



MANOR INFANT SCHOOL AND NURSERY

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CHAIR OF GOVERNORS & HEADTEACHER TO COMPLETE

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MATHEMATICS POLICY

'Valued as Individuals, Inspired as Learners'

INTRODUCTION:

At Manor Infant school and nursery we see maths as an essential life skill. We are committed to ensuring that children have a positive and meaningful experience of mathematics from the Early Years through to the end of year 2.

A high quality mathematics education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. (*National Curriculum 2014*)

AIMS:

We aim to develop inquisitive and enquiring minds and encourage pupils to become self motivated, confident and capable in order to solve problems and investigations that will become an integral part of their future.

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.

The 2014 National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

TEACHING AND LEARNING:

THE EARLY YEARS

The programme of study for the Foundation Study is set out in the EYFS Framework. Mathematics in the early years provides children with opportunities for develop their skills in counting, understating and using number, calculating simple addition and subtraction problems and to describe shape, space and measure. Mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using number, calculating simple addition and subtraction problems, and to describe shapes, spaces, and measure. These are delivered through short, formal teaching as well as a range of planned structured play situations, where there is plenty of scope for exploration.

KEY STAGE ONE

Mathematics is a core subject in the National Curriculum. The programmes of study for mathematics are set out year by year for Key Stages 1 and 2 in the National Curriculum (2014).

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This involves working with numerals, words and the 4 operations, including with practical resources.

At this stage, pupils will develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching will also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value.

Pupils should also be able to read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

At Manor Infant school mathematics is taught through the programmes of study. These are:

- Number and place value
- Addition and subtraction
- Multiplication and division
- Fractions
- Measurement
- Geometry – Properties of shapes
- Geometry - Position and direction
- Statistics – **(Year 2 only)**

Our medium-term mathematics plans define what we teach, giving details of the main teaching objectives for each term. These plans are kept and monitored regularly by the maths leader and school's senior leadership team. It is the class teacher who completes the weekly plans for the teaching of mathematics. These weekly plans list the specific learning objectives and expected outcomes for each lesson, and give details of how the lessons are to be taught.

To provide adequate time for developing mathematical skills each class teacher will usually provide five mathematics lessons weekly. These may vary in length but will usually last for about 45 minutes – 1 hour in Key Stage 1.

Within these lessons there will be a balance between whole class work, group teaching and individual practice. This will involve both teacher and teaching assistant working with the whole class and/or groups and individuals to clarify misconceptions, identify progress, summarise key facts and ideas and to discuss next steps.

Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills.

We plan the activities in mathematics so that they build on the children's prior learning. While we give children of all abilities the opportunity to develop their skills, knowledge and understanding, we also plan progression, so that there is an increasing challenge for the children as they move up through the school.

In all classes, children have a wide range of mathematical abilities. Manor Infant school and nursery recognises this fact and provides suitable learning opportunities for all children by matching the challenge of the task to the ability of the child.

ASSESSMENT

Formative assessment within mathematics occurs throughout the maths lesson, enabling teachers/teaching assistants to adapt their teaching/questioning to meet the needs of all children. Teachers use their professional judgement, knowledge of progression in maths and progress over time to gather evidence over time to judge a child's attainment towards end of year objectives. Pupil's work is marked daily and will identify what they have been successful in achieving and also identify any misconceptions, or errors in calculations. This will then inform future planning. We also use a range of tests to support teachers in assessing progress in maths. These may include SATs papers or Rising Stars assessment sheets.

Statutory assessment is carried out at the end of the key stage in line with STA assessment and reporting arrangements. Regular moderation sessions are held within and across year groups, with local cluster groups and with LA consultants to ensure accuracy in assessments.

RESOURCES

Children have the opportunity to use a wide range of resources, such as number lines, counting sticks, bead strings, counting objects, number squares, Numicon, digit cards and small apparatus to support their work. ICT is used in mathematics lessons for modelling ideas, images, strategies and methods.

MONITORING AND REVIEWING

The coordination and planning of the mathematics curriculum are the responsibility of the subject leader who also:

- supports colleagues in their teaching, by keeping informed about current developments in mathematics, and by providing a strategic lead and direction for this subject;
- tracks children's progress in mathematics across the school and advises the Headteacher and Governors on action needed to raise standards.
- uses regular leadership time to review evidence of pupil's work, referring to the progress of pupils over time and compliance with Manor Infant school's effective marking policy for maths.
- analyses data from school and national assessments.