

St James' C of E Primary School



SAINT JAMES'
Church of England School



The St James' LEARN curriculum.

L	Love Jesus	
E	Equality for Everyone	
A	Attend every day	
R	Reach for the stars	
N	Never give up	

*We are walking hand in hand with Jesus
fulfilling the potential God has given us.*

'For with God nothing is impossible'

Luke 1:37

Mathematics Policy 2024

Luke 1:37 "For with GOD nothing shall be impossible"

Our LEARN Curriculum Key Principles:

Our **LEARN** curriculum ensures that our children are successful in learning and in life, no matter what their starting points and barriers to learning may be by:

- Promoting positive partnerships to support the families of our school who speak 15 different languages and who come from many varied faiths and none. So that ALL our pupils are settled in school and ready to **LEARN**.
- Providing nurture, emotional, financial, and spiritual support to our pupils and All stakeholders. So that families and children are fully supported and are in the best place they can be and ready to **LEARN**.
- By understanding our community and thus providing learning opportunities in environments which promote reading, oracy, and the constant development of vocabulary. So that our pupils are equipped with the skills they need to flourish in life and **LEARN**.
- By providing dedicated nurture spaces to offer emotional and practical support to meet the needs of ALL of our pupils thus allowing them to **LEARN**.
- A curriculum which will be inclusive, aspirational, and relevant and respectful to the culture and customs of our children and families. So that our children want to come to school, are engaged with their individual needs met, and experience a full and varied range of opportunities to enrich their lives and **LEARNING** experience.

Because we truly believe that **'For with God nothing is impossible'**

What is Mathematics?

Introduction

In Early Years, classes start with 'Number and Pattern' then move onto 'Shape, Space and Measure' and then move into 'Problem Solving'. From the beginning of Key Stage 1 until the end of Key stage 2, pupils will be introduced to a variety of topics that will be built upon through the years. Topics such as place value, the four operations, fractions and shape are revisited and explored at the relevant level yearly; other subjects such as algebra, ratio, decimals and time are introduced at the relevant year group.

We deliver an inspiring and engaging mathematics curriculum through the **Maths, No Problem!** scheme. Our lessons begin with a collaborative 'Explore' task in which children are posed a mathematical problem for them to discuss and explore. Resources and teacher talk are used to facilitate this. After that, our children begin to 'Master' their strategies to solve the problem. We use journaling to record different methods to reach the same answer, and discuss preferred and efficient strategies. The children then conduct their 'Guided Practice' where their teacher will work through similar questions with the class to address misconceptions and ensure our methods are being done effectively. Once we are confident that pupils are ready to progress, the children then work independently during their 'Independent Practice'. This is their chance to practice their taught methods more independently.

Intent

Mathematics has always been held in high regard at St James'. Topics are informed by the National Curriculum and are sensitive to the children's developmental stages and year group. The curriculum at St James' has been carefully planned and structured to ensure that current learning is linked to previous learning, building upon existing skills covered in previous years in more depth, and that the school's approaches are informed by current pedagogy. With God at the centre of our school, every child is valued. We prepare them to be a member of a class, school, and local community and also for their future role in modern Britain and as a global citizen.

The curriculum ensures academic success, creativity and problem solving, reliability, responsibility and resilience, as well as physical development. Wellbeing and emotional health are key elements that support the development of the whole child and promote a positive attitude to learning.

Effective Mathematics teaching will:

- Ensure that all children are capable of succeeding.
- Secure both fluency and reasoning skills.
- Use a concrete, pictorial, abstract (CPA) approach.
- Encourage the memorisation of core facts.
- Teach and model mathematical language and vocabulary.

Implementation

By the end of year 6, children will be equipped with a plethora of mathematical strategies with the relevant understanding to make connections between concepts. They will be able to apply this understanding to perform calculations and solve problems.

Planning is informed by and aligned with the national curriculum. Outcomes of work are regularly monitored to ensure that they reflect a sound understanding of the key identified knowledge. An important part of the Mathematics curriculum is the ability to retain and re-use knowledge, vocabulary and skills in a progressive and developmental way throughout the journey through school. Retrieval practice takes place within each lesson.

The Early Years Foundation Stage (EYFS) follows the 'Development Matters' as the supporting guidance, however the Early Learning Goals are the end point for our children in EYFS. Children within the EYFS are exposed to maths through the specific area of 'number and numerical patterns.

