MARISH

ACADEMY TRUST

Mathematics Policy

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Mathematics Team

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Contents

Introduction

Mathematics enables children to understand some of the universal laws of the world in which they live. It is a network of concepts and relationships, which provide a way of viewing and making sense of the world. Mathematics is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore. Mathematics skills have a wide application in other subjects and vocations.

At Marish we have consolidated a curriculum that is designed to meet, and in many cases, exceed the requirements of the 2014 curriculum. We believe that the curriculum has to be shaped and crafted to meet the specific needs of our children within an ever changing community context. Therefore, we endeavour to extend and enrich that curriculum whenever possible and the description of our practice which follows reflects this.

Aims

Using the new curriculum, it is our aim to develop:

- A positive attitude towards mathematics and an interest in mathematics.
- Competence and confidence in mathematical knowledge, concepts and skills.
- An ability to solve problems, to reason, to think logically and to work systematically and accurately.
- Initiative and an ability to work both independently and in cooperation with others.
- An ability to reason verbally about mathematics problems.
- An ability to use and apply mathematics across the curriculum and in real life.
- An understanding of mathematics through a process of enquiry and experiment.
- An understanding of mathematical vocabulary.
- A variety of mental strategies for solving problems.
- An awareness of each of the four number functions.

Following the new Early Years Framework and Development Matters, it is our aim to develop a strong grounding in number which is essential so that all children develop the necessary building blocks to excel mathematically. By the end of the Early Years Foundation Stage, children should be able to:

- count confidently
- develop a deep understanding of the numbers to 10, the relationships between them, and the patterns within those numbers.
- develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.
- develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.

- develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

Delivering the curriculum

The teaching and delivery of mathematics at Marish Academy Trust aligns with the National Curriculum 2014, ensuring a structured and progressive approach to mathematical learning. The curriculum is broken down into key strands, including Number, Measurement, Geometry, Statistics, and Algebra (in Key Stage 3). Each strand is taught with a clear focus on fluency, reasoning, and problem-solving to develop pupils' conceptual understanding and ability to apply mathematics in a range of contexts. Lessons are planned to build on prior knowledge, using concrete, pictorial, and abstract methods to deepen understanding.

Teaching and Learning Strategies

Each class teacher is responsible for the mathematics in their class in consultation with, and with guidance from, the mathematics team.

The approach to the teaching of mathematics within the school is based on four key principles:

- Mathematics should be taught at least once a day.
- Investigation, demonstration of understanding, explanation and application of knowledge must be involved in mathematics lesson.
- Learning that begins in the concrete and moves to the pictorial and then the abstract.
- An emphasis on mental calculation and secure rapid recall of basic facts should be encouraged.

Lessons are designed to be engaging, challenging and reasoning-focused. We expect all of our children to be able to justify their methods verbally and/or using written explanations and diagrams. Lessons are planned using a common planning format and both teaching and planning are monitored by the mathematics subject leads, Maths team and Senior Leadership Team. Mathematics planning has been supplemented by multiple staff meetings, inset day training sessions and coaching of individual members of staff.

Teachers of the Foundation Stage base their teaching on objectives in the Early Years Foundation Stage; this ensures that they are working towards the 'Early Learning Goals for Mathematical Development'. Towards the end of Reception teachers aim to draw the elements of a daily mathematics lesson together so that by the time pupils move into Year 1 they are familiar with a longer lesson.
Through careful planning and preparation, we aim to ensure that throughout the school pupils are given opportunities for:

- practical activities and mathematical games
- problem solving
- individual, group and whole class discussions and activities
- open and closed tasks
- a range of methods of calculating e.g. mental, pencil and paper and using a calculator
- working with computers as a mathematical tool

Organisation

Mathematics is allocated 45 – 60 minutes every day in Key Stages 1 and 2. In addition to this, extra time is allocated for booster classes and support groups across both schools. Streaming is used in all year groups so planning and adaptation can be tailored accordingly.

In addition to this, some aspects of the Mathematics Framework are incorporated into other subjects e.g. ICT, science, geography, history.

In the Foundation Stage Maths is taught daily as an integral part of all activities. There is a whole class input and the children then have opportunities to work in a focus group with a practitioner or independently.

