





Chapel Street  
Community Primary School

## Maths Policy

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| <b>Signed by Headteacher</b>        | Ella Hughes   |  |
| <b>Signed by Chair of Governors</b> | Tim Wheeler   |  |

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| <b>Links to statutory guidance</b>                                    | <ul style="list-style-type: none"> <li>Statutory framework for the early years foundation stage: Setting the standards for learning, development and care for children from birth to five</li> <li>The National Curriculum in England – Key Stages 1 and 2</li> </ul> |
| <b>Links to non-statutory guidance</b>                                | <ul style="list-style-type: none"> <li>The Key – model policy advice</li> <li><a href="https://www.oxford-grove.bolton.sch.uk/information/curriculum/">https://www.oxford-grove.bolton.sch.uk/information/curriculum/</a> Model policy</li> </ul>                     |
| <b>Other documents / resources used in the writing of this policy</b> | <ul style="list-style-type: none"> <li>N/A</li> </ul>   |
| <b>Related policies</b>   | <ul style="list-style-type: none"> <li>Teaching and Learning Policy</li> <li>Feedback and Marking Policy</li> <li>Assessment Policy</li> <li>SEND policy</li> </ul>   |



### Vision & Missions statement

Making a difference and achieving excellence for every child.

### School values

- Growth – *We go beyond what is expected to continually improve standards and deliver ambitious outcomes.*
- Respect – *We do the right thing for our children.*
- Inclusion – *We care about people as individuals.*

You can find out more about school on our website: <https://www.chapelstreetprimary.co.uk/>

If you have any questions about the content of this policy:

- If you are a member of staff – speak with your line manager or a member of the leadership team
- If you are a parent / carer – contact the school office on 0161 224 1269
- If you are another interested party – contact the school office on 0161 224 1269

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## 1 National Curriculum Aims

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

1. Become fluent in the fundamentals of Mathematics, including through 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
2. Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
3. 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

## 2 Subject intent, implementation and impact

### 2.1 Intent

At Chapel Street, our aim is that:

- Children become confident, competent and independent mathematicians
- Children build a deep conceptual understanding of Maths and its interrelated content so that they can apply their learning in different situations
- Children’s ability to articulate, discuss and explain their thinking using appropriate mathematical vocabulary is developed across the school
- All children have a positive mind-set towards Maths
- Children develop into resilient and inquisitive learners – with skills required to become life-long mathematicians.

## 2.2 Implementation

In order to meet the needs of our children, facilitate a mastery approach and improve the consistency of our Maths mastery standard of teaching and learning, we have implemented a program of study supported by the White Rose Power Math scheme. This is a DfE approved mastery scheme using high-quality textbooks. This is also fully aligned with the White Rose scheme which supports the school's ongoing engagement with the DfE funded Maths Hubs.

Each year group follows a medium term plan where small, cumulative steps build a solid foundation of deep mathematical understanding. Formative assessment is embedded in each lesson, and appropriate revisions to planning are made by the class teacher to ensure all lessons best meet the needs of their children. Additional information is outlined in the Teaching and Learning Policy.

Our curriculum builds on the concrete, pictorial and abstract approach. By using all three of these stages, the children can explore and demonstrate their mathematical learning through a blend of collaborative and independent tasks. Together, these elements help to cement knowledge so that children truly understand what they have learnt and can apply their knowledge in a range of contexts. The overall aim of our Maths mastery curriculum is to promote a deep, long-term, secure and adaptable understanding of the subject, so that children become fluent in calculations; possess a growing confidence to reason mathematically and hone their problem-solving skills.

