Computing at Holy Family RC Primary School

"This only have I found: God made mankind upright, but men have gone in search of many schemes."
Ecclesiastes 7:29

Aim	**A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. (DfE, 2013)** Through liaising with KS3 specialists' subject leaders are aware of pupils' next stages. In every subject we aim to develop knowledge of cultural diversity and raise aspirations. Pupils will be prepared for the key stage 3 computing curriculum and for next stages in their journey. The demand for computing skills and knowledge is growing – the nation's economy depends on it, and young people must be equipped with the necessary skills for the future. **(Royal Society)**
Overview	• At the core of everything we teach, the three predominant areas of computing are a prime focus and the scheme we use is carefully designed to ensure this coverage. These areas are: **information technology, digital literacy and computer science.** • It is vital that children develop the skills and knowledge related to these strands, becoming successful learners, confident individuals and responsible citizens.
Implementation	It is encouraged that learning is linked where appropriate to other units studied in computing, previous learning in other year groups and to other curriculum areas. For example, spreadsheets and databases are easily embedded into maths and science units and writing for different audiences, blogging and text adventures can link with literacy. Children should have a clear understanding of the purpose of this connection in order for it be an effective link
EYFS	ICT and computing is used throughout the Early Years. Pupils will use ipads and desktop computers to develop hand to eye coordination and complete simple programmes. Robots including Code-a-Pillars are used to develop problem solving, programming and understanding of direction and numbers. iPads are available for the children to take photographs of their activities and work and recording buttons allow children to record their thoughts and ideas and replay them back.
KS1	Key Stage 1 introduces children to a wide range of different technological experiences using a variety of tools. Knowledge and skills progression documents give a clear overview of how skills will be built up through each key stage and a clear 'end goal' for teachers by the end of each year group. Learning objectives have also been clearly set out for every lesson within each half term. The overlaps between units serve to deepen understanding of computational concepts and provide opportunities for pupils to apply and extend understanding and make links in their knowledge and capabilities.
KS2	KS2 further builds upon initial skills learnt across KS1 such as presenting ideas, pictograms and questioning. Concepts such as animation, graphing, databases and simulations are introduced to further develop this knowledge and apply it to real life scenarios. This enables children to understand the purpose, impact and applications of technology. Online safety, spreadsheets and coding are taught in every KS2 class as these are such broad areas relying on experience, past knowledge and maturity around certain discussion topics.
Impact	By the end of year 6 pupils at Holy Family can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation **(Computer science)**; can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems **(Computer science);** can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems **(Information technology);** and develop into responsible, competent, confident and creative users of information and communication technology. **(Digital literacy).**