



THE MOSLEY ACADEMY



PROCEDURE STATEMENT FOR MATHEMATICS

The Mosley Academy's Mathematic Intent:

At The Mosley Academy we believe that Maths equips pupils with the uniquely powerful set of tools to understand and change the world. These tools include number fluency (including times tables), logical reasoning, problem solving skills and the ability to think in abstract ways.

Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics.

The National Curriculum for mathematics describes in detail what pupils must learn in each year group. It is vital that a positive attitude towards mathematics is encouraged amongst all of our pupils in order to foster confidence and achievement in a skill that is essential in our society.

At The Mosley Academy we use the National Curriculum for Mathematics (2014) as the basis of our mathematics programme and we use White Rose Maths as a spine for our Maths lesson planning. The Times Table Rockstars platform is also used to raise the profile of times tables and enhance learning both in school and at home.

We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education.

INTENT AND RATIONALE

Mathematics is a core subject of the National Curriculum. It is given a high priority at The Mosley Academy and, as such, is taught a minimum of 4 hours a week, from YrR-Yr6.

Children at The Mosley Academy make excellent progress in mathematics and cohorts regularly leave Year 6 with standards that are well above the national average.

We aim to present the subject as one that the pupils can use and enjoy, whilst making valuable links that enable children to realise how Maths is also a tool to be used in the world beyond the

classroom.

MAIN AIMS

- To equip all our children with the basic numeracy skills necessary for life.
- To support children in making sense of number problems, including non-routine/'real' problems, encouraging them to identify the operations needed to solve them.
- To enable children to make quick recall of basic mathematical facts including times tables up to 12X12 by the end of Year 4.
- To encourage children to think clearly and logically, showing increasing confidence in overcoming difficulties.
- To encourage a positive and persevering attitude to mathematics through appropriate work, encouragement and support.
- To enable children to achieve their true potential in mathematics.
- To support all children in their work, at whatever level.
- To provide a stimulating environment for mathematical activities.
- To encourage an understanding of appropriate mathematical language.
- To promote mathematical reasoning and explanations.
- To emphasise the interconnections between mathematics, science and technology.
- To provide opportunities for children to deepen their understanding of mathematical concepts through problem solving
- To facilitate and encourage mathematical discussion; emphasising reasoning and justification using mathematical language (age appropriate)

INTENDED AUDIENCE

All teachers, teaching assistants, governors, school inspectors and anyone who is involved in Maths education in the school.

IMPLEMENTATION:

TEACHING METHODS

All children will have access to appropriate Maths equipment and I.C.T. equipment and instruction on its use.

Pupils will be grouped appropriate to the task in hand and according to the teacher's professional judgement.

Groups in Maths are fluid and subject to regular change, based on a variety of factors.

Work will target children's individual starting points and will be based on prior assessment / pre teaching outcomes in conceptual understanding

Lessons will follow the requirements of National Curriculum 2014 however; decisions about when to progress will always be based on the level of mastery of pupils' understanding and their readiness to progress to the next stage.

Masterclasses will be held at regular and timely intervals each week to ensure that any mathematical misconceptions are addressed and corrected, allowing children to become sufficiently fluent, before movement onto the next area of learning.

Lessons will have clearly defined objectives appropriate for the children involved, as well as clear success criteria.

Children will have access to mathematical 'toolkits' that will provide them with 'steps to success' for the areas of Maths they are working on.

Teachers will work through a Concrete > Pictorial > Abstract (CPA) method of learning when introducing new topics to ensure all learning styles are catered for and children are exposed to the concept of Maths in visual and kinesthetic ways.

Differentiation through task, time given, support level provided, resource access and outcome will enable all the children to access the National Curriculum in mathematics.

Pupils who grasp concepts rapidly are challenged through being offered sophisticated problems, before any acceleration through new content.

This ensures that children's learning is deepened and conceptual understanding is fully embedded at a higher level.

Teachers use White Rose Small Steps to Progression resources and Target your Maths textbooks (alongside many other resources) to support work and to reinforce or extend individuals or groups. In KS1, teachers have access to the DFE approved 'Maths No Problem' scheme of work that supports guided/shared work, independent work and extension into reasoning and problem solving tasks. Any single scheme is not used exclusively though and lessons are planned and resourced by the teachers, based on their professional judgement on

what their class requires to make the best possible progress.

LESSON STRUCTURE:

Lessons will usually contain the following:

Oral and mental calculation

Lessons may begin with a "warm-up activity".

This work will involve the whole class in an activity which includes interaction, discussion, explanation and justification.

Starters will be kept short and focused to allow for sufficient independent work. The theme may focus on number fluency/times tables recall to ensure such objectives are consistently worked upon throughout the year.

The main teaching activity

The main teaching activity may begin with the whole class, dependent on the needs of groups of children and the level of challenge they are presently accessing. Teachers may continue to work with the whole class or more often, will focus their attention on a group or occasionally on individual pupils. Teaching assistants are deployed to both support and extend small groups of children. Children are encouraged to engage and act upon previously set 'next steps' for learning (this may include completing corrections) before they move on.

At the end of a Lesson:

To round off the lesson teachers will emphasise the main teaching point of the lesson and refer children back to their objective(s). The pupils will have an opportunity to share their experiences with each other and learn from each other's work. Alongside this, they may begin to reflect on their own rates of learning and may communicate with the teaching adults how they feel they have progressed within a lesson. An insight or link to future learning may also be used to end the lesson. The plenary does not always have to be at the end of the lesson, a plenary can be used to consolidate or reinforce knowledge and understanding at an appropriate time in the lesson.