As the children move up the school, the lessons are structured in the following way:

- **Power Up** - Each lesson begins with a Power Up starter activity which supports fluency in key number facts and reinforce key skills such as times-tables, number bonds and working with place value.
- **Discover** - Each new concept that is learnt begins with a practical, real-life problem that arouses the children's curiosity and allows them to solve it collaboratively. Children find the math through story-telling whilst having time to explore and discuss possible strategies.
- **Share** - This is a teacher-led interactive section that follows the Discover activity and highlights the variety of methods that can be used to solve a single problem. Targeted questions are used and answers are modelled with different representations to support the children's mathematical thinking.
- **Think Together** - The children are presented with a series of problems which are represented pictorially before then being shown problems in the abstract form. Each teacher uses the I do (teacher models), We do (think together in their groups, then discuss their methods and solutions as a class), and You do (children try working out the answer independently) approach to support the children in answering each question.
- **Practice** - Using their Practice Books, children work independently whilst the teacher circulates and checks on progress.
- **Questioning** is carefully planned for and used by the teacher to help strengthen or deepen a child's understanding. Challenge activities are offered for children whom need to deepen their understanding. Likewise, separate intervention may take place during or after the lesson to address a child's misconception.
- **Reflect** - The class comes back together at the end of each lesson to complete a task that gives an opportunity for the teacher to check how deeply children understand the target concept.

Every lesson provides the opportunity for children to show mastery and achieve greater depth within each unit. The practice stage provides rich and sophisticated problems alongside more scaffolded, exploratory problems allowing children to progress at their own pace. Children are not accelerated onto the next year group's curriculum, but instead provided with opportunities for their knowledge to be broadened and deepened within their year group's expectations.

## 2.3 Impact

Through the delivery of our White Rose Power Maths mastery scheme, children talk enthusiastically about Maths and are able to use mathematical language accurately within discussions. Within each lesson, opportunities for discussion are frequent and teachers continually use AfL techniques to ascertain the pupil's level of understanding. Feedback is provided instantly within the lesson to help further learning and diminish the difference quickly and effectively.

The progress of children provides clear evidence of the impact of the teaching and learning. This is measured through formative assessment (through class discussions, questioning, activities and paired and independent tasks) and summative assessments carried out each term using Power Maths assessments and Star Maths. This is used to inform Pupil Progress meetings and allows staff to ensure that all children are achieving their full potential.

The desired impact of the Maths curriculum at Chapel Street is:

- All children will have mastered key learning outcomes relevant to their year's scheme of learning
- All children will make good or outstanding progress from the starting point of their maths learning journey
- All children will be fluent in their times tables
- All children will be able to use mathematically rich vocabulary when participating in maths lessons
- All children will be able to use key written and mental strategies to solve problems as outlined in the calculation policy

This impact will be measured by:

- Subject lead and Maths team carrying out lesson observations
- Pupil voice across the school
- Book looks
- Pupil Progress meetings to look at termly Maths data
- Impact of interventions monitored
- Analysis of data

### **3. Mathematics curriculum planning**

Through the consistent use of Power Maths across the school, all year groups are following a mastery approach to mathematics, ensuring that National Curriculum outcomes for each year group are covered. The Medium and Long term plans are provided through the Power Maths Scheme for all year groups and are followed with fidelity.

#### **3.1 Short Term Planning**

Daily planning from the scheme is adapted from the White Rose Power Maths Scheme to meet the needs of the children and the class teacher delivers and completes the learning units daily. The scheme builds upon prior knowledge, and provides opportunities to develop their skills, knowledge and understanding. There are multiple additional challenges provided for children whose knowledge is ready to be deepened in order to ensure that there is no ceiling on learning.

#### **3.2 EYFS**

At Chapel Street Community Primary School, we follow the mastery approach to maths through the use of the White Rose Power Maths scheme in EYFS. The lessons are adapted, where appropriate, for the needs of the children. We relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. We give all the children every opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics, both through play and during more formalised group learning.

### **4. Assessment**

#### **4.1 Formative Assessment**

Using assessment for learning (AfL), teachers will assess children's maths work on a lesson-by-lesson basis. AfL strategies enables the teacher to adjust their daily teaching in line with the mastery approach to meet the needs of the children, and Power Maths lesson progression and is closely aligned to the teaching objective.

AfL informs teachers where additional support will be necessary in order for a child to grasp a concept taught within that lesson's objective. Support will take the form of a same day intervention by the class teacher or a teaching

assistant in discussion with the class teacher. Interventions can also be delivered the next day by a teaching assistant if further support is required.

