Shining in the Light of Christ to be the Best that we can be

At St Joseph's Primary School, we are committed to providing our children with a curriculum that has a clear intention and impacts positively upon their needs, enabling them to SHINE for life.

Curriculum statement for the teaching and learning of Mathematics.

<table>
<tr><td>INTENT</td><td colspan="3">At St Joseph's we intend to provide a quality curriculum that is aspirational and fosters a life-long appreciation, curiosity and enjoyment of Mathematics. We value mathematics as an essential, transferable life skill in which ALL can succeed. Our aspiration 'to be the best we can be' empowers our learners to 'SHINE' with a secure understanding of mathematics; fully equipped and confident to apply knowledge and skills through varied, appropriately pitched learning opportunities. We intend for our children to become 'Masters of Mathematics' with themes taught through a progressive and regularly revisited 'small steps' approach which coherently builds on what has come before. We use mistakes and misconceptions as an essential part of our learning process by encouraging resilience, adaptability and acceptance that 'struggles' are often a necessary step in learning. This, alongside meaningful and purposeful problem solving and reasoning woven through every math's lesson, provides our learners with the breadth and depth of understanding to succeed and SHINE.

Our intentions are fully underpinned by the aims of the National Curriculum which states that ALL children:

* Become fluent in the fundamentals of Mathematics.

* Are able to reason mathematically.

* Can solve problems by applying their mathematics.</td></tr>
<tr><td rowspan="2">Underpinned By</td><td>Manipulatives and Modelling (C-P-A)</td><td>Vocabulary rich environment</td><td>Fluency + Variation + Reasoning + problem solving = MASTERY of MATHEMATICS.</td></tr>
<tr><td>We intend for all teachers to model and teach strategies and skills of age appropriate, progressive methods and a range of manipulatives as outlines in our calculation policy. We intend for this to enable success for all through examples of good practice and maintaining high expectations of learning and achievement.</td><td>We intend to have high expectations of ongoing reasoning, full sentence answers and use of our stem sentence progression.
Pre and post teaching workshops alongside presenting, exploring and modelling use of vocabulary during lessons will help develop children's confidence explaining mathematically.</td><td>We intend for all children to become fluent in the fundamentals of mathematics through varied and frequent practice. We intend to provide all children with regular opportunities for application through increasingly complex problems over time. This is so that pupils develop a deeper conceptual understanding and confident automaticity to apply and reason without cognitive overload.</td></tr>
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Implementation	**Curriculum – NCETM and Ready to Progress Criteria.** All classes from EYFS to Year 6 use our whole school curriculum. This scheme has been tailored to the needs of our school using and combining NCETM professional development materials and the ready to progress criteria. All of these are based around the requirements of the National curriculum. 'Recap' elements are built into the curriculum to support learners with our recovery curriculum. Lessons are personalised to address the individual needs and requirements of different classes. The expectation is that the majority of pupils will move through each unit at broadly the same pace. Decisions about when to progress should always be based on the security of pupils understanding through ongoing assessment and the use of DFE 'Ready to progress' criteria as indicators.	**Morning tasks and 'Workshops'** All classes have a 'Morning task' set for the children at the start of the day to provide opportunities to revisit, recap and/or consolidate previous learning based on the needs of the children in each class. This ranges from mixed mental maths fluency, games, set online tasks, times table practice or a problem solving style investigation. Based on previous assessment in maths lessons and through marking and feedback teachers will take groups of children to carry out a 'Workshop' either during a 'chunked' maths lesson or as a pre/post teaching opportunity at points during the day. This ensures the children are confident and building greater fluency with taught skills before the next lesson or objective.	**Assessment** Through our teaching we continuously monitor pupil's progress against expected attainment statements for their age. We constantly carry out formative assessment judgements throughout lessons and provide timely, appropriate feedback at the point of learning to help all children learn and progress. Our formative assessments and observations support and inform our planning, teaching and provision. We have a whole school progression of statements linked to our internal tracking process (linked to the ready to progress criteria) which helps us to identify gaps and next steps in our teaching. Summative assessments are completed every 'big' term, results are logged and teachers cross reference these to our tracking statements in order to plot the children on our internal tracking system. This is discussed during Pupil progress meetings and used by SLT and SENCO to identify any children who may need additional support or challenge so that ALL can progress to be the best they can be.
	Concrete, Pictorial, Abstract (CPA) We implement our high quality mathematical teaching through a progressive bank of resources, manipulatives and strategies to support the development of a mathematical mindset, confident automaticity and a deeper conceptual understanding. This is outlined in our calculation policy. Children will begin learning concepts through CONCRETE resources or manipulative such as place value counters, base ten, numicon, bead strings, and Rekenreks. Once children have initially grasped a concept using CONCRETE equipment they will begin to apply understanding to PICTORIAL strategies using diagrams and images such as Hungarian number patterns, bar models and tens frames before progressing to more abstract questions. ABSTRACT maths relies on the children understanding a concept thoroughly and being able to use their knowledge and understanding to answer questions and solve problems using numerical representation rather than equipment or images.	**Continuing professional development (CPD)** At St Joseph's we are committed to developing Mathematics teaching and provision so that ALL children can progress and become the best they can be as mathematicians. We continuously strive to better ourselves and frequently engage in professional dialogue to share ideas, resources and approaches that have been particularly effective; drawing on the expertise and varied experience of the teaching staff. We regularly engage with our local Maths Hub – Boolean where we take advantage of any relevant training, working parties or research projects linked to our SDP, data analysis and action plans. We have recently been involved in 'Mastering Maths through subject knowledge', Whole staff reading and research on developing mathematical resilience, attendance and assimilation of workshops at our Primary Mathematics conference (including work on reducing cognitive overload with Craig Barton and Mike Askew), Bridging gaps in number (KS1) and Building times table fluency (KS2). We are currently engaged with NCETM working on 'Mastering Number' programme for KS1 and later in the year we will be working with Boolean on 'Teaching for Mastery'.	**Links and Whole school commitments** We are dedicated to providing our children with a wide variety of opportunities to explore maths outside of maths lessons in the classroom through visits, visitors and whole school themed days/weeks. We celebrate Maths week with a variety of creative and cross curricular approaches to maths themes across the school. To promote 'financial capability' and 'economic wellbeing' alongside PSHE objectives we plan to host an Enterprise Week in the Summer term linked with local banks and financial institutions. This academic year we have timetabled a Careers week to support the development of aspirations in our community where children will learn about jobs and careers using mathematics. At St Joseph's we are committed to building links and relationships with other schools to promote Mathematics.