Equal Opportunities at Marish Primary Inclusion

At Marish Academy Trust, Mathematics is taught to all pupils, whatever their ability and individual needs. Mathematics forms part of the Academy Trust curriculum policy to provide a broad and balanced education to all pupils. Through our Mathematics teaching we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

We aim, within Marish Academy Trust, to provide equality of opportunity for all pupils whatever their age, ability, gender, race or background. We want all our pupils to achieve their full potential during their time with us. As such, we work to ensure that our expectations, attitudes, and practices enable all pupils to reach their potential.

Within the daily mathematics lesson teachers not only provide activities to support pupils who find mathematics difficult but also activities that provide appropriate challenges for pupils who are high achievers in mathematics.

Pupils with English as an Additional Language (EAL)

We recognise that children with English as an Additional Language may be able mathematicians, but may need support with gaining the English necessary to access the mathematics curriculum. This will not prevent them from working with mathematicians of their own ability and appropriate support is provided to facilitate this.
All pupils with EAL are provided with opportunities to achieve in this subject area. When appropriate, activities are differentiated so that all learners can access the curriculum. At

specific times, the EAL support team work alongside pupils to support them with their learning. We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multi-cultural aspects of mathematics.

In the daily mathematics lesson, we support pupils with English as an additional language in a variety of ways e.g. repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging pupils to join in counting, chanting, finger games, rhymes, etc.

Disability Statement

Marish Academy Trust is committed to ensuring equal treatment of all pupils with any form of disability and will ensure that disabled people are treated favourably in any procedures and practices. When a pupil's disability has been disclosed, the school will ensure reasonable adjustments are put in place so that they can have full access to the curriculum. For further details please refer to the school's Disability Equality Scheme.

Gender Equality

Staff at Marish Academy Trust, ensure that current and future policies and practices in this subject do not discriminate against either sex, or maintain or lead to gender inequality.

Special Educational Needs

At Marish Academy Trust, we are continually striving for an inclusive multi-sensory approach, which values and embraces the individual learning differences of the pupils within our school. Therefore, in addition to targeting individual needs through differentiation and intervention programmes, we are also focusing upon specific areas within our mainstream classrooms, with the aim of continually improving and developing our inclusive practice. This includes the use of manipulatives such as dienes, 100 bead strings, place value counters etc. visual timetables, colourful semantics, visual, auditory and kinaesthetic prompts.

Assessment and Record Keeping

It is the responsibility of the teacher to monitor the progress of the pupils in order to plan the next stage of the learning.

During the Summer term Y6 pupils are assessed in accordance with the National Standard Assessment Tasks (SATs) Records of these tests are kept in accordance with the school's Assessment Policy. Teachers will take into account both pupils' scores and their performance in class before entering a level on Target Tracker. Year 4 children complete a Multiplication assessment in the Summer term which supports the development of a fundamental basic grasp of numeracy.

Years 1-5 are assessed through the use of PIXL assessments and these are completed termly. Through data entry PIXL creates a question level analysis that can be used to inform future planning and intervention. Data is recorded on the online platform Sonar termly and then monitored by subject leads, year leads and SLT.

The curriculum coverage is shared with all pupils at the beginning of lessons. These contextual slides allow pupils to know what they have to achieve and to monitor their own progress. These contextual slides are a useful tool in supporting teacher and self-assessment.

In the Foundation Stage, the children are assessed in line with age related expectations and records of these tests are kept in accordance with the school's Assessment Policy.

Standards of achievement in mathematics by all our children are constantly monitored and reviewed by class teachers in conjunction with teaching assistants, the mathematics subject leaders, phase leaders, SLT and the Governing Body.

During the introduction to new topics, children will be provided a 'cold task' – a task in which is based on the new learning to assess quicker if a child already has that knowledge. Cold tasks are used to show progress in books over time and identify opportunities to extend learning. A 'warm task' will otherwise be provided to act as a starter; building on from previous learning.

Marking

Work is marked in accordance with the Academy Trust's Marking Policy. Next steps and challenges are given to enable children to consolidate or deepen something they have already learnt or to challenge them to advance their knowledge independently.

