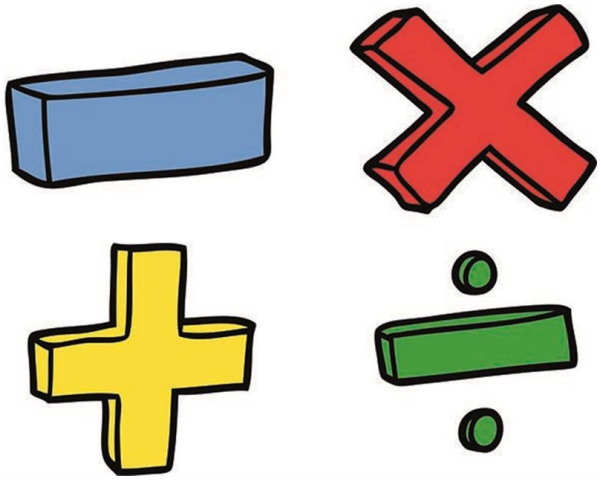
M A T H S

St Marys Junior School, Baldock SG7 6HY

Mathematics Policy

St Mary's Junior School



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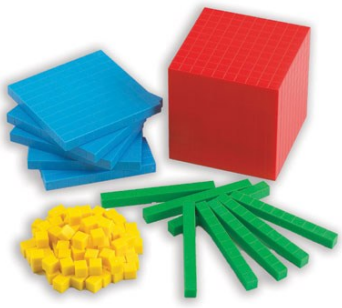

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Rationale

Maths is a core subject which equips children with vital, fundamental skills for many aspects of their lives. The purpose of this policy is to ensure that all children at St Mary's Junior school receive quality, consistent, thorough, progressive and varied maths teaching to effectively prepare them for the next stage of their education, and their lives beyond.

Principles

- ◊ Consistency of approach is key to raising standards in mathematics
- ◊ A progressive, mastery approach means that children develop a deep understanding of mathematics
- ◊ All children are supported to make effective progress in mathematics including those with SEND

Aims

- ◊ All children at St Mary's Junior School receive quality maths teaching
- ◊ Teachers have a secure understanding of how to support children to learn in mathematics
- ◊ All children make good or better progress in mathematics
- ◊

Monitoring and Evaluating

- ◊ Lesson visits/learning walks carried out by senior leaders and maths lead
- ◊ Book looks carried out by senior leaders and maths lead
- ◊ Pupil voice and discussions with staff about mathematics

Desirable Outcomes

- ◊ Improvement in outcomes for all children in mathematics
- ◊ Maths is taught consistently well across all classes
- ◊ Children make effective progress throughout the school

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Timetabling

Teachers should aim for five hours of maths lessons per week, although this may be reduced at times when classes are swimming or have other commitments out of the normal routine. In addition to this, classes should have a minimum of three 15 minute dedicated fluency sessions per week additional to the main maths lesson. Where children require additional maths support, pre-teaching or catch-up, these interventions will be fitted into the rest of the timetable for the week.

Planning

Maths at St Mary's Junior School follows White Rose learning sequences for teaching. Teachers may adapt these accordingly to suit the needs of the children in their class, but they will form the basis for the sequence of learning. During a lesson, the learning intention for the lesson will be clearly displayed and shared with the children. Work is recorded within the White Rose workbooks as well as additional tasks within maths books.

Written Work and Presentation

The majority of written work in maths is completed within the White Rose workbooks for each unit of learning. In addition to this, yellow, squared books are used for maths (large squares in LKS2 and smaller in UKS2 with exceptions made for children with specific needs). All maths work is completed in pencil apart from improvements and self-marking which is completed in purple 'polishing pen.' Children write the short numbered date at the top of their page.

When further work is needed to be completed in maths books, numbers are written with one digit per square with words written in normal handwriting on the lines of the squares. Crossing out is done with a single ruler line. Rubbers are only used in maths if permitted by an adult and improvements are made in purple polishing pen.

Assessment

Assessment in maths is be both formative and summative. Teachers use assessment for learning to adapt their lessons to meet the needs of the children in their class. Day to day formative assessment will inform next steps including which children need further scaffolding or those who need to be extended using greater depth activities. Summative assessment comes in the form of White Rose end-of-unit assessments in addition to termly White Rose assessments. In Year 6, past SATs papers will be used to assess maths.

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Independent Work and Scaffolding

All children within a class will have the same learning intention, but with appropriate 'scaffolds' to ensure that they are able to be successful (with the exception of those children working **significantly** below age related expectations and are unable to access with scaffolds).

