



Ss Peter and Paul Catholic Primary School

Computing Curriculum

When planning and teaching computing at Ss Peter and Paul Catholic Primary, 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 transferable skills explicitly within the computing lesson and across other curriculum subjects.

Intent

To enable our pupils to have a thirst for knowledge, a toolkit of skills which links all of the curriculum and an aspirational approach to the future, all of which are underpinned by Gospel Values.

We intend for our children to learn together to be safe digital citizens of the future. We want children to use technology as an integral part of the curriculum that will allow them to develop into creative, collaborative, critical thinkers and lifelong learners.



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 if they were not exposed to a thorough and robust computing curriculum. Our children will be taught the art form of 'Computational Thinking' in order to provide them with the essential knowledge that will enable them to participate effectively and safely in the digital world beyond our gates.

Implementation

Our children in Early Years will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

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. They will be taught to create and debug simple programs and use logical reasoning to predict the behaviour of simple programs. 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. 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. Each of these skills will be taught through half termly units.



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. 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.



Impact

After the implementation of this robust computing curriculum, children at Ss Peter and Paul Catholic Primary 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.



Ss Peter & Paul Computing Long Term Plan (based on the NCCE Teach Computing Curriculum)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
A1	Computing systems and networks – Technology around us	Computing systems and networks – Technology around us	Computing systems and networks – Connecting computers	Computing systems and networks – The Internet	Computing systems and networks – Sharing information	Computing systems and networks – Communication
A2	Creating media – Digital painting	Creating media – Digital photography	Creating media – Animation	Creating media – Audio editing	Creating media – Video editing	Creating media – Web page creation
SP1	Programming A – Moving a robot	Programming A – Robot algorithms	Programming A – Sequence in music	Programming A – Repetition in shapes	Programming A – Selection in physical computing	Programming A – Variables in games
SP2	Data and information – Grouping data	Data and information – Pictograms	Data and information – Branching databases	Data and information – Data logging	Data and information – Flat-file databases	Data and information – Spreadsheets
SU1	Creating media – Digital writing	Creating media – Making music	Creating media – Desktop publishing	Creating media – Photo editing	Creating media – Vector drawing	Creating media – 3D Modelling
SU2	Programming B – Introduction to animation	Programming B – An introduction to quizzes	Programming B – Events and actions	Programming B – Repetition in games	Programming B – Selection in quizzes	Programming B – Sensing