In EYFS maths is taught through continuous provision and carpet sessions. For Reception, we follow the Maths No Problem scheme.

Each topic has a well-planned, medium-term plan with National curriculum objectives recorded. Teachers annotate their MTPs and refer to them from lesson to lesson. Specific annotation will include personalised adaptations for all SEN, a plan for the TA and their role. Each topic has:

- Specific chapters dedicated mathematics concepts
- learning objectives for each lesson
- an end of unit task
- NFER assessments per term

From year 1 - year 6 classrooms, there will be a Mathematics working wall, detailing what the children are learning with key vocabulary, worked models and visual representations of concepts. The working wall will be updated frequently to reflect current learning.

Pupils will learn Mathematics using a variety of resources which may include (eg. for the topic of Place Value) place value counters, base 10, numicon, counters. Please note that resources change depending on the chapters.

Our lessons are based around 5 sections – please see below:

RETRIEVAL: review and activate knowledge/skills/vocab from previous lesson; previous series of lessons; previous linking of units, place learning in a wider context

HOOK: set the scene, provide the 'big picture', share learning objectives

EXPLICIT TEACHING & MODELLING: pupils receive new information; instruction/exposition (teaching) breaking down learning into small steps/modelling/scaffolding/sharing success criteria

INDEPENDENT PRACTICE & APPLY: pupils make sense of information, processing, understanding (learning)

PLENARY review information/learning

Depending upon each individual lesson, these will be implemented in a variety of orders.

Every child is capable of succeeding in mathematics.

- Every child and staff member to be excited about maths- a positive attitude to mathematics.
- Every child has access to a high-quality mathematics education with a mastery approach.
- Every child to develop fluent conceptual and procedural understanding in mathematics.
- Every child to use mathematical language to show understanding.
- Every child is given a challenge regardless of their ability.
- Every child can solve problems by applying their basic skills in mathematics.
- Every child to develop mathematical reasoning and problem-solving skills.
- Every child to develop a positive outlook on mistakes (marvellous mistakes) and overcome barriers to achieve corrections.

Perhaps the most noticeable impact is that children can apply the skills that they have learned to real-life contexts, allowing them to mathematically navigate their way through problems when required.

Support for SEND

Daily Mathematics lessons are inclusive to pupils with special educational needs and disabilities. Within the daily mathematics lesson, teachers have a responsibility to not only provide support for children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

Where appropriate, support and challenge can be given in a variety of ways specific to Mathematics. It is the teachers' responsibility to tailor resources to the needs of their children.

We support children with concrete resources to support concepts. We provide opportunities to teach key vocabulary for lessons to support the children's mathematical understanding and discussion. To cater to the needs of all pupils, staff may provide differentiated support in lessons. This is annotated onto the teacher's medium-term plans. It is important to extract relevant information from the knowledge organisers to support the achievement of the specific learning objective.

A pupil's English ability should not be a barrier to their mathematical knowledge and understanding.

Children who have been identified as having gaps or misconceptions in their learning, may be subject to additional intervention to bridge gaps.

Cognition and Learning	Communication and Interaction
• Pre- teach vocabulary is available for pupils who need it • Diagrams and pictures add meaning to text • Use of instant marking and feedback during tasks • Additional time provided to complete tasks • Ensure concrete materials, precise use of language, opportunities to reason/explain- make explicit links between each element • Differentiate learning by: resources, outcome and support • Offer alternative recording methods eg IT- typing, Ipad- voice recording/scribe • Make use of coloured paper for worksheets and background on IWB • Ensure all text is clear • Minimise copying from board • Consider positioning of children to board • Teachers conscious of sensory overload • Offer lots of praise. Verbal/dojo's • Make expectations clear when using equipment. • Use as many practical activities as possible. • Give clear instructions before/when packing away. • Guided practise and focus tasks used without too much emphasis on workbooks. • Journaling methods allow children to choose a method that works best for them	• Use simplified vocabulary whenever appropriate, to explain concepts. • Key vocabulary taught and displayed around the room. • Use plenty of visual aids to help understand concepts. • Instructions broken down into clear chunks. • Use multi-sensory approach to support spoken language. • Give demonstrations when necessary. • Share equipment within a small group. • Verbally tell findings to TA/T instead of writing. • Use talk partners to understanding of the concepts. • Use Tas effectively to scaffold learning. Explain language tasks, help understand questions and check understanding of the task • Use working walls to reinforce and revisit key mathematical vocabulary /concepts. New vocabulary is explicitly taught. Pre-teaching of vocabulary to those who need it. • Use pupil names to gain attention before directing task/instruction • Use multi-sensory approaches to support spoken language eg visual prompts and resources. • Ensure visual prompt can be clearly seen at all times • Teaching staff to monitor noise levels
Social, Emotional and Mental Health (SEMH)	Physical and Sensory
• Provide opportunities for kinaesthetic learning- each lesson will use resources • Make agreement with pupil of amount of recorded work expected prior to task. • Chunk instructions and learning and support this with visual cues- First, Next... • Use pupil interest where possible linked to the maths curriculum • Keep instructions clear and communicate all expectations calmly • Ensure access to a quiet, distraction free work area, space to work alone if necessary	• Adapt resources/equipment to suit the child's ability. • Concrete equipment and whiteboards used in each lesson • Give as much time as possible to complete the tasks. • Read out loud when writing key vocabulary on the board. • Allow ample time for thinking to complete tasks <u>Visual</u> • Short spells of visual activity • Consider appropriate seating