Teachers should provide all children with the same, well-chosen, progressive questions that incorporate reasoning. 'Greater Depth' activities are provided for children who are confident to allow them to deepen and broaden their understanding. Open-ended, investigative tasks are used for this.

Scaffolding may include: concrete manipulatives and resources; pictorial representations; adult support; pre-teaching before the lesson; scaffolded worksheets and working walls within classrooms. Where a child is working **significantly** below age related expectations and is unable to access the main teaching with scaffolds in place, teachers should track back to earlier learning sequences to provide them with appropriate learning activities linked to the whole-class objectives.

Learning Environment

Every class has a maths 'working wall' which is developed throughout a learning sequence to provide children with reminders and scaffolds for their learning. Working walls sequence the journey through a learning sequence and are regularly added to and changed as children progress through the maths curriculum. Working walls may include: modelled examples by teachers or pupils; success criteria; key vocabulary explained; concrete and pictorial representations or interactive questions and activities for pupils.

In addition to working walls, other key high-value models will be displayed in classrooms in addition to the current learning sequence e.g. place value charts, clock labels and number lines/squares.

Homework

Year 3 and 4

- ◊ Weekly times table homework
- ◊ New times table set for homework each half term in Years 3 and 4 as outlined above
- ◊ Homework focusses on conceptual understanding of times tables in the earlier stages (arrays, repeated addition etc) but can move onto speed retrieval later

Year 5 and 6

- ◊ Weekly, purposeful maths homework task set relating to the area of maths covered during that week

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Feedback in Maths

Feedback is integral to children's progress in maths. Feedback can be both written and verbal, and should be immediate (during the lesson) where possible.

Pink tick or dot will be used to assess learning within maths by adults. Children will use polishing pens (tick or dot). Corrections will then be made next to or near the pink dot.

When working in a group with a TA, TAs will be required to follow the same feedback responses as above. Further comments (verbal or written) can then be made by the class teacher if needed.

Number reversals will be circled in pink and the child will be asked to copy that correct reversal a few times in their book to encourage practice of the correct number orientation.

VF comments may be used, when required, to show a conversation has taken place with a child leading to progress with their learning. **Developmental written feedback** can also be used to provide feedback to move learning forward during the lesson, or to consolidate learning.

This could look like, but is not limited to;

- 'Now try this' comments
- Seek and destroy questions (odd one out)
- Always, sometimes or never statements
- Destination question

Marking Codes Used in Maths

Code	*Explanation*
R	***Redraft***
I	***Improvement***
VF	***Verbal feedback***

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Fluency Sessions

Discrete fluency sessions are vital for developing children's mastery of maths. It provides an opportunity for revision and embedding of core maths skills. At St Mary's daily 15 minute dedicated fluency sessions are taught each week additional to the main maths lessons. HfL fluency resources are used to deliver these sessions.

Fluency sessions should be interactive, well-paced and inclusive. Each session will involve five different problems/questions using the following headings:

- **Daily counting** (whole-class counting activities relating to times tables as well as counting in other intervals such as decimals, fractions etc)
- **Number Cruncher** - a number related problem to embed place value
- **Previously…** - A problem to revise something that has been covered in maths lessons so far within the current academic year to ensure secure understanding
- **Out now!** - A problem that is related to the current sequence of learning being taught in maths lessons
- **Coming soon…** - This question will involve pre-teaching to prepare children for the next sequence of learning that will be covered in maths lessons. Teachers should track back to previous year's content to ensure they are ready for the new learning when they get to it in maths lessons.

Teachers should use the same five questions each day with small daily tweaks to embed and build upon understanding. Guidance about daily tweaks is given within the HfL resources. Teachers should use formative assessment for learning to address misconceptions and challenge.

Times Tables

Times tables are a core and integral part of mathematics at St Mary's Junior School, as it feeds into so many other areas of maths. Children complete a statutory times table test at the end of Year 4 so the aim is that children are secure in their times tables by this point. In Years 3 and 4, teachers revise and then build on the foundations started in Year 2. Times tables are taught in in fluency sessions and as part of maths lessons through a variety of methods. Times tables forms the basis of maths homework in the lower school. A new times table introduced every half term as follows:

Year 3

Autumn: Recap x2, x5, x10 from Year 2

Spring 1: x3

Spring 2: x4

Summer 1: x8

Summer 2: All of the above

Year 4

Autumn 1: Recap x3, x4, x8 from Year 3

Autumn 2: x6

Spring 1: x11

Spring 2: x7

Summer 1: x9

Summer 2: x12