

Mission Statement

St. Michael's Maths Vision

Aims and Objectives

We aim to teach Maths in a way that:

- Children become fluent in Maths, reason and explain and solve problems.
- Ensures that children experience Maths in a hands on approach.
- Inspires children to reason about their knowledge and use appropriate vocabulary to support this.
- Develops mental strategies.
- Challenges children to stretch themselves and to take risks in their learning.
- Ensures that children in Key Stage 1 are secure in their basic number knowledge and number bonds within 20.
- Ensures that Key Stage 2 are secure with their times table knowledge and recall.
- Ensures that all children have the opportunity to complete reasoning and problem solving challenges at an appropriate level.

Role of the Subject Coordinator

The role of the subject coordinator is to:

- Support quality teaching, planning and assessment
- Planning and leading staff meetings
- To lead parent workshops and information sessions as appropriate
- Provide quality resources - maintain the Maths resource cupboard and update resources when required.
- Complete learning walks and book trawls.

- To keep knowledge and skills up to date in line with changes in National and local policy.
- Support other staff in school including NQTs and RQTs, including group planning sessions.

Maths Curriculum Planning

Maths is taught and planned in line with the White Rose yearly objectives and is grouped according to each strand of the National Curriculum. Additional units have been added to allow for further consolidation of place value throughout the whole school. The Maths lead provides each year group with long term and medium term plans and these are used to plan individual units and lessons within the year group. This allows for consistency across year groups.

Maths should be taught daily across all year groups and additional morning activities (SODA- start of day activities) should be used to allow children to revisit, practise and consolidate previous learning, including key number facts.

Lessons are planned to incorporate concrete, pictorial and abstract methods (CPA approach) for all children throughout each year group. This will allow children to experience the physical aspects of Maths before finding a way to present their findings and understandings in a visual way. The CPA approach is clearly identified in a step by step process in the school calculation policy.

Opportunities for reasoning and problem solving are to be regularly planned into lessons to allow children to demonstrate their understanding of concepts. Reasoning is also evident throughout green pen marking (see separate Maths marking policy **appendix 2**). In line with the teaching of problem solving, the use of bar modelling has been introduced throughout the school and this provides children with a visual method to support their workings.

The use of Numicon in the Early Years is now in place and this is actively being used to support number recognition, the value of a number and addition and subtraction. This works in line with the whole school CPA approach.

As a school we recognise the importance of fluency in maths and how this can support children in all areas of maths. Therefore, we have a clear progression of

key skills that develop throughout the year groups, focusing on key number facts that should be rapidly recalled. (See separate progression map **appendix 1**)

Resources

We have a range of resources to support the teaching of Maths across the school. These are kept in a central resource cupboard that is organised according to each strand of the National Curriculum.

The Early Years have their own store of Numicon shapes and pegs to support within their teaching. These are to support both Nursery and Reception.

Additional resources to support the planning and teaching of Maths can also be found on the school's shared network. These include reasoning activities, problem solving tasks and all required Maths policies.

To support the teaching and consolidation of number bonds and times tables, children use a number of online resources, including TT Rockstars and Numbots. Children have access to these both in school and at home.

Health and Safety

Teachers always teach the safe use of apparatus and equipment and insist on good practice. Each child is taught to return and store apparatus and equipment correctly when not in use.

Differentiation and Inclusion

Each child will have access to all aspects of the Maths curriculum and to experience the full range of Maths activities. Therefore, throughout the delivery of Maths we will ensure that a variety of learning styles and teaching methods are adopted and the use of the CPA approach will be available to all.

Each lesson will incorporate clear differentiation between ability levels, achieved through the use of teacher or support staff, resources or on occasions, outcome.

Intervention groups take place throughout school either as part of the main Maths lessons or in addition to the whole class session. These are planned by teachers and delivered by teaching assistants.

Equal Opportunities

It is vital that all children feel able to participate, contribute and achieve Maths and all children are encouraged to achieve regardless of background, gender or ethnicity.

Special Educational Needs

Children with special educational needs are supported in Maths through quality first teaching and clear differentiation. Additional support may also be put in place through the use of resources and additional focus groups or interventions.

Where needed this may be recorded on a school support plan (SSP).

Assessment

- Assessment for learning should be evident in all lessons allowing the class teacher to adapt the teaching and input as required.
- Daily marking of written work should be evident and green reasoning stickers/developmental marking show children's further understanding at least twice a week. Work should be marked in line with the school Maths marking policy and allow children to further develop their learning. (See separate Maths marking policy)
- Termly assessment is completed for each child using OTrack which is in line with the White Rose yearly objectives. These are used to provide a judgement of progress and achievement. (Beginning, developing, secure)

Monitoring and Review

The monitoring of the standards of children's work and the quality of teaching in Maths is the responsibility of the subject coordinator. It also involves supporting colleagues in the teaching of Maths; informing staff about current

developments in the subject and providing a strategic lead and direction for the subject. The use of learning walks and book trawls also support this and allow the coordinator to monitor the teaching and learning taking place.