access to the hardware (computers, tablets, and programmable equipment) and software that they need to develop knowledge and skills of digital systems and their applications. Computing is implemented across all aspects of our school curriculum, with one example being the use of Times Tables Rockstars during Maths lessons.

Wider curriculum:

Opportunities for the safe use of digital systems through extra-curricular provision are offered with the school's lunchtime online Maths clubs. A Digital Leaders club has proven to be an extremely popular lunchtime club, where children are able to extend their knowledge of the computing world around them. Members of the group have taken part in fundraising and teaching their peers new skills needed during computing lessons.

Displays:

The importance of online safety and celebrations of the computing curriculum are shown through displays within the learning environment.

Parental Communication:

Parents are informed when issues relating to online safety arise and further information/support is provided if required.

Safer Internet Day:
As well as opportunities within the scheme of work, children will also spend time further exploring the key issues associated with online safety. Every child actively participates in a range of activities linked to being safe with technology during our 'Ernesettle E-Safety Day'.

Trips and visitors:
The school has a strong partnership with the city's Apple store, with staff and children in regular contact with the Training and Education specialist of the branch. Six children last year excelled in a regional computing design competition, winning the first place prize of an iPad for each pupil.

Impact
Ernesettle Community School takes immense pride in the teaching and learning of computing and strive to ensure that every child can become a confident user of technology, while being able to use it to accomplish a wide variety of goals, both at home and in school. Children will have a secure and comprehensive knowledge of the implications of technology and digital systems by the time they leave our school. This is important in a society where technologies and trends are rapidly evolving. They will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems, which will hold them in great stead in their future endeavours.

Computing in the Early Years:
It is important in the Early Years stage of schooling to give children a broad, play-based experience of computing in a range of contexts, including outdoor play. Children in Early Years settings, experience a wide range of technologies throughout their play including; Ipads, computers, cameras, beebots and interactive whiteboards. They use these forms of technologies to access age appropriate software, to provide opportunities for mark making as well as supporting their imaginative play, often re-enacting real life experiences both inside and outside of the classroom. Children thrive on the ability to incorporate technology into their learning and through careful planning of their continuous provision, Early Years practitioners are able to provide a number of devices for children to use competently and independently, to support child led learning. In addition to this, technology is a fantastic tool to enable children to build confidence, control and improve language development through specific online programs. Recording devices can support children to develop their communication and language skills further as well as building simple IT skills. This is particularly useful with children who have English as an additional language or children who struggle to communicate effectively.

The Curriculum Leader for Computing is:

Mr Paddy Kumar