• Provide access to sensory materials eg fiddle resources when necessary (prior discussion with SEND co-ordinator/teacher before access). • Offer lots of praise. Verbal/dojo's • Make expectations clear when using equipment. • Guided practise and focus tasks used without too much emphasis on workbooks. • Journaling methods allow children to choose a method that works best for them.	• Use of different coloured paper/board background to reduce glare • Ensure appropriate lighting • Use of appropriate font size • Offer a range of writing materials eg pencil grips • Use clear verbal explanations when modelling maths concepts • Provide individualised resources for lessons eg. Key word bank, times table sheets, 100 squares, sentence starters • Encourage oral presentation of maths work in all lessons- teacher scribe when necessary <u>Hearing</u> • Check understanding of knowledge/instructions- clarify and repeat • Staff/pupil face one another when speaking- magnet/listening eyes • Speak clearly and ensure that you have pupils attention before speaking • Repeat key phrases and display on maths working wall • List tasks/examples/WAGOLL method on the whiteboard/working wall
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Impact

The teaching of Mathematics at St James' will enable children to have a wider and deeper understanding mathematical concepts, with the ability to make connections between topics where applicable. They will have a variety of methods to utilise to allow them to solve problems, and will be able to articulate their understanding of concepts verbally.

Assessment and Reporting

We assess children's work in Mathematics by making informal judgements as we observe them during each Mathematics lesson.

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Assessment is supported by use of the following strategies:

- Observing children at work, individually, in pairs, in a group and in class during whole class teaching
- Using differentiated, open-ended questions that require children to explain and unpick their understanding
- Teacher/pupil conversations about their ideas and understanding; facilitating and listening to discussions
- Providing effective feedback to engage children with their learning and to provide opportunities for self-assessment
- Book moderation and monitoring of outcomes of work, to evaluate the range and balance of work and to ensure that tasks meet the needs of different learners, with the acquisition of the pre-identified key knowledge of each topic being evidenced through the outcomes
- Analysing errors and picking up on misconceptions

At the end of the unit, children complete a chapter review to give essential information to the teacher the influence their future lessons. Where necessary, assessment for SEND children is bespoke to each individual child's needs and therefore could differ from child to child.

Every term children will be assessed against the NFER testing and the Year 6 will be tested on previous SATS papers. Through ROBUST pupil progress meetings targeting interventions are put in place to support children who find specific concepts difficult.

Classroom Support

Teaching Assistants and helpers are used in Mathematics to assist:

- In the classroom throughout the school by working with groups and individuals on task.
- In providing targeted and positive support to those pupils identified with difficulties.
- In providing other help, such as preparation of resources and display work.

Display

Teachers display the key vocabulary for their Mathematics topic on their class working walls as part of their Mathematics display. Part of the working wall will include visual evidence of what the children will be learning – as part of ST James' school, our working walls are imperative for our children. Working walls will be added to frequently to reflect current learning and will include pictorial representations, written methods/ worked models and stem sentences.

Monitoring

Monitoring of Mathematics is completed by the subject lead half termly. This can be found in the LEARN curriculum monitoring file. Any feedback from monitoring is shared to staff through E mails and one to one discussions.