**Otterbourne Church of England Primary School**

**Subject: Computing**

**Statement of Intention, Implementation and Impact**

**Intent:**
Within an ever changing and technological world, Otterbourne CE Primary School understands and values the importance of teaching a Computing curriculum which is accessible for all from a young age. We acknowledge that future generations will rely heavily on their computational confidence and digital skills in order to support their progress within their chosen career paths.

Therefore, it is our school's aim to equip all children with the relevant skills and knowledge that is required to understand the three core golden threads Computing (Computer Science, Information Technology and Digital Literacy) and to offer a broad and balanced approach to providing quality first teaching of this subject.

Computing is an integral part to a child's education and everyday life. Therefore, we intend to support our pupils to access and understand the core principles of this subject through engaging and cross-curricular opportunities.

The intent for Computing at Otterbourne CE Primary are:

- To instil an enthusiasm and appreciation of Computing via engaging and well-planned lessons, allowing children to use their skills to create and develop new ideas.
- To deliver a progressive curriculum, which provides a breadth of knowledge across all year groups, making meaningful links to other curriculum subjects.
- To identify real world examples and creative challenges in which pupils can explore and extend their understanding of the fundamental principles and concepts of Computing.
- To ensure that pupils develop a respectful and responsible attitude towards using information and communication technology, especially with regards to their own and other's safety building on our Aspiration and Wellbeing Pillar.
- To provide a safe space in which pupils can navigate and interact with the digital world, whilst exploring their own personal expression and identity.
- To promote the school value of determination by promoting resilience through actively learning from setbacks, which is a very real part of programming and debugging.

**Implementation:**
In order to achieve the outlined intentions, the Computing curriculum is continuously reviewed through monitoring and evaluation by the Subject Leader and Senior Leadership Team. Teachers demonstrate a high level of enthusiasm for the subject content and their expectations of the pupils are driven by the subject progression grid. This has been written with the three Golden Threads of Computing in mind:

**Computer Science** – the understanding of coding and programming across a range of physical devices and digital resources.
**Information Technology** – the range of skills required to operate and manipulate specific programs, systems, and content.
**Digital Literacy** – the knowledge required to use technology safely and to evaluate and react to any potential risks of the online/digital world.

The National Curriculum provides the basis for the progression grids and this content is then supplemented by additional resource banks, such as; CODE-IT (learning primary programming with Scratch), Project Evolve (to support KS2 online safety), Common Sense Media (to support KS1 online safety). Cross-curricular opportunities are identified in order to ascertain links between termly topics and to ensure that Computing is not just seen as

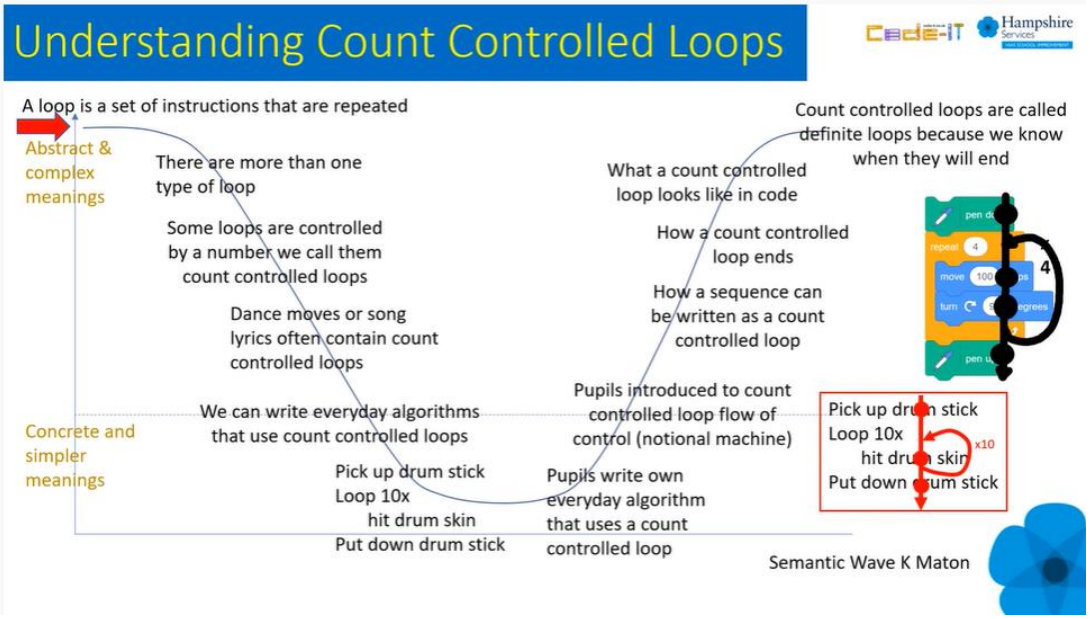
a standalone area. Staff are encouraged to share any gaps in their knowledge and skill sets to inform appropriate and individualised training/CPD.

In our teaching of Computing, we endeavour to expose students to a variety of software, programs, and equipment in order to offer a range of appropriate challenges and experiences. Specific vocabulary for each year group is outlined in the progression grid and this is regularly modelled by teachers within their lessons. Spaced repetition and chunking within the curriculum allows pupils to develop their recall of embedded knowledge and ensures that each year group works on core aspects of the three Computing golden threads. Sessions are adapted to meet the requirements of a specific cohort and lesson content is frequently reviewed by class teachers and the subject lead.

The problem solving rubric is actively taught in all computing sessions.


KS1 computing uses a mixture of instruction and discovery learning. Year 3 pupils follow a more instructional curriculum designed to familiarise them with the programming environment and introduce basic sequence. Year 4, 5, and 6 follow a PRIMM (Predict, Run, Investigate, Modify, and Make) Methodology.

Teachers make sure that ideas are unpacked carefully first in simple and concrete ways before we repack complexity to enable the full breadth of an idea to become apparent.




**Impact**

Within Computing, we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. The success of the curriculum itself will be assessed via the analysis of yearly progress data, conducting regular pupil voice sessions, lesson observations and skills audits. This will then inform future adaptions of the schemes of work and help to ensure that progression is evident throughout school.

In KS1, teachers observe pupils closely and ask questions. In KS2 in computer science, we collect pupils (PRIMM) prediction, investigation, and modifying marks, and combined with teachers assessments of pupils independent programming midway through the project as well as at the end of the module, these enable us to ensure pupils are making progress early enough to intervene correctively if needed. In digital literacy, we rely on the weekly retrieval practise and teachers assessments of pupils' cross-curricular projects to determine progress.

In order to demonstrate that we have accomplished our aims, pupils at Otterbourne CE Primary School should:

- Be enthusiastic and confident in their approach towards Computing.
- Present as competent and adaptable 'Computational Thinkers' who are able to use identified concepts and approaches in all areas of their learning.
- Be able to identify the source of problems and work with perseverance to 'debug' them.
- Create and evaluate their own project work.
- Have a secure understanding of the positive applications and specific risks associated with a broad range of digital technology.
- Ready to transition to secondary school with the skills and knowledge needed to tackle the KS3 curriculum and with a keen interest in the continued learning of this subject.