	Home learning In order to help recall, consolidate and bridge individual children's maths skills from school to home we utilise Times tables rock stars' (for multiplication practice) and Mathletics (for all other themes and units.) Certificates and awards for Mathletics and Times table rock stars are awarded and celebrated as a whole school during celebration assemblies with the most active maths class being awarded 'Adam Up' our maths bear! In KS1 optional fact fluency home learning is set regularly to help consolidate or revisit previously taught themes at home. In KS2 home learning is set with weekly deadlines. These take form of mixed fluency calculations to help consolidate or revisit previously taught themes and times tables. This year we plan to introduce a new whole school fact fluency initiative to develop automaticity across the school and reduce cognitive overload.	**Working walls** Every classroom has a working wall dedicated to the current learning and themes being taught in maths. 'Bare Necessities' for these boards are outlined in our whole school curriculum and should include examples of children's workings out, CPA approaches being taught and key vocabulary. Where these are embedded the children use them successfully to support their learning. Examples of Concrete, pictorial and abstract methods will reflect the expectations outlined in our Calculation policy.	**Inclusion and Intervention** At St Joseph's we pride ourselves on providing equal opportunities for all learners to SHINE across the curriculum. Pupils who grasp concepts quickly are appropriately challenged through Mastery problems and expectations for reasoning. This should ensure a breadth and depth of understanding before acceleration onto new content. Those who are not sufficiently fluent with earlier materials should consolidate understanding through additional practice before moving on (See Morning tasks and Workshops) For those who need more targeted interventions, as identified through pupil progress meetings and internal analysis of data, groups of children are selected to work closely with a trained, specialist teaching assistant on bridging gaps in number and developing times table fluency. Our specialist teaching assistant is also actively involved in our local maths hub training and research project and supports the subject leader in implementing these strategies into the classroom. Both the subject leader and specialist teaching assistant meet fortnightly to discuss progress and next steps for the children.

Impact	At the end of each year, pupils have developed a love and appreciation of Mathematics in the wider world and will have made expected or better progress against their current years outcomes.			
	PUPIL VOICE Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about their love of learning in maths. They can articulate the context in which maths is being taught and relate this to real life contexts. They will be able to use targeted and appropriate vocabulary to help them explain their learning and understanding. Children will show confidence and believe they can learn about a new maths theme and apply the knowledge and skills they already have.	**EVIDENCE IN KNOWLEDGE** Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential. Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations. Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.	**EVIDENCE IN SKILLS** Pupils use acquired vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems. The flexibility and fluidity to move between different contexts and representations of maths. Children show a high level of pride in the presentation and understanding of the work. The chance to develop the ability to recognise relationships and make connections in maths lessons. Teachers plan a range of opportunities to use maths inside and outside school.	**OUTCOMES** At the end of each year we expect the children to have achieved Age Related Expectations (ARE) or make significant/accelerated progress towards ARE for their year group (based on COVID recovery curriculum expectations). Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge and application will receive appropriate support and intervention and will be tracked closely by the class teacher, subject leader and specialist teaching assistant. **MASTERY** All children secure long-term, deep and adaptable understanding of maths which they can apply in different contexts.