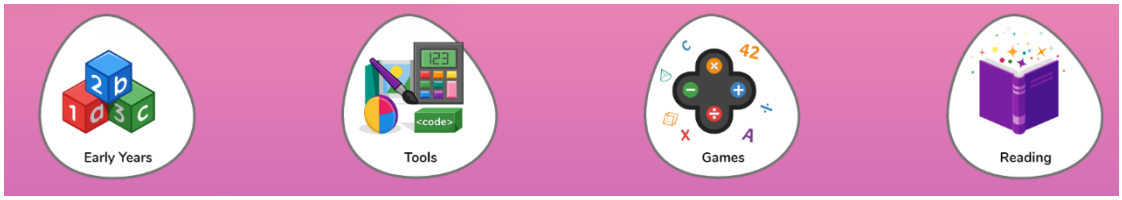
Saint Joseph's Catholic Voluntary Academy

How we teach Computing at Saint Joseph's

A Lesson Handbook: Guidance and Resources for Teaching Staff

Vision: Intention, Implementation, Impact	***Intent:*** Our intent is for pupils to become masters of using technology in a safe and secure way, as well as understanding the negative impact it may have. We encompass computer science, information technology and digital literacy within our curriculum and we want pupils to recognise how technology has developed in recent years and is continuing to develop over time. We want pupils to effectively demonstrate their technological skills and understand different ways that we can use technology. Pupils can be creative with technology and use different apps to demonstrate their knowledge effectively. ***Implementation:*** Computing as a stand-alone subject has several key components, each of which we aim to teach and fully instil the value of amongst our pupils. These are: Computer Science – Pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Information Technology – Pupils are equipped to purposefully create programs, systems and a range of content in order to develop products and solutions. They will be able to collect, analyse, evaluate and present data and information. Digital Literacy – Pupils are taught to use, access and express oneself through digital technology, including a critical understanding of technology's impact on the individual and society, at a level suitable for the future and as active participants in a digital world. ***Impact:*** Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. Evidence of pupils' work will be uploaded to Seesaw as a way of assessment and showing progression. Pupils will be able to apply their knowledge and skills of Computing to other areas of the curriculum.

Long Term/Medium Term Planning: Steps on Purple Mash	**Here is the Long-Term Plan for Computing.** **Cycle A** **Cycle B** We teach Computing as part of our Blocked Curriculum sessions. **Computing in separated into 3 areas:** **Computer Science (red)** – taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. **Information technology (blue)** – the organisation and manipulation of digital content. **Digital literacy (orange)** – use information and technologies to find, evaluate, create and communicate information. Each topic has a knowledge organiser which has the key vocabulary taught and the sticky knowledge needed. We use this on working walls and refer to this when something new is taught.
Lesson Approach / Weekly Planning Differentiation	We teach Computing as part of our Blocked Curriculum. We use Purple Mash for our Computing curriculum. All of the resources needed are on the website. Each pupil has an individual login where they can complete and upload their work.  The teacher will take the medium-term plan, the teacher notes, sticky knowledge document and key vocabulary and create their weekly plans, ensuring that it is meeting the needs of all children in the class. Each lesson starts with a revisit question from the previous session, followed by the key vocabulary focus for the lesson.

Cycle A	Advent 1	Advent 2 (1 week)	Lent 1 (1 week)	Lent 2 (2 weeks)	Pentecost 1	Pentecost 2 (3 weeks)
Year 1/2		Effective searching (2.5) Technology outside school (1.9)	Coding (1.7)	Lego builders (1.4) Grouping and sorting (1.2)		Spreadsheets (2.3) Pictograms (1.3)
Year 3/4		Online safety (3.2)	Coding (3.1 L1 and 2) (4.1 L3)	Graphing (3.8) Branching databases (3.6)		Email (3.5) Micro:bits (3.10)
Year 5/6		Online safety (5.2)	Coding (5.1 L1, 2, 4, 5) (6.1, L5)	Spreadsheets (5.3) Databases (5.4)		Game creator (5.5) Concept maps (5.7)

