



## Thomas Gray Primary School Mathematics Policy

At Thomas Gray Primary School, we aim to provide the best possible education for each child within the context of a caring community. Mathematics is taught as part of a broad and balanced curriculum, which will enable each child to develop confidently and achieve to the best of his/her ability.

### Aims and Objectives

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

- become **fluent** in the fundamentals of mathematics, including varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **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.

### Organisation

In order to achieve the above aims, teachers in KS1 and KS2 use Lancashire medium term and weekly planning. They produce their short term planning from this. In the Early Years teachers is drawn upon from the Early Years Foundation Stage materials. Teachers also use a range of other resources including Hamilton Trust, TeeJay Mathematics, NRich and Deepening Understanding. Mathematics is taught daily and in KS1/KS2 there are three additional  $\frac{1}{2}$  hour calculation lessons.

When teaching mathematics we provide opportunities for:

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

Pupils are involved in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem solving
- Mathematical discussion
- Consolidation of basic skills and number facts
- ICT opportunities

Mathematics contributes to many subjects and it is important the children are given opportunities to apply and use Mathematics in real contexts across the curriculum.

### Inclusion

At our school we teach maths to all children, whatever their ability. Mathematics forms part of the school curriculum policy to provide a broad and balanced curriculum to all children. Through our mathematics teaching we provide learning opportunities that enable all pupils to make progress. We do this by ensuring the activities are differentiated but challenging for each child's needs. Marking and assessments help us to consider each child's attainment and progress and to plan future lessons appropriately. This is in accordance with the school marking policy.

### EYFS

We teach mathematics in our Nursery and Reception Classes. The children follow the Early Years Foundation Stage, in which there is the area of learning entitled 'Mathematics'. At this age, children are provided with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces, and measures. They are given opportunities to explore numbers, measures, patterns, shapes and space through a variety of practical activities, using both the indoor and outdoor classrooms. They are encouraged to talk about and enjoy all aspects of mathematics.

### Role of Subject Leader

The role of the subject leader is to oversee the implementation and delivery of the Mathematics curriculum and to ensure there is progression from year group to year group. They should offer expertise and guidance to other staff members. Where appropriate they will lead staff meetings on mathematics or offer advice on in-service training which will be in-line with the School Development Plan. The co-ordinator is also responsible for the requisition of resources required for the teaching of mathematics. This will be within the confines of the school budget.

### Role of the teacher

The class teacher is responsible for planning and delivering the Mathematics curriculum for the children within their class, liaising with the co-ordinator when necessary. Teachers will ensure progression in the acquisition of mathematical skills with due regard to the National Curriculum for Mathematics and our school's calculation policy which is taken from White Rose Hub (see appendix 1). They will liaise with colleagues within school, and colleagues in secondary education to ensure a smooth transition.

Teachers will continue to develop and update their skills, knowledge and understanding of mathematics through appropriate CPD training. Throughout each year, it is the class teachers' responsibility to inform parents of pupils' progress, achievements and attainments in mathematics through verbal feedback at parents' evenings and in the form of a written report at the end of the year. It is also the teacher's responsibility to carry out pupil assessments and keep record of their progress.

### Role of Support Staff

Support staff will work with small groups of children or individuals needing assistance to promote and enhance their learning as directed by the class teacher. Teaching assistants will liaise closely with the teacher to monitor the children's progress and will make notes and observation records as necessary. The support staff will have access to and follow daily plans, class intervention plans and any SEN plans, which outline the delivery of the curriculum for groups and individuals.

### Parental and Community Involvement

Parents have a vital role to play and the school seeks to work in partnership with parents. Parents are encouraged to help their child with Mathematics homework activities and encouraged to ensure their child completes mathematics activities on 'I am Learning', an online website which the school pays a subscription to. They are invited into school during the Autumn and Spring terms to discuss the progress of their child with the class teacher. In the Summer term they are given a yearly written report and invited in to speak to the class teacher. Parents are encouraged to come into school and work with their child during Maths days which are termly.

### Cross- Curricular

As well as teaching specific maths skills, the children need to understand how these relate to real life situations to make them meaningful. We offer opportunities for the children to use the numeracy skills in different contexts across the primary curriculum. We also aim to teach children about the importance of economic well-being, through a variety of different tasks and activities. Spiritual, Moral, Social and Cultural (S.M.S.C.) aspects are addressed through the teaching of maths as recorded on medium term plans. As part of Investors in Pupils, children are taught about the school budget and financial management.

### ICT/Computing

Children will use ICT programmes and websites to reinforce and develop their mathematical understanding. Programmes will allow opportunities for the children to work together to talk through specific mathematics problems and find solutions. They will also use their maths skills when working with databases and spreadsheets. Teachers will set homework activities online through 'I am Learning'.

### Classrooms and Resources

The classrooms should be organised appropriately to ensure the environment is stimulating and promotes mathematics. A working wall should be used to support mathematical concepts and reinforce teaching points. These should be changed regularly. Each classroom has maths resources. Some resources are shared between year groups. Larger mathematics resources for whole school use are kept in a storage unit in the corridor.

### Assessment and Record Keeping

Assessment is regarded as an integral part of teaching and learning and is a continuous process so that appropriate teaching strategies can be used. It is the responsibility of the class teacher to assess all pupils in their class, but peer and self-assessment are also equally important. In KS1 and KS2, Learning Ladders should be used in every child's book to set targets. Assessment grids should be completed at the front of their books and kept up to date.

In the Early Years Foundation Stage, assessments and observations of the children's skills and understanding are made. The children are assessed against the good level of development / early learning goals at the end of the Reception year. At the end of Key Stage 1, the children are assessed on their mathematics skills through teacher assessment using government frameworks, and tests. These outcomes are reported to the LEA and to parents. At the end of Key Stage 2, the children complete statutory tests for maths. These outcomes are reported to the LEA, to parents and to the secondary schools. The results from any non-statutory mathematics test taken in Year 3, 4 and 5 are used for target setting and monitoring progress.

All children have equal access to the curriculum regardless of their gender or background. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

### Homework

Homework is used to support mathematics. Often multiplication or addition bonds are set to develop the children's recall of basic facts. Other mathematical homework tasks are set to extend and reinforce the learning carried out in school and help to build their fluency in maths skills. Homework tasks will be set to meet the individual needs of the child. Children can be set 'I am Learning' homework which they complete online and the

teacher monitors this. Children can take home mathematical games from their classroom to play at home with their family.

Promoting Racial Equality

We aim for children to develop respect and concern for, and an interest in people throughout the world regardless of culture, race or religion. We hope that they will gain a greater understanding of the economic status and way of life of different cultures.

Monitoring

The implementation of this policy will be monitored by the Headteacher, co-ordinator and governing body.

Evaluation and Review

The Mathematics policy of the school is regularly evaluated and updated in line with the Curriculum Policy and the School Development Plan.

The Governing Body reviews this policy every three years. The Governors may, however, review the policy earlier than this, if the government introduces a new curriculum, or if the Governing Body receives recommendations on how the policy might be improved.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Chair of Governors

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Headteacher

Date to be reviewed: \_\_\_\_\_

