Computing at St. Joseph's

At St. Joseph's we place a strong emphasis on providing a primary curriculum that is driven by faith, enrichment, equality, diversity, learning for life, and oracy. Our curriculum aims to enhance the educational experience of all pupils by providing opportunities for intellectual, social, and personal growth.

Intent

At St Joseph's Catholic Primary School, we will provide children with stimulating, challenging and engaging lessons that ignite passion for computing, delivered through a robust curriculum, high quality teaching and relevant resources. Unlocking limitless potential so all children become digitally literate – developing a wide range of skills, knowledge and understanding that will empower our children in preparation for challenges both known and unknown within the future digital world.

Ultimately, computing is a curriculum area that not only stands alone but is woven throughout other areas of the curriculum and will be an integral part of all learning. In particular, computing has cross curricular links with literacy, mathematics, science, music art and DT.

We aim to embrace difference though delivering a curriculum that is inclusive/challenging and rigorous. This is for all our children despite their needs to ensure they have abundant opportunities.

E-Safety is at the forefront of computing and is taken extremely seriously at St. Joseph's. Every year group participates in discrete e-safety lessons every year, as well as during national recognition days. However, e-safety remains an ongoing topic of conversation within our classrooms and opportunities are taken to dive deeper into emergent social media trends to ensure continuous safety and unplanned coverage.

Implementation

We follow a curriculum which ensures wide coverage of key stage objectives that are progressive and develop computational thinking, digital literacy and creativity. The curriculum overview illustrates half termly focuses and learning objectives per year group. These are interchangeable and can be done during any half term throughout year as long as full coverage is achieved by end of year.

All classes except Reception Class, have a scheduled Computing lesson each week. Outside of discrete computing lessons, children will use technology across other areas of the curriculum, applying their ever-growing range of skills with growing independence. Teachers and children will have access to hardware and software needed to develop knowledge and skills of digital systems and their applications.

Children's work will be stored on the network server for reference and assessment.

E-safety is at the heart of computing and necessitates its own curriculum overview which was formulated to ensure coverage of key themes and topics. Children will explore real world problems drawing on own experiences and challenges.
Strong links between school and home exist, to ensure teachers, parents and carers are consistent and up to date with e-safety information. We track the both children's and staff use of the computers.

Teachers will engage in regular coaching and professional discussions as well as attend relevant CPD, to ensure they are delivering the highest quality computing curriculum possible.

Impact

Computing has a high profile at our school. Our children enjoy and value Computing and know why they are doing things, not just how. Children understand and appreciate the value of Computing in the context of their personal wellbeing and the technological, creative and cultural industries and their many career opportunities.

Progress in Computing is demonstrated through regularly reviewing and scrutinising children's work, in accordance with our computing assessment policy to ensure that progression of skills is taking place. The majority of children's work is evident on the school server where children can evaluate their work.

Our children are confident users of a range of hardware and software and are able to use these technologies to accomplish a wide variety of goals. Our curriculum overview for computing results in fun, engaging and high-quality lessons. Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. Our children are diligent learners who value online safety and respect when using their devices and understand its importance in a wider context.

Development Priorities:

- Update equipment and improve the opportunities to use different technologies
- Develop further opportunities to link computing with other subjects.

Strengths:

- Lesson continuity across school
- EYFS develops firm foundations which support the KS1 and KS2 curriculum.
- Weekly computing lesson delivered by a specialist.
- Clear progression of skills taught.
- Opportunities to 'Dive Deeper' and demonstrate secure skills and knowledge.

