

# Dunstone Primary School

## Mathematics Policy 2012

Review Date September 2014

### Introduction

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Dunstone Primary School. The school's policy for mathematics is based on the document 'Framework for teaching Mathematics from Reception to Year 6 (NNS). The policy has been drawn up as a result of staff discussion and has full agreement of the Governing Body. The implementation of this policy is the responsibility of all teaching staff.

### Teaching Mathematics

#### **Teaching Time**

To provide adequate time for developing numeracy skills each class teacher will provide a daily mathematics lesson (DML). This will vary in length depending on the Key Stage but will usually last for about 45 minutes for Key Stage 1 and 60 minutes in Key Stage 2. Foundation Stage children will follow the EYFP where they participate in activities with a mathematical focus.

Cross curricular links will also be made to mathematics within other subjects where appropriate so pupils can develop and apply their mathematical skills.

#### **Class Organisation**

From Year 1 all pupils will have a dedicated DML. Within these lessons there will be a good balance between whole class work, group teaching and individual practice. Where the children are working in mixed year classes reference will be made to the appropriate year objectives and differentiation will be planned for.

#### **A Typical Lesson**

A typical 45 to 60 minute lesson may be structured as follows:

- Oral work and mental calculation (about 5 to 10 minutes)  
This will involve whole class work to rehearse, sharpen and develop mental and oral skills.
- The main teaching activity (about 30 to 40 minutes)  
This will include both teaching input and pupil activities and a balance between whole class, grouped, paired and individual work.
- A Plenary (about 10 to 15 minutes) but this may occur at different parts of the lesson.  
This will involve working with the whole class to; sort out misconceptions, identify progress, summarise key facts and ideas, to make links to other work and to discuss the next steps.

## **Homework and Out of Class Activities**

The DML will provide children with opportunities to practise and consolidate their skills and knowledge, to develop and extend their techniques and strategies, and to prepare for their future learning. These will be extended through homework and use of ICT. These activities will be short and focused and relevant to the lesson objectives or to the class' targets. They should be referred to and valued in future lessons. Homework across the school is usually given out on Wednesdays and is to be returned by the following Monday.

Homework should be differentiated to accommodate children's abilities and only be done for a prescribed amount of time. Parental involvement is encouraged at both key stages.

Mathletics is an online resource that may be used as part of lessons and homework. Those without internet access can attend homework club.

## **Links Between Maths and Other Subjects**

Mathematics contributes towards 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. Interactive Whiteboards are now in all classrooms and in the ICT suite providing greater opportunity for links with ICT. There are also mini laptops which are able to go online and may be used within the classrooms at KS2.

## **School and Class Organisation**

### **How we cater for pupils who are more able**

Where possible more able pupils will be taught with their own class and stretched through differentiated group work and extra challenges. When working with the whole class, teachers will direct some questions towards the more able to maintain their involvement.

Very occasionally special arrangements will be made for an exceptionally gifted pupil (exceptionally gifted is defined as a child who is 2 levels above their year group), e.g. they may be taught with children from a higher age range or may follow an individualised programme with more challenging problems to tackle.

There is also a TA who works with specific groups of children.

### **How we cater for pupils with particular needs**

The DML is appropriate for almost all pupils. Teachers will involve all pupils through differentiation and intervention within the class or as a separate group or individual session with a TA. The Class Teacher, using the tracking system, pupil profiling and discussion with the leadership team, will identify these children by monitoring and tracking their Teacher Assessment results and progress in class. Children who have EAL or physical impairments should be supported appropriately and teachers should make sure their lessons involve them as fully as possible. Resources should be appropriate for these children including larger size print or multi cultural resources.

## **Pupils with special educational needs and individual education plans**

Teachers will aim to include all pupils fully in their DML. All children benefit from the emphasis on oral and mental work and participating in watching and listening to other children demonstrating and explaining their methods. However a pupil whose difficulties are severe or complex may need to be supported with an IEP in the main part of the lesson. These children will be monitored with the targets set in their IEP and teachers can also discuss with the SENCO areas to focus on.

## **How we work in the Foundation Stage**

In the Foundation Stage, children are provided with daily opportunities to consolidate and develop their mathematical language and skills. Mathematical Development is kept as practical as possible and is explored through stories, rhymes and finger games, board games, sand and water, construction on a large and small scale, imaginative play, outdoor play and playground games, cooking and shopping, two and three dimensional creative work with a range of materials and by observing numbers and patterns in the environment and daily routines.

## **Resources**

There are mathematics resources stored in cupboards in the school as well as classroom based resources. They contain a range of mathematical equipment to be used across all age groups that include games, dice and smaller resources related to time, shape, and measure.

## **Information and Communication Technology**

ICT will be used in various ways to support teaching and motivate children's learning. ICT will involve the computer, the interactive whiteboard, calculators and audio-visual aids. They will be used in DML when it is the most efficient and effective way of meeting the lesson objectives.

Calculators can be used in all year groups when appropriate. In KS2 activities and investigations can focus on their use to aid and support children's learning and development. Children are taught to use calculators properly through demonstration and practice.

Mathletics is an online resource available to the children giving them an individual account where they can use it in school and at home. Parents can sign up for a news report of their child's progress.

## **Planning**

Teachers plan based on the Key Objectives from the revised framework NNS. There are 5 blocks of planning online which ensures coverage.

Weekly plans are written and made appropriate for the class. These show the planning for the class and the objectives that are to be covered that week. Differentiation is shown on the planning. Teachers use a variety of resources but these are differentiated, edited or annotated to fit the class. Teachers can be flexible and adjust their planning to the needs of the class and groups as the block progresses.

## **Assessment**

Assessment will take place at three connected levels: short term, medium term and long term. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

Short-term assessments will be an informal part of every lesson to check children's understanding and give you information, which will help teachers be flexible and adjust day-to-day lesson plans. This includes AFL (assessment for learning), where the children are encouraged to talk about and mark their work.

Medium-term assessments will take place after each block using Rising Stars. By inputting the data on a tracker the teacher will be able to identify specific focuses for the cohort and base judgements and targets around them. Teachers will also be addressing targets using assessment sheets.

Long-term assessments will take place towards the end of each academic year through compulsory National Curriculum mathematics tests for 6 and supplemented by the optional QCA tests for the other KS2 classes. In KS1 the children will carry out the SATs tasks to back up teacher assessments. Teachers will draw upon their class record of attainment against Key Objectives and supplementary notes and knowledge about their class to produce a summative record.

Parents receive feedback about their child's progress through consultations and reports.

## **Management of Mathematics**

### **The Role of the Co-Ordinator**

- Ensure teachers are familiar with the revised Framework and help them to plan lessons
- Discuss targets with staff across the year groups using school data.
- Lead by example in the way they teach their own class
- Prepare, organise and lead inset with the support of the Headteacher
- Work cooperatively with the SENCO
- Observe colleagues from time to time with a view to identifying the support they need
- Attend INSET
- Discuss with the Headteacher and Numeracy Link Governor the progress of implementing the Strategy in the school and ways for improvement
- Maintain and develop the School Development Plan for mathematics