

# Meadow Lane Infants School Policy



## Mathematics Policy

<b>Last reviewed</b>	<b>June 2014</b>
<b>Review Cycle</b>	<b>2 Years</b>

## Meadow Lane Infant School

### Mathematics Policy

#### **Introduction**

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Meadow Lane Infant School. The school's policy for mathematics is based on the 2014 National Curriculum. The policy has been drawn up as a result of staff discussion and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all the teaching staff.

#### **Aims and Objectives**

Each child should be able to think and solve problems mathematically by using the appropriate skills, concepts and knowledge. They should be provided with rich and enjoyable experiences related both to their individual needs and to the wider requirements of society.

We aim for each child to:-

1. Have a positive attitude towards mathematics.
2. Have self-confidence in their ability to deal with mathematics.
3. Be able to work systematically, co-operatively and with perseverance.
4. Be able to reason mathematically and to think logically and independently.
5. Experience a sense of achievement regardless of age or ability.
6. Understand the appropriate underlying skills, concepts and knowledge of number, measurement, shape, space and handling data. That is, to become fluent in the fundamentals of mathematics.
7. Be able to apply previously acquired concepts, skills, knowledge and understanding to new situations both in and out of school.
8. Understand and appreciate pattern and relationship in mathematics.
9. Be able to communicate ideas, experiences and questions clearly and fluently, with peers and adults, using the appropriate mathematical language.
10. Be able to explore and solve problems using the appropriate strategies, predictions and deductions with increasing sophistication.
11. Have equality of opportunity regardless of race, gender, or ability.
12. Be aware of the uses of mathematics beyond the classroom.
13. Encourage the use of mental calculations and efficient strategies to work out the answers.

For parents to:-

Understand and be actively involved in their children's mathematical learning.

#### **Teaching Mathematics**

Teaching time

1. To provide adequate time for developing mathematical skills each class teacher will usually provide four mathematics lessons weekly. These may vary in length but will usually last for about 45 minutes in Key Stage 1.
2. Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills.

#### **Class Organisation**

Within these lessons there will be a good balance between whole class work, group teaching and individual practice. This will involve work with the whole class to clarify misconceptions, identify progress, summarise key facts and ideas and know what to remember, make links to other work and to discuss next steps.

#### **Out of class work and homework**

The mathematics lessons will provide opportunities for children to practise and consolidate their skills and knowledge, to develop and extend their techniques and strategies, and to prepare for their future learning. These may be extended through out-of-class activities or homework at the discretion of the class teacher.

Although no formal maths homework is set, parents are provided with a booklet of ideas to enable them to support their children at home.

### **Links between mathematics and other subjects**

Mathematics contributes to many subjects within the primary curriculum and opportunities will be sought to draw mathematical experience out of a wide range of activities. This will allow children to begin to use and apply mathematics in real contexts.

### **School and Class Organisation**

Teachers will involve all pupils through differentiation and provide necessary support through use of resources and adult help.

### **How we work in Reception**

In Reception the classes are organised to promote social skills and the development of mathematical language and understanding. Mathematical teaching and activities (both teacher and pupil led or initiated) are available daily, both indoors and outdoors. The teaching is based on the objectives in the Early Years Foundation Stage Statutory Framework and Development Matters.

### **Resources**

Each class is resourced with a large amount of equipment, with some resources allocated to particular year groups. ICT is used in various ways to support teaching and motivate children's learning. This involves laptops and programmable toys, such as Beebot. They are used in daily mathematics lessons when it is the most efficient and effective way of meeting the lesson objectives. Software provided by the Local Authority – the Interactive Teaching Programs are used throughout Key Stage One as well as web-based games and activities provided by reputable companies and organisations.

### **Planning**

Long term and medium term planning in Key Stage 1 is structured following guidance set out in the Framework for Mathematics and the 2014 National Curriculum. Currently, the planning structure for each year is organised into five blocks, with the same structure for each year group. A block is designed to cover the equivalent of 6 weeks or 9 weeks of teaching. Each block has incorporated into it objectives from the Using and Applying Mathematics strand and from two or three of the other core strands. These encompass: counting, partitioning and calculating; handling data and measures; calculating, understanding shape and securing number fact and relationships.

From September 2014 we will begin to implement the new National Curriculum. Mathematics will then be taught in 3 or 4 programmes of study. These are:

Number – Number and place value  
Addition and subtraction  
Multiplication and division

Measurement

Geometry – Properties of shapes  
Position and direction

Statistics – **(Year 2 only)**

Short term plans are plans for each programme of study (2 or 3 weeks, depending on the pupils' needs). These may include examples from the new National Curriculum, other resources e.g. BEAM, or the teachers' own ideas. These will be adapted to meet the needs of the class. Teachers may use their own format but planning should include notes on objectives, tasks, activities and grouping for the three main parts of the lesson, success criteria, resources, vocabulary, use of support and any homework that may be set. Teachers attach relevant information from the programmes of study in the new National Curriculum to their own plans.

## Assessment

Assessment occurs at 3 connected levels: short term, medium term and long term. These assessments are used to inform teaching in a continuous cycle of planning, teaching and assessment. Teaching an area of mathematics requires careful initial and ongoing planning, informed by an assessment of children's learning. A cycle that supports this process is set out below:

### **Assess – plan – teach – practise – apply – review**

Short term assessments are an informal part of every lesson to check understanding and give the teacher information, which will help to adjust day-to-day lesson plans. Weekly mental maths lessons and informal tests are undertaken by Key Stage 1 pupils to sharpen their skills in mental calculations and word problems. Medium term assessments take place termly or as appropriate. These include half termly open ended problem solving tasks. Long term assessments take place towards the end of the school year to assess and review pupils' progress and attainment. Accurate information is then reported to parents and the children's next teachers.

## Self-Assessment

Where possible children should be involved in assessing their own work. This might include:

Traffic Lights – How did they find the work? (red/yellow/green)

W.I.L.F. (What I'm looking for)- linked to objectives/success criteria

Peer assessment- peers' thoughts are recorded periodically.

## Target Setting

Targets are based on information gathered from monitoring and evaluation. A whole school target is set based upon performance and predictions – these are shared with all teaching staff. Pupils within Key Stage 1 have target cards in the back of their books. These outline the skills and knowledge required within each pupil's sub level. They are also used to inform pupil progress and teachers' planning.

Staff reviewed: June 2014

Date ratified: June 2014

Date for review: June 2016

Signed : ..... Head teacher

..... Chair of SDC committee