



# Pilsley C of E Primary

## Maths Policy

### May 2020

\*\* Includes updates and links to the DFE Recovery Curriculum for Mathematics 2020

## Rationale and Ethos

At Pilsley CofE Primary School, we teach mathematics through a Mastery approach. We aim for each child to have a deep, long-term, secure and adaptable understanding of maths. Their understanding should build gradually as a child goes through school.

To develop mastery, pupils need to gain:

- fluency (rapid and accurate recall and application of facts and concepts)
- a growing confidence to reason mathematically
- the ability to apply maths to solve problems, to conjecture and to test hypotheses.

Mastery of maths should become a tool for life, and one that can be explored in different ways through each subject, making connections through application and problem solving. Maths Teaching for Mastery rejects the idea that a large proportion of people 'just can't do maths', and we support pupils in the belief that they can achieve.

## Roles and Responsibilities

The Education Act and Inspections Act 2006 place a requirement on schools to promote pupils' wellbeing (as identified in the Children's Act 2004) as well as their academic achievement. We are committed to promoting the health and wellbeing of pupils, and of the whole school community, and fully recognise the important cyclical relationship between wellbeing and learning.

## Legislation (Statutory Regulations and Guidance)

Current regulations and guidance from the Department for Education under the Children and Social Work Act 2017 state that from September 2020, all schools must deliver the [National Curriculum for Mathematics](#). At Pilsley CofE Primary School we aim to meet the needs and interests of all pupils, irrespective of age, gender, gender identity, sexuality, ethnicity, religion, disability or learning need. We also believe it is important to ensure that the Maths curriculum meets the need of every pupil under the Equality Act of 2010. Teaching will take into account the age, ability, SEND, readiness, and cultural backgrounds of all children to ensure that all can fully access Maths provision delivered to them through a Mastery approach that believes that every child can achieve.

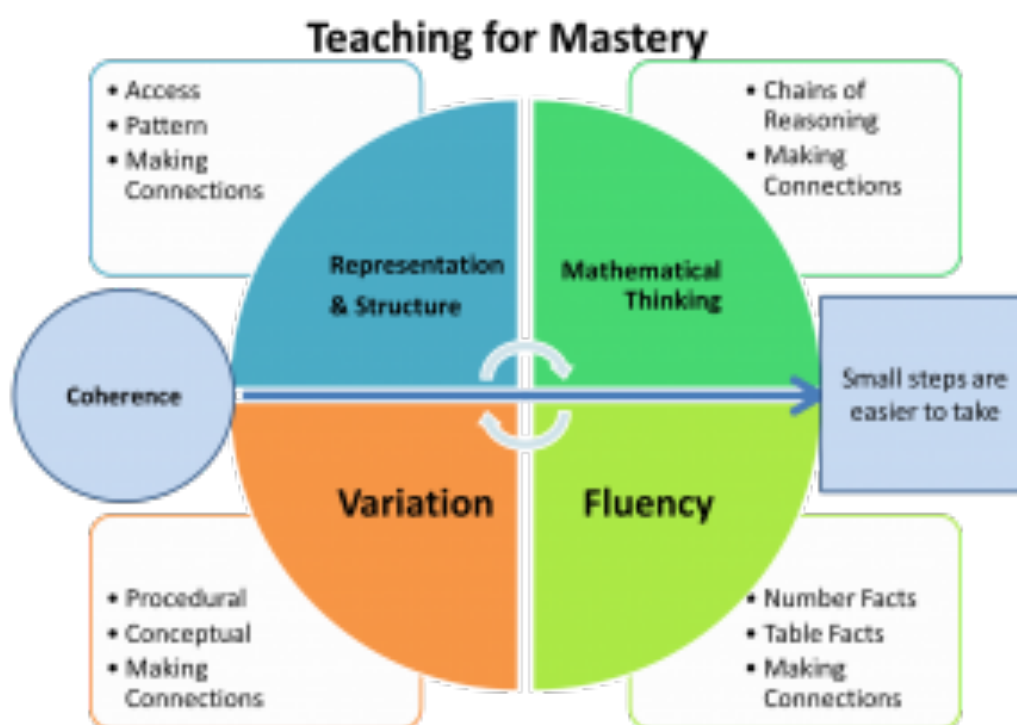
## Curriculum Design

### Intent

The intent of Teaching for Mastery in our Maths curriculum is to deliver a curriculum which aims for all children to leave our school with a deep and secure understanding of mathematics. We believe every child can achieve and that the curriculum is made accessible to all and that will maximise the outcomes for every child so that they know more, remember more and understand more. Mathematics is a creative subject that is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the power of mathematics, and a sense of enjoyment and curiosity about the subject.

### Implementation

Following the Teaching for Mastery 5 Big Ideas, each lesson intends to deliver a coherence that is based on small steps for learning and include the careful consideration of the mathematical aspects (Representation and Structure; Mathematical Thinking; Fluency and Variation) that are shown in this diagram:



Pilsley CofE Primary School currently uses the [Maths No Problem!](#) text and workbooks as its main spine, supported by the [NCETM PD Mastery Materials](#) and [White Rose Maths](#). Each of these schemes supports and implements the principles of Teaching for Mastery as stated above.

