



Toll Bar Primary School

Mathematics Policy

January 2013

Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem-solving skills and the ability to think in abstract ways.

Mathematics is important in everyday life, many forms of employment, science and technology, medicine, the economy, the environment and development and in public decision-making. Different cultures have contributed to the development and application of mathematics. Today, the subject transcends cultural boundaries and its importance is universally recognised. Mathematics is a creative discipline. It can stimulate moments of pleasure and wonder when a pupil solves a problem for the first time, discovers a more elegant solution to that problem, or suddenly sees hidden connections.

(National Curriculum Orders 2000)

Aims

The mathematics teaching at Toll Bar Primary School is geared towards enabling each pupil to develop within their capabilities; not only the mathematics skills and understanding required for later life, but also an enthusiasm and fascination about maths itself.

We aim to increase pupil confidence in maths so they are able to express themselves and their ideas using the language of maths with assurance.

We are continually aiming to raise the standards of achievement of the pupils in Toll Bar Primary School.

THE NATIONAL CURRICULUM AND THE NATIONAL NUMERACY STRATEGY

The National Curriculum Order for Mathematics describes what must be taught in each Key Stage. Toll Bar Primary School follows the Primary Mathematics Framework, which provides detailed guidance for the implementation of the orders and ensures continuity and progression in the teaching of mathematics.¹

Every teacher in Toll Bar Primary School has access to the Framework for teaching mathematics.

In Early Years, the curriculum is guided by the Early Learning Goals, which mirror the Reception Learning Objectives in the NNS Framework.

PLANNING

Medium term planning is obtained from the Primary Mathematics Framework published by the DFES and is divided into five units (A to E). Each unit is two or three weeks long and repeated each term.

¹ The National Curriculum for Mathematics is currently under review by the coalition government.

Short term planning is carried out weekly. These plans include learning objectives for the mental/oral starter and the main activity, resources to be used, any differentiation, key vocabulary and key questions, the focus for the plenary and any reference to homework where necessary. Classroom support in the form of teaching assistants and voluntary helpers are identified on the short term planning with details of which group/child they are working with. Toll Bar Primary School uses a variety of published materials to facilitate the teaching of mathematics but recognises the need for the teaching of maths to be 'scheme assisted not scheme driven'.

Materials are regularly updated, as new and relevant items become available.

At Toll Bar Primary School we recognise the need to revisit topics regularly to revise and consolidate skills and then extend them. Every objective in the yearly teaching programme is covered at least once by the end of the year.

CROSS-CURRICULAR LINKS

Mathematics is taught mainly as a separate subject but every effort is made to link maths with other areas of the curriculum. We try and identify the mathematical possibilities across the curriculum at the planning stage. We also draw children's attention to the links between maths and other curricular work so children see that maths is not an isolated subject.

In the Early Years, these links are more evident because of a more integrated approach to the curriculum.

TEACHING METHODS AND APPROACHES

Lessons generally follow the National Numeracy Strategy format with a mental and oral starter, a main activity and a plenary session. In reception the aim is to have prepared the children by the end of the year for a daily 45-minute maths lesson.

The teaching of maths at Toll Bar Primary provides opportunities for:

- Group work
- Paired work
- Whole class teaching
- Individual work

Pupils engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem- solving
- Mathematical discussion
- Consolidation of basic skills and routines

At Toll Bar Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We use the 'Mathematical Vocabulary Book' when planning to help determine the appropriate vocabulary to use in our teaching and children are expected to use it in their verbal and written explanations.

We endeavour to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing.

ORGANISATION

In K.S.1 mathematics lessons are held on a daily basis and last for between 45 and 50 minutes. The children are taught in mixed ability classes. When children start in Reception mathematics is more flexible within the foundation stage planning with elements of the numeracy 'hour' building up to a daily lesson.

In K.S.2 the daily maths lessons last for approximately an hour. In K.S.2 children are taught in their class groups but lessons are differentiated according to their ability. There is also designated time within the curriculum for reinforcing key skills such as Times Tables and Mental Calculation strategies which is outside of the Daily Maths Lesson.

MENTAL MATHEMATICS CHALLENGE

At Toll Bar Primary School we have identified a need to improve mental mathematics calculations. As a school from Year One upwards children will take part in a ten minute practice of mental maths strategies, three times a week aimed at their own level of achievement. This will reinforce learning from the daily maths lesson as well as putting mental calculations into practical situations.

DISPLAY

We recognise the important role display has in the teaching and learning of mathematics by having maths work displayed in the school. Every class has a 'Maths Learning Wall' which is a visual aid to support children with their work. On this display are vocabulary and visual prompts, examples of children's work and challenges for children to complete.

PRESENTATION POLICY

Staff have agreed and developed a policy of oral and written presentation with regard to mathematics. The document gives structure to all staff in the expected presentation of written mathematics. It gives both staff and children a common approach and guidelines to the marking criteria and the recognised achievement of children in respect of mathematics.

ASSESSMENT AND RECORD - KEEPING

At Toll Bar Primary we continually assess our pupils and recording their progress. We see assessment as an integral part of the teaching process and endeavour to make our assessment

purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefitting the pupils and ensuring progress.

Assessing Pupil Progress (APP) is at the centre of teacher assessments to track children's progress and inform teacher planning. These are carried out continuously and are monitored by the Senior Leadership Team. APP is supported by the evidence obtained from books whilst also taking into account short-term assessments which are an informal part of every lesson and are closely matched to the teaching objectives. Pertinent comments may be recorded on the reverse of the short-term planning sheets for the teacher's immediate attention or action. This evidence contributes in part to the assessments carried out on a twice yearly basis.

More formal assessments are carried out twice yearly when pupils' attainment is measured against school and national targets. This is done by drawing on the results of APP and QCA tests at years 2, 3, 4, 5 and 6.

REPORTING

Parents have opportunities to discuss progress at two parent's evenings and an open day. Within termly curriculum newsletters parents will receive information on areas of development in mathematics for their child and are informed of their short term targets. Parents also receive an annual written report on which there is a summary of their child's effort and progress in mathematics over the year.

PARENTAL INVOLVEMENT

At Toll Bar Primary School we encourage parents to be involved by:-

- Inviting them into school twice yearly to discuss the progress of their child
- Inviting parents into school in the Summer Term to discuss the annual report
- Circulating termly newsletters informing parents of features of the mathematics curriculum to be focussed upon that term.
- Inviting parents of Year 2 and 6 pupils to a meeting in the Autumn Term with the intention of encouraging their support for the children preparing for the SATs
- Encouraging parents to help in classrooms.

HOMEWORK

Children from Year 1 upwards are set homework on a regular basis (ideally weekly) and this has the intention of reinforcing key concepts being taught in the daily maths lesson.

There is an expectation that parents will support children in completing the work set and encourage children to seek further support if necessary. It is recommended that parents use child's individual planner to communicate any difficulty or extreme ease at completing homework.

EQUAL OPPORTUNITIES

As a staff we endeavour to maintain an awareness of, and to provide for equal opportunities for all our pupils in mathematics. We aim to take into account cultural background, gender and Special Needs in our teaching attitudes.

CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

Wherever possible we aim to fully include SEN pupils in the daily mathematics lesson so that they benefit from the emphasis on oral and mental work and by listening and participating with other children in demonstrating and explaining their methods.

Where necessary teachers will, in consultation with the SENCO, draw up a target within an Individual Educational Plan for a child. If a child's needs are particularly severe they will work on an individualised programme written in consultation with the appropriate staff.

When planning, teachers will address the child's needs through simplified or modified tasks or the use of support staff.

Written: January 2013

Reviewed: