

# Manor Park

# Primary School



## Maths Policy

**Date of Last Review:** February 2020

**Agreed by Governors:** February 2020

**Shared with all Staff:** February 2020

**Frequency of Review:** 3 years

**Date of Next Review:** February 2023

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## MANOR PARK PRIMARY SCHOOL 2020



### MATHEMATICS POLICY

#### **Overview:**

- This policy should be read in conjunction with all other school policies. If you require further details regarding this policy, please refer to the maths leader or members of SLT.
- The delivery of mathematics throughout the school will be guided by the national curriculum within the context of the Manor Park Teaching and Learning policy and, where possible, alongside the Cornerstones Curriculum.
- The lead coordinator and maths team will lead the development of this subject.
- The delivery of this subject is the responsibility of each teacher and year group, as appropriate.
- All children will be given the opportunity to achieve their potential in maths.
- Subject leaders ensure that all staff are given the opportunities to develop their expertise through external and internal CPD.

#### **Introduction:**

- At Manor Park, we believe that mathematics is a vital element of the school curriculum. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them.
- Our vision is for pupils to develop the skills that enable them to become confident and competent mathematicians. We aim that children will develop their fluency, problem solving and logical reasoning in a variety of contexts, enabling them to apply their skills in other curricular areas, enabling them to think in abstract ways.

#### **Our principles in teaching Maths are that all children should:**

- Develop a positive and inquisitive attitude towards number and problem solving.
- Be motivated to become resilient learners; independently applying their mathematical skills in a variety of situations.
- Acquire fluency of number facts and mental calculation through practising on a daily basis, both inside and outside the maths lesson.
- Be challenged through their work and encouraged to discuss their mathematical reasoning.
- Explain their methods and check for reasonableness.
- Our pupils should;
  - 1) Have a sense of the size of a number and where it fits into the number system.
  - 2) Know by heart number facts such as number bonds, multiplication tables, doubles and halves
  - 3) Calculate accurately and efficiently, both mentally and using jottings, drawing on a range of calculation strategies.
  - 4) Make sense of number problems and recognise the operations needed to solve them.
  - 5) Explain their methods and reasoning using correct mathematical terms.
  - 6) Judge whether their answers are reasonable
  - 7) Suggest suitable units for measuring and make sensible estimates of measurements.
  - 8) Explain and make predictions from the numbers in graphs, diagrams, charts and tables.
  - 9) Develop spatial awareness and an understanding of the properties of 2D and 3D shapes.

#### **Teaching and Learning:**

- At Manor Park, we follow the national curriculum for mathematics, which describes what must be taught in each key stage. This ensures continuity and progression in the teaching of mathematics. In early years, the curriculum is guided by the Development Matters document, which builds towards children achieving the Early Learning Goals by the end of Reception.

- Teachers use a range of teaching styles and approaches to meet the needs of the children. Experiences are provided which encourage collaborative working, including whole class, ability, social and mixed groupings.
- Staff have high expectations of pupils and all staff are committed to supporting children to achieve their full potential.
- Maths is delivered in a meaningful way, which emphasises the importance of learning through context.
- Apparatus, models and images are used throughout lessons, in all year groups, to support children and aid conceptual understanding.
- Our aim is that maths is taught in a creative and exciting way, providing children with a hook for learning and ensuring their enthusiasm for the subject.
- Pupils should record their work in our Manor Park red Maths books (20mm squares for EYFS and 10mm squares for KS1 & KS2).
- Clearly focused learning objectives, which are derived from the national curriculum, are used throughout the school to guide mathematics teaching and learning.
- Teachers' planning ensures that the yearly teaching programme for the appropriate age group is taught. Learning objectives are drawn from the year below and/or above where appropriate, ensuring that planning meets the needs of all children in the class.
- Learning objectives are symbolised by L/O and should be underlined.
- The school ensures consistency in the formation of numbers as follows;

1 2 3 4 5 6 7 8 9 0

- Children should use one number per square, date their work (digitally) and use a margin.
- We have a strong emphasis on the development of mathematical vocabulary. Key words are displayed on working walls and teachers ensure that they model the correct use of mathematical words.