**\*\*\* In addition to this, Pilsley CofE will use the updated [DFE guidance for the Recovery Curriculum and associated NCETM classroom resources](#) to support each child to in their return to school following 2020 Covid19 Lockdown.**

- All pupils are encouraged by the belief that by working hard at mathematics they can succeed.
- Through whole-class interactive teaching, all the pupils have the opportunity to master concepts before moving onto the next part of the curriculum.
- If a pupil fails to grasp a concept or procedure, this is identified quickly and early intervention can be put in place so the pupil is able to move forward with the whole class. Early intervention comes through the support of teaching assistants working alongside the class teacher; small group work after the session or pre-teaching the key skills to a small group or individual children before the lesson.
- Lessons are designed so that as the key points of the new mathematics are taught, the difficult points and misconceptions are anticipated and addressed. The teacher models, demonstrates, sets tasks, and facilitates the exploration of the mathematics by the pupils. The pupils explore key concepts independently while continuously discussing their thoughts and understanding with their peers.
- The tasks set are based on **intelligent practice** and carefully build on skills previously taught.
- Significant time is spent exploring, proving and developing deep knowledge of the key ideas needed to underpin future learning.
- The structure and connections within mathematics are emphasised, so that the pupils develop deep learning that can be sustained.
- Key facts, such as multiplication tables and addition facts within ten are learnt and continuously practised to ensure a fluency that supports learning of new concepts.

#### Impact

- We aim for each child to:
  - become **fluent** in the fundamentals of mathematics. This includes, through varied and frequent practice, increasingly complex problems over time.
  - use practised **models and images** to support in their conceptual understanding and assist in 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
  - **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, using practiced methods and images to seek solutions.
- Maths journals are completed by the children to evidence their key learning in each topic, comparative to their starting points. This allows class teachers to assess any need for revisiting learning for individual children and ensures sticky knowledge.

- At the end of each topic the children complete an end of unit assessment.
- Assessment for Learning is embedded in practice, and during the planning stage of each lesson, predicted misconceptions are identified by the teacher, with key questions for different ability. Support is given through maths talk throughout the lesson, with an emphasis on the children discussing a problem and learning from their peers and teachers. With both staff and children continually reflecting on their learning, support and extension are given.
- Maths reflects the highest expectations in the children's behaviour.

**\*\*[The DFE Recovery curriculum guidance and NCETM supporting resources](#) identifies assessment questions and activities that will support each child and will be incorporated in the weekly planning stage. This guidance aims to identify “the most important conceptual knowledge and understanding that pupils need as they progress from year 1 to year 6. These important concepts are referred to as ready-to-progress criteria and provide a coherent, linked framework to support pupils’ mastery of the primary mathematics curriculum.”**

Monitoring of Maths is carried out by the Maths Co-ordinator, Headteacher and advisors through learning walks, evidence of recorded work and pupil discussions. Maths education is reported to parents in end of year reports. The Maths Coordinator will meet annually with the Link Governor to report and update on Maths education.

#### Teaching Responsibility and Staff Training

Maths has a designated Co-ordinator and Link Governor that will regularly monitor the subject and attend CPD through the East Midlands West Maths Hub. The Maths Coordinator will ensure there is appropriate and regular INSET for all teaching staff and TAs. When using external speakers to deliver aspects of our Maths programme we will ensure that the School Visitors and Volunteers’ Policy is adhered to.

#### Safeguarding

At Pilsley CofE Primary School we understand that by nature certain subjects may carry an increased risk of pupil disclosure, in cases where there is a safeguarding risk, school safeguarding policy in relation to Keeping Children Safe in Education 2018 will be followed. All external contributors will be informed of our safeguarding policy prior to working with the children. We also recognise there may be disclosures that aren't safeguarding issues, but opportunities to support the child. If this occurs staff may refer to or suggest appropriate local or national support services or information for pupils and/or their families. If a question raises potential safeguarding concerns, staff should respond in a way that will allow them time to seek advice from the Safeguarding Lead or Deputy Safeguarding Lead by replying with for instance: ‘That is a really interesting question and I need time to think because I want to give you a proper answer.’

### Engaging stakeholders

This policy has been produced through engagement with the East Midlands West Maths Hub, part of the NCETM; Local Authority, Governors and Teaching Staff, We communicate with parents and carers through Pilsley's school website, Pilsley's Facebook Page as well as letters to parents and discussions during parent meetings. As a school we feel it is important to keep parents informed about what we will be discussing so that they can support their child's learning and answer any questions they may have at home. Outside visitors are used to enhance the curriculum of the Maths curriculum, with the Maths Coordinator regularly hosting TRG events for the East Midlands West Maths Hub. Pilsley's School Visitors and Volunteers Policy.

### Maths Policy review date

This policy will be reviewed in May 2022 by the Maths Coordinator. This will ensure that the policy continues to meet the needs of pupils, staff and parents and that it is in line with current Department for Education advice and guidance.