**Hornby St Margaret’s CE Primary School**

“It is the aim of the school to develop the academic potential of each child:

and to cater for the social, moral, physical and spiritual requirements of the

individual in a happy and secure Christian environment.”

**Mathematics Policy**

In September 2019, we began transitioning towards a mastery approach to the teaching and learning of mathematics. The rationale behind changing our approach to teaching mathematics lay within the NCETM/Maths Hub led Mastery Specialist Programme as well as the 2014 National Curriculum, which states:

**The expectation is that most pupils will move through the programmes of study at broadly the same pace. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.**

Our teaching for mastery is underpinned by the NCETM’s 5 Big Ideas. Opportunities for Mathematical Thinking allow children to make chains of reasoning connected with the other areas of their mathematics. A focus on Representation and Structure ensures concepts are explored using concrete, pictorial and abstract representations, the children actively look for patterns as well as specialise and generalise whilst problem solving. Coherence is achieved through the planning of small connected steps to link every question and lesson within a topic. Teachers use both procedural and conceptual Variation within their lessons and there remains an emphasis on Fluency with a relentless focus on number and times table facts.



**Aims**

1. To foster a ‘can do’ attitude in all children
2. To quickly build conceptual understanding through a range of practical experiences, models and images.
3. To develop in children an ability to think clearly and

logically with confidence.

1. To be aware of links between mathematics and other areas

of the curriculum

1. To help children enjoy mathematics through

experimenting and investigating

1. To appreciate the application of mathematics in everyday

situations

1. To understand the basic structure of mathematics through
* Number and Place Value
* Addition and Subtraction
* Multiplication and Division
* Fractions (Decimals)
* Measurement
* Geometry: properties of shapes
* Geometry: position and direction
* Statistics (data handling)

7. To develop mental calculation strategies and the rapid

recall of basic facts

8. To use and understand mathematical language

**Planning**

We use White Rose Maths schemes of work, these small step objectives are all linked to the National Curriculum 2014, from which planning objectives are taken.

Using the schemes of work from White Rose, both mixed and single aged plans are annotated to meet the needs of the children, along with an accompanying PowerPoint presentation made up of teachers own preparation and White Rose PowerPoint materials.

**Time Allocation**

We allow an hour a day for Maths, this consists of 4 a day (a focus on fluency) and a tennis approach to teaching, the children enter into a discussion around a question or start with some warm ups then into the main part of the session, often the teacher will teach or model something the children will work on this and then another variation will be added. Discussion with the children’s finding and methods is an integral part of this process.

**Oral Work**

The correct use and development of mathematical language, specific to the objectives of the lesson, is encouraged at all times. We aim to develop the use of this language giving pupils the opportunity to communicate their own way of mathematical thinking. One method teachers are encouraged to use here is STEM sentences, modelling the correct knowledge in the form of a pre-planned sentences involving a procedure or fact that the child needs to know for the lesson.

**Recording Written Work**

The form of recording will depend upon the nature of the activity and may include pictorial, written and constructed forms. The formal methods of recording for the four rules of number have been discussed and agreed upon as a staff.

The marking of any written work is set out under feedback and marking policy.

**Guidelines for Presentation and Marking**.

This written work provides evidence of work covered in Maths as well as being used for individual ongoing assessment.

**Assessment and Recording**

Short-term assessment of the children is carried out through:

1. Observation, individually and in groups
2. Questioning and discussion that identifies misunderstandings and allows them to be corrected within the lesson
3. Marking of work (carried out in line with the Marking Policy)
4. Regular times tables practice is encouraged in school and through home practice with TT Rockstars.

These assessments are recorded against the objectives and are used to aid future planning.

Termly assessment is undertaken through the use White Rose end of block and end of term assessments and analysis of these results are used to identify weaknesses and consequently to inform planning.

Annual reports, outlining a child’s progress, are sent to parents.

In line with National Curriculum 2014, end of year assessment is against an age-related best fit scale. Children will be assessed as working at an expected level, emerging level or a level which is exceeding age-related standards. Cohort assessment overview documents are kept detailing the progress of each child and are passed up to inform teaching as the cohort moves through the school.

**Monitoring**

The Headteacher and the Maths Subject Leader monitor class teaching, providing feedback to individual members of staff.

**Resources**

General resources are kept in the cupboard and stock cupboard in Class I cloakroom.

White Rose worksheets are provided on the website.

If a class teacher identifies a gap or weakness in the resources they should inform the Maths Subject Leader.

This will be addressed when funds are available.

**Information and Communication Technology**

ICT is used in various ways to support learning objectives and motivate pupils. ICT involves the use of interactive whiteboards, computers, calculators and audio-visual equipment. Calculators are introduced as a tool for calculating from Year 5 onwards.

**The Role of the Subject Leader**

* Provide guidance and support to staff
* Give help and advice as necessary
* Prepare, organise and lead Inset with the support of the Headteacher
* Maintain awareness of current developments in Mathematics by attending courses etc.
* Organising, monitoring, reviewing ordering and maintaining resources

**Special Needs**

Activities within the daily mathematics lesson are accessible to all children. Teachers’ planning extends and supports pupils through reference to the learning objective, looking to previous year’s objective if necessary. Provision for pupils with SEN in mathematics is initially the responsibility of the class teacher. Support is available from the Subject Leader and then from the SEND Co-ordinator.

Some children receive intervention support in mathematics where they work out of class in small focus groups.

**Interventions**

We are using the progression maps from NCETM for each different aspect of maths e.g. place value, addition and subtraction etc. to keep a close eye on children we have identified as being behind age related expectations. Same day interventions and more structured interventions are put in place where appropriate.

# Equal Opportunities

Good practice in Equal Opportunities is the responsibility of all staff.

All children are treated equally irrespective of gender, ethnicity, and ability in order to ensure, for each child, the greatest possible progress.

# Mathematics across the Curriculum

Opportunities are taken within other subjects for pupils to develop and apply their mathematical skills eg measuring in Science and Design Technology.

# Parental Involvement

We encourage parents to become involved in their child’s mathematical development. Homework is set from Year 1 to Year 6 and may take the form of games, puzzles and investigations as well as written work and the learning of number facts. Activities set provide extra practice or enrichment of work undertaken in class.

Two parents’ evenings are held where a child’s progress in Mathematics is discussed. The annual report gives further information for each child.

# Review of Policy

This policy was produced through discussion with staff and will be reviewed every two years.