### **Organisation:**

- The Early Learning Goals have been adopted for children in EYFS. At this stage pupils experience some mathematics on a daily basis. This early introduction to mathematics will generally be undertaken orally and often in the context of a class theme, e.g. a particular story. Wherever possible, opportunities for mathematics are exploited such as when taking the register.
- In KS1 and KS2 all classes receive a daily mathematics lesson of 60/75 minutes.
- Pupils are taught in ability groups within their mixed ability class in EYFS and KS1 and within ability sets in KS2.
- Two or three times a week, mental maths will be delivered (for approximately 10-15 mins) which focus on rapid recall of number facts and calculation.

### **Inclusion:**

- As in all areas of the curriculum, mathematics should aim to promote equal opportunities by using a range of teaching styles and forms of classroom organisation, recognising that different groups of pupils may bring different skills, interests and experiences into the classroom.
- Here at Manor Park, we aim to provide for all children so that they achieve as highly as they can in mathematics, according to their individual abilities.
- We will identify which pupils or groups of pupils are under achieving and take steps to improve their attainment, including writing separate medium term plans for these groups of pupils.
- Pupil Premium (PP) children will be given targeted support to close the gap between disadvantaged children and those that are not.
- Provision for EAL, SEN, PP and More Able (MA) pupils is integral to the planning.
- MA children will be identified and suitable learning challenges provided.

### **Planning, Assessment and Reporting:**

- Medium term plans outline key objectives to be covered and include links to our wider curriculum.
- The school weekly planning proforma is used by all staff, throughout the school. Weekly plans are displayed in the classroom.
- Teachers annotate and evaluate their weekly planning to inform future planning and assessment.
- Assessments should be based upon observation, questioning, informal testing and the marking and evaluation of work.
- Children's progress is monitored on a daily basis, using Otrack, this informs future planning and assessment.
- Key vocabulary will be included in the planning of mathematics, modelled during the lesson and recorded on the working wall.
- Teachers use Otrack assessment system to monitor and assess all pupils in their class. Results are then recorded three times a year via our summative tracker. This enables teachers to monitor progress, ensuring that children are on track to achieve end of key stage expectations.
- Teachers will be responsible for reporting on pupil progress to parents at termly consultation meetings and through a written end of year report.

### **Subject Monitoring:**

- Mathematics is monitored by the subject leader, governors and SLT through data analysis, book trawls, planning scrutiny, classroom observations, pupil voice and informal drop-ins.
- The mathematics leader is actively involved in ensuring that the governing body is kept informed of and involved in progress in mathematics teaching and learning across the school.

### **Resources:**

- The school aims to provide a mathematically stimulating environment through displays that promote mathematical thinking and discussion, working walls which both model calculation strategies and celebrate pupils' achievement.
- There is a range of engaging resources, covering the different mathematical areas, in each classroom, these should be clearly labelled, with pictures, organised and accessible for all pupils.
- Apparatus and resources, such as number lines, hundred squares, place value charts, multiplication squares and Numicon should be used as regularly during whole class and individual work, to assist in developing confidence and understanding of the number system.
- Other helpful documents can be found in the maths folders on the R drive.
- Teacher use White Rose materials to develop children's reasoning and problem solving skills and these should be applied on a regular basis.

### **Intervention programme:**

- Intervention programmes are data driven, targeted and focus on gaps in learning.
- Interventions are led by teachers, teaching assistants and support staff with particular expertise and take place within normal maths lessons.
- One off, highly targeted Maths interventions, through the use of Correction Clinic, address misconceptions at the point of learning and are used to prevent children from falling behind. PP children are particularly targeted during Correction Clinic, in order to close the gap.
- Interventions are monitored by year group leaders, subject leaders and SLT.
- Additional homework and booster clubs take place in the Spring Term for Year 6 pupils.