ASSESSMENT AND MARKING

A variety of assessments will be used to build a highly accurate teacher assessment for each child. Forms of Maths assessment that will be used include:-

- Teacher / TA live marking (following 'Go Green, Think Pink' strategy - see marking procedure for details)
- Masterclass intervention - small group / individual targeted sessions led by Teacher/TA

- Weekly Times Tables - in class - testing
- End of unit 'mini assessments' - Using White Rose (WR) resources (Yr2-6)
- Half termly times table assessments
- Termly tests for Y1-6 - Using NFER Assessments (Yr1-6)
- End of Academic Year triangulation using pupil books, teacher judgement and NFER assessment material outcomes.

Marking in Maths will be regular, with verbal feedback used alongside to extend children's learning further. Giving the children answers to set activities so they can 'self-mark' will be used as a valuable form of formative assessment, as it gives the children instant feedback and allows the teacher to immediately find out individual children's successes/areas for development. This information is then used to form the content of subsequent, required masterclass sessions that are run after the Maths session.

PERSONALISED LEARNING AND MATHS

Personalised learning is a powerful tool to help raise standards in Maths. In Maths, the children will be encouraged to challenge themselves and move onto more complex tasks when they have shown good understanding in the fluency stage. This will help teachers to move children on in their learning at an effective pace to facilitate the best possible progress within a lesson.

At The Mosley Academy, the children will be given opportunities to assess their own work, using the success criteria / toolkit used in the lesson.

Children may make reflections on their Maths work, with KS2 children reflecting more formally on occasions, using learning conversation statements in their books. (See personalised learning procedure for further information.)

PLANNING

Long term planning will reflect the National Curriculum 2014.

Medium term planning will follow the White Rose 'Mastery Maths' structure.

Short-term planning will be done on a weekly basis, by the class teacher(s), with daily assessments made of each lesson.

Lesson assessments will be used to assist the teacher's future plans.

Amendments to short-term plans can be made daily if the need arises through teachers' personal annotations.

Teachers plan for their own classes and groups but call on the advice of their colleagues and the curriculum leader where appropriate.

Teachers plan co-operatively across the key stages and between classes. At the end of each school year a teacher will liaise with the class' previous teacher to ensure progression and continuity.

IMPACT:

At The Mosley Academy we believe implementing such a Maths curriculum ensures children leave our setting as well rounded, self-motivated children who enjoy learning Maths.

We believe secondary settings continue to regard our children as 'noticeably Mosley' in their drive to be the best they can be.

Our Year 6 children leave Mosley 'secondary ready' and children moving throughout the primary years are facilitated to be as 'transitionally ready' as they can be.

Throughout the implementation of Maths across the school, it is clear that teachers are confident to change and adapt Maths sessions to meet individual needs and best foster progress both within lessons and across time.

Progress is monitored closely through children's work scrutiny, planning monitoring and data analysis. Doing this throughout all years from EYFS-Year 6 means that the whole staff team is part of each child's learning journey throughout their Primary education.

This, in turn, ensures that standards in Maths lessons remain high and expectations of both pupil and staff performance are challenging year on year.

MATHS SUBJECT LEAD:

One member of staff is designated as Maths subject leader.

The Maths Subject Leader at The Mosley Academy is:

Mrs. Ashley Carter.

The subject leader's role includes: -

- Supporting all staff in matters relating to the teaching of mathematics in school
- Preparing a draft procedure for staff and governor discussion
- Helping to standardise planning
- Auditing and updating resources
- Monitoring and evaluating resources
- Leading staff meetings to discuss mathematics in school
- Leading staff CPD on Maths Mastery / Curriculum updates
- Leading parent workshop meetings advising on teaching methods / assessment
- Conducting book trawls to monitor the quality of learning and teaching in Maths
- Conducting lesson observations to monitor the quality of learning and teaching in Maths
- Speaking to children (learning conversations/pupil voice) to monitor the quality of learning and teaching in Maths

- Collecting and analysing data to assess the performance of mathematics across the school termly
- Challenging teachers on their class' intervention requirements to ensure the best possible progress is made by all
- Reporting to Governors (termly)
- Reviewing teachers' plans (termly)

SPECIAL EDUCATIONAL NEEDS

Provision for children with Special Educational Needs, in relation to mathematics, will be made through a partnership of all staff in the school.

All children will have access to a broad and balanced curriculum, which includes mathematics.

Extra support will be provided, where necessary, to enable all pupils to access the mathematics curriculum.

(Refer to The Mosley Academy's Special Educational Needs Procedure)

EQUAL OPPORTUNITY

All pupils irrespective of age, gender and ethnic origin are entitled to participate fully in, and benefit from, a broad range of appropriate mathematical activities at every Key Stage of their mathematical experiences.

(See Equal Opportunity Procedure.)

MONITORING AND EVALUATION

Evaluation and review of the Procedure for Mathematics takes place on an annual basis. All staff are involved in any changes or adaptations to the Procedure.

Monitoring and evaluation of planning, teaching and children's learning takes place on a daily, weekly, termly and yearly basis.

All staff are involved in the monitoring and evaluation of S.A.T.S. results and papers. (See Monitoring and Evaluation Procedure.)

TRAINING

INSET training is encouraged and provided, primarily through our membership of the John Taylor Multi Academy Trust (JTMAT), where individual training at courses, and other training that is relevant to teachers, teaching assistants and governors, is available.

Expertise in school allows us to provide updates and other training for staff if appropriate. We also invite parents to attend curriculum afternoons/workshops at which the staff team give information and advice as well as updates to the Maths curriculum.

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