Computing—Curriculum Coverage

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	Autumn		Spring		Summer	
Reception	My First Technology Children will learn to switch on and use IPads, identifying Apps and choosing apps to use.	Junior Explorers Children will learn to give sequences of instructions to control Bee-Bots	Using Technology Use the YoTo player to listen to stories and choose desired story. Use a small laptop in the home corner in role play.	Art Children will explore and experiment with a range of drawing and art apps across a range of devices creating images of animals from the farm	Taking Photographs Children use IPads to take photographs of their work, activities they do and taking selfies. Learning to delete photographs.	Watching Videos and Listening to Music Children learn to use a variety of devices to access different media.
Year 1	Technology Around Us Recognising technology in school and using it responsibly.	Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Moving a Robot Writing short algorithms and programs for floor robots, and predicting program outcomes.	Grouping Data Exploring object labels, then using them to sort and group objects by properties.	Digital Writing Using a computer to create and format text, before comparing to writing non-digitally.	Programming Animations Designing and programming the movement of a character on screen to tell stories.
Year 2	Information Technology Around Us Identifying IT and how its responsible use improves our world in school and beyond.	Digital Photography Capturing and changing digital photographs for different purposes.	Robot Algorithms Creating and debugging programs, and using logical reasoning to make predictions.	Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer	Making Music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Programming Quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3	Connecting Computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	Stop-Frame Animation Capturing and editing digital still images to produce a stop-frame animation that tells a story.	Sequencing Sounds Creating sequences in a block-based programming language to make music.	Branching Databases Building and using branching databases to group objects using yes/no questions.	Desktop Publishing Creating documents by modifying text, images, and page layouts for a specified purpose.	Events and Actions in Programs Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	The Internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Audio Editing Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Repetition in Shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.	Data Logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Photo Editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	Repetition in Games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	Sharing Information Identifying and exploring how information is shared between digital systems.	Video Editing Planning, capturing, and editing video to produce a short film.	Selection in Physical Computing Exploring conditions and selection using a programmable microcontroller.	Flat-File Databases Using a database to order data and create charts to answer questions.	Vector Drawing Creating images in a drawing program by using layers and groups of objects.	Selection in Quizzes Exploring selection in programming to design and code an interactive quiz.
Year 6	*I*nternet Communication	Webpage Creation	Variables in Games Exploring variables when design-	Introduction to Spreadsheets Answering questions by using	3D Modelling Planning, developing, and evalu-	Sensing Designing and coding a project

What drives our Computing Curriculum?

At St. Joseph's we place a strong emphasis on providing a primary curriculum that is driven by faith, enrichment, equality, diversity, learning for life, and oracy. Our curriculum aims to enhance the educational experience of all pupils by providing opportunities for intellectual, social, and personal growth.

Faith in Computing

Our curriculum helps pupils to develop a deep understanding of their faith and how it informs their lives and interactions with others.

Throughout our Computing curriculum, we promote spirituality by encouraging children to ask Big Questions. In lessons, we promote core values such as teamwork, cooperation and supportive partnerships.

The topic of faith is threaded through the reading diet we offer our children and the opportunities offered to appreciate all faiths. Children are supported to grow in confidence in English, viewing themselves as God's creations and fulfilling their potential.

Children are nurtured to understand that they are made in the image and likeness of God.

Equality and Diversity

Our curriculum ensures that every student has access to a high-quality education regardless of their background or abilities. We reflect the diverse needs and interests of our pupils, providing a level playing field for all to succeed.

Our Computing curriculum is ambitious for all of our children. We aim for them to access a challenging, inspiring, quality curriculum. All children access this regardless of additional need, disadvantage or social circumstance. Where needed, children receive carefully planned intervention or scaffold so that they access the curriculum fully. In designing our Computing curriculum, we have carefully considered the topics and themes we use so that every child sees themselves as represented. The support computing gives to a range of subjects encourages our work represents cultural, ethnic and social diversity.

Enrichment in Computing

We believe that pupils should be challenged and inspired in their learning. Our curriculum offers a range of extracurricular activities and opportunities for pupils to explore their passions and interests, fostering creativity and critical thinking.

Enrichment in Computing is centred around the topics and themes that we carefully choose and hook children into. Every topic in Computing lessons is carefully and deliberately chosen because of what it offers beyond the aspects of the computing curriculum.

Activities are carefully planned to ensure that children become passionate about Computing. We provide opportunities for the enrichment of Computing through our Homework Club and with carefully selected visits and visitors.

Learning for Life

We aim to prepare pupils for the challenges and opportunities of the future. Our curriculum provides pupils with the skills, knowledge, and attitudes needed to succeed in a rapidly changing world, fostering independence, creativity, and critical thinking.

The knowledge and skills children develop through our ambitious Computing curriculum ensure that they are fully equipped for the next stage of their education. We want every one of our children to develop a love of technology that is lifelong and ensures that they continue to learn throughout their lives.

At St. Joseph's we value Computing as an important life skill as it equips future generations with the necessary skills for adult life within the ever-changing technological environment we live in. We try to equip children to participate in a world where work and leisure activities can be increasingly transformed by technology.

Oracy in Computing

Our curriculum provides pupils with opportunities to develop their speaking, listening and eloquence to raise aspirations and prepare them for a lifetime of confident and effective communication.

Our Computing curriculum aims for children to learn to articulate ideas, develop understanding and engage with others through the use of technology. In school, oracy is a powerful tool for learning; by teaching students to become more effective speakers and listeners we empower them to better understand themselves, each other and the world around them. Teachers skilfully plan opportunities to model oracy in Computing lessons and empower children to confidently take part in discussions. We plan opportunities for children to speak publicly about technology and build their confidence so that they can articulately express opinions about it.