Within a lesson, support can be given one to one or in small, guided groups or an intervention by the class teacher or teaching assistant as judged necessary by the class teacher. Teaching for mastery requires teachers to be confident about what each child knows and where their misconceptions lie, therefore, practical, and effective assessment is vitally important.

Formative assessment within Power Maths lessons includes the **‘Think together’ part of the lesson**. Using AfL strategies, teachers will assess and addressing misconceptions as a class.

For children in EYFS, they will be assessed using the Early Years checkpoints and ‘Early Years Foundation Stage Profile’ criteria. Assessments will be on-going throughout the year in this phase. See the Early Years policy for more information.

## 4.2 Summative Assessment

Summative testing in all year groups will help to inform the class teacher of a child’s attainment.

Attainment levels consist of:

- Working towards: where a child has not attained the required level;
- Expected standard: where a child has reached the expected level;
- Greater depth: where a child has exceeded the expected level.

Summative testing can take the form of standardised test papers, Power Maths end of unit assessments, Star Maths assessments, end of key stage SATs, year 4 multiplication table checks and EYFS base line assessments.

Question level analysis is completed for year 6 and year 2 practise papers to inform planning and interventions. For a judgement of a child’s overall attainment in years 1, 3, 4 and 5, the teacher will triangulate evidence seen through summative and formative assessment alongside evidence in the books. For years 2 and 6, SATs practice papers will also be taken into account.

## 5. Times tables

By Year 4, the expectation is that all children will be able to recall times table facts to 12 x 12 in under 6 seconds. The children will be taught times tables in lessons and assessed using Times Table Rock Stars. Children are encouraged to access and practice their times tables at home as part of their home learning [see Teaching and Learning Policy for additional information].

## 6. Calculation Policy

At Chapel Street Community Primary School, we use the Power Maths Calculation Policy.

- Key Stage 1 - <https://www.pearsonschoolsandfecolleges.co.uk/asset-library/WORD/primary/Power-Maths/powermaths-ks1-calculation-policy.docx>
- Lower Key Stage 2 - <https://www.pearsonschoolsandfecolleges.co.uk/asset-library/WORD/primary/PowerMaths/power-maths-lks2-calculation-policy.docx>
- Upper Key Stage 2 - <https://www.pearsonschoolsandfecolleges.co.uk/asset-library/WORD/primary/PowerMaths/power-maths-uks2-calculation-policy.docx>

## 7. Resources

All classrooms are well equipped with high quality resources to support learning using manipulatives. As part of the concrete, pictorial and abstract mastery approach, all children are encouraged to use resources where appropriate. In Early Years, resources bags are carefully prepared and provided for use at home. Parent sessions throughout the year are held to develop parent understanding of how to use these resources to further support their child.

Additional resources are stored in the PPA room in the Maths cupboard. Resources are regularly checked and updated through annual audits.

## **8. Professional Development**

To support staff with their professional development, CPD is delivered yearly to support with the teaching of Power Maths. Chapel Street Community Primary School works closely alongside the North West One Maths Hub, and is a member of The Mathematical Association.

Teachers are also able to access CPD provided through White Rose, Power Maths and Third Space Learning. An annual review is conducted to determine any additional training required.

## **9. SEN and Equal Opportunity**

Our school will aim to provide for children with Special Educational Needs at both ends of the spectrum with a curriculum that is inclusive and which meets the needs of all children through differentiated activities. Activities during lessons will be differentiated to meet the needs of the particular children in the class and differentiations will be indicated on teacher's plans. We will ensure children from all gender, race and ability groups are included and motivated through a range of teaching styles and experiences. Through our use of a Mastery Scheme for delivering Maths, all children are able to make good progress.

## **10. Children with English as a Second Language**

We will try to ensure that children who have English as a second language have adult / peer support in class to enable them to gain the knowledge, understanding and skills set out in the Programmes of Study. International New Arrivals will be supported by an LSA where possible. Within each unit, a focus on key vocabulary will support Mathematical language acquisition, and working walls and classroom displays will be Mathematically rich. Children will also be encouraged to regularly use Mathematical vocabulary during discussions.