St Joseph's Catholic Primary School, Jarrow

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Computing

At St Joseph's Catholic Primary School, we support all children in using a range of technology with purpose and enjoyment. Technology is continuously and rapidly evolving and therefore, we believe, computing is an integral part of preparing children for the wider world. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Our principle aims for computing are for children to:

- develop their understanding of technology and how it is constantly evolving.
- develop their skills and capability which is essential to developing computer capability.
- evaluate the benefits and risks of technology and how to manage their use of it safely and respectfully.
- be responsible, competent, confident and creative users of information and communication technology
- celebrate success in the use of technology.

The use of technology is an integral part of our curriculum and provides pupils with the technological and communication skills they will need to live in our modern world.

Our computing curriculum is designed around the three key areas, as outlined in the National Curriculum. These are **computer science**, **information technology**, **digital literacy**.

	KS1	KS2
CS	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web Appreciate how [search] results are selected and ranked
IT	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use search technologies effectively Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
DL	Recognise common uses of information technology beyond school 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	Understand the opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

The combination of these areas equips our children with the ability to safely and confidently use a computer. Online safety is taught across the curriculum, at every opportunity, be it in computing, English, PSHE, foundation subjects when conducting research or any time that it is deemed necessary.

Through exploratory play, children use technological toys and learn that they can make them work by pressing buttons and clicking on icons. They are taught how to complete simple programs which they use to support their phonics and mathematical skills using online interactive tasks.

Through role-play, discussion and stories children learn that technology can be used for a range of purposes across home and school. Technology is used in the Foundation Stage, by adults and pupils to capture ideas, thoughts and experiences through images and text. This is a fundamental part of the evidencing process which tracks the learning journey.

At Key Stages 1 and 2, the planning, organisation and delivery of the Computing Curriculum is supported using a variety of ideas from different schemes, including NCCE, Barefoot Computing, iCompute and Rising Stars. Through the use of 2Simple and iPad apps, children will learn about different programmes, coding, online safety, games and creative tools. All the activities that children will be given will be open-ended to allow children's creativity to flourish and allow the children to understand how different children and people express themselves. Where appropriate, meaningful links are made between the computing curriculum and the wider curriculum. Employing cross-curricular links motivates pupils and supports them to make connections and remember the skills they have been taught.

The implementation of this curriculum ensures that, when children leave St Joseph's Catholic Primary School, they are competent and safe users of IT with an

understanding of how technology works. They will have developed skills to express themselves and be equipped to apply their skills in computing to different challenges going forward.

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