Presentation

- In mathematics the date should be written numerically e.g. 12. 9. 04 and underlined in pencil.
- All mathematics work should be completed in pencil; no pens are to be used.
- Cross out any mistakes/changes with a ruler. Rubbers may be used for constructions.
- Question numbers should be written in the margin
- Numbers are to be set out with one digit per square. A line should be ruled at the end of a piece of work
- All shape work is drawn accurately using rulers/compasses unless a sketch is permitted/requested.

Resources

Essential equipment such as number lines, 100 squares, place value counters, counting sticks, dienes, 100 string abacus beads are available in the maths cupboard in maths team classrooms throughout the Trust for teacher and pupil access. Additional resources, such as clocks, fraction boards, Cuisenaire rods, scales, trundle wheels, 2D and 3D shapes, measuring jugs are available throughout the school.

ICT

Information and Communication Technology enhances our teaching and learning in mathematics, wherever appropriate, in each key stage. Pupils use the computer suite and individual devices in classrooms to enhance their skills in a variety of ways, such as data handling, researching information on the Internet, presenting information and using digital cameras. Staff and pupils are also encouraged to use the IWB in lessons, with high quality resources available, again where appropriate.

The recent introduction of Google Classroom creates an inclusive opportunity for students to follow our mathematics curriculum outside of school. Children will be able to access the same mathematical content as they would for their lessons in school.

We have a number of online subscriptions to support all children with fundamental numeracy, times tables and the curriculum:

Times table rockstars – To strengthen multiplication and division facts in line with the Year 4 National multiplication check 'MTC'. We will continue to offer this practice throughout all key stages to raise multiplication attainment to support Year 6 children in having a strong times table foundation ready for secondary school.

Numbots - NumBots is all about every child achieving the "triple win" of understanding, recall and fluency in mental addition and subtraction, so that they move from counting to calculating.

Maths.co.uk- Maths.co.uk provides schools with a comprehensive online platform designed to support high-quality maths teaching and learning. It offers a wide range of interactive resources, including curriculum-aligned lessons, practice exercises, and assessments tailored to different year groups and abilities. The platform enables teachers to track pupil progress in real time, identify gaps in understanding, and provide targeted interventions to support individual learning needs. With engaging activities and adaptive learning tools, Maths.co.uk helps to reinforce key mathematical concepts, develop problem-solving skills, and promote a mastery approach to learning.

Homework

Homework is set for Mathematics in accordance with the school Home Learning Policy. Mathematics homework books are sent out at the beginning of each academic year for years 1 to 6.

After school opportunities

Year groups 1-6 offer after school sessions to target individual children. These sessions allow children the opportunity to consolidate and to address gaps in learning.

Parent Partnership

It is our aim to have all parents and carers actively engaged in their children's learning. With this in mind we offer a range of opportunities for parents to be involved both at home and at school.

Many children come to school with an understanding of some of the purposes and functions of mathematics. These experiences are valued by the school, and parents are encouraged to exploit their children's interest by including them in activities such as measuring, cooking, shopping and telling the time. Parent workshops are conducted to bolster their understanding of the new curriculum and their ability to support their children through summative assessments.

The Role of the Mathematics Team

The main responsibility of the mathematics team is to support teachers, so that the quality of teaching and levels of attainment by pupils are continuously improving.

The Mathematics team is responsible for:

- Supporting curricular enhancement.
- Identifying ways forward for the teaching of mathematics.
- Supporting and working with colleagues to improve mathematics teaching trustwide.
- Monitoring the teaching of mathematics within the school.
- Keeping an up-to-date set of children's books with examples of good progress and good planning.
- Investigating and evaluating mathematics data.
- Supporting colleagues with planning.
- Triangulating mathematics data, progress in books and delivery of lessons.
- Providing workshops and information for parents.
- Managing the budget.
- Maintaining links with exterior agencies involved in mathematics enrichment.
- Identifying training needs.

Conclusion

Ensuring our children leave our schools numerate is vital both for our children's future progress in school and for their ability to fulfil their ambitions and potential in adult life. We aim for our children to leave Marish Academy Trust with a firm foundation of mathematical skills and an enthusiasm for problem solving and puzzles. We strive to ensure our children go on to develop strong reasoning skills and hope that their love of maths continues throughout their lives. Mathematical education at our schools enables them to develop and apply critical thinking and logic throughout their lives.

This policy was agreed by staff and ratified by Governors in January 2025
It will be reviewed in 2027.