Cycle B	Advent 1	Advent 2 (1 week)	Lent 1 (1 week)	Lent 2 (2 weeks)	Pentecost 1	Pentecost 2 (3 weeks)
Year 1/2		Online Safety (2.2)	Coding (2.1)	Maze explorers (1.5) Making music (2.7)		Questioning (2.4) Presenting ideas (2.8)
Year 3/4		Online safety (4.2)	Coding (3.1 L3) (4.1 L4 and 5)	Hardware investigators (4.8) Effective searching (4.7)		Writing for different audiences (4.4) Logo (4.5)
Year 5/6		Online safety (6.2)	Coding (5.1 L3) (6.1 L1, 2, 3, 4, 6)	Text adventures (6.5) Quizzing (6.7)		Networks (6.6) Blogging (6.4)

Prior Learning/Recap	To start the lesson, there should be a recap of prior learning. At the start of every Computing lessons, we should be recapping the previous lesson. This poses 3 questions based on knowledge that has already taught. We have a spaced learning LTP where there are opportunities to revisit previous Computing knowledge. We use the sticky knowledge document to ensure previous years and current year knowledge is being revisited during these sessions.
Key Vocabulary	We have an overview of vocabulary taught for each year group. This is linked to our topics and are added to our working walls. Pupils should refer to this in their lessons.
Online Safety	Online safety is embedded into our Long Term Plan, through the digital literacy strand of the curriculum. Pupils are aware of the policies and procedures of Online Safety and the IVengers are there to support Online Safety in school. i-vengers
Assessment	**Assessment for learning** Questions on the worksheets are carefully constructed to assess: 1. Can children correctly perform the skill? 2. Do children have the ability to take perspective / perform the skill in a certain way? For this, children need to be able to comprehend. **Characterising Learners:** Working Towards: making a lot of mistakes, require a lot of teacher directed questions to develop their conceptual understanding. At National: Meeting the minimum expectation for each lesson. Above: These learners should access planned opportunities to dig deeper.
How do we cater for all pupils?	At St Joseph's, we ensure every student is both challenged and encouraged to reach their full potential. Our teaching embraces questioning techniques that stimulate critical thinking, urging students to delve deeper into various ideas. Feedback plays a crucial role in our approach; we focus on guiding students to reflect on their work, helping them identify areas for improvement. We strive to create a supportive environment where students feel empowered to think independently and develop their skills. Our aim is to challenge each student in a way that inspires them to continue striving for excellence in their learning journey. In this way, we foster a culture of curiosity and growth at St Joseph's. Meeting the needs of pupils with Special Educational Needs and Disabilities (SEND) at St Joseph's involves a strategic, inclusive approach that ensures all learners can access and engage with the curriculum. Initially all teacher plan for varying need using the EEF 5 a day approach. This includes ensuring that needs are met through explicit instruction, cognitive and metacognitive strategies, scaffolding, flexible grouping and use of technology.

	From there, if further support is required we will adapt the task through use of scaffolding, offering alternative formats of tasks, providing multi-sensory learning opportunities and adjusting the task's complexity. Where needed we can adapt the entire curriculum through modified content, providing flexible progression routes and specialist intervention. It is these strategies that support our varied needs in St Joseph's and ensure that each SEND pupil's individual needs are met in a structured, supportive, and inclusive environment. This not only enhances access to learning but also fosters independence, confidence, and long-term achievement. **Working Walls** Working walls are an important feature in our classrooms that help support children's learning. They are interactive displays that show current topics, vocabulary, key learning points, and examples of children's work. These walls are updated regularly so that pupils can use them as a reference during lessons, helping them to remember what they have learned and apply it to new tasks. By making learning visible and accessible, working walls encourage independence, build confidence, and help children stay engaged with their learning journey. **Marking and Feedback** Marking and feedback should be done at the point of teaching, in front of the child. Staff should be circulating the room, unless targeting specific children for support. Live marking allows the child to identify points of success or improvement at the point of learning. It also allows the teacher to identify areas which need further teaching, individually or whole class.
Homework	Homework There is the option for pupils to access Purple Mash from home to further develop their skills. We set half-termly homework which is project-based, where pupils have the opportunity to practise skills taught in that half term.