



Blackburn The Redeemer Church of England Primary School, Blackburn

MATHEMATICS POLICY

MISSION STATEMENT:

Believing, Loving, Caring, Sharing,
Everyone growing in the Light of Christ

Our core values

“Wisdom, Hope, Friendship, Compassion, Forgiveness, Thankfulness, rooted firmly in Agape, Love. “

Our Strategic Aims

Wisdom

To teach our children to face challenges, developing empathy, resilience and self-confidence, whilst ensuring access to a deep and rich curriculum.

Hope

To develop an awareness that hope, based on God’s love for all through Christ, is where confidence and a positive self-image, peace of mind and purpose in life can be found

Friendship

To develop friendships, welcoming supporting and loving each other, celebrating the gifts and talents of all.

Compassion

To inspire children to show compassion for others in school and for those in the local and global communities.

Forgiveness

To foster a community where all can learn to give and to receive forgiveness.

Thankfulness

To teach all members of our school community to be thankful for all that God has given us:
the physical world, our human potential and our spiritual calling.

To encourage all to be thankful by caring for all God has given us, and developing our gifts and talents to their full potential.

The Redeemer C. of E. Primary School – Maths Policy

At The Redeemer, we stress the importance of an agreed, whole school approach to the teaching of mathematics, of which staff, children, parents and governors have a clear understanding. It reflects the essential part that mathematics plays in the education of all our pupils.

Intention: This policy is the formal statement of intent for mathematics at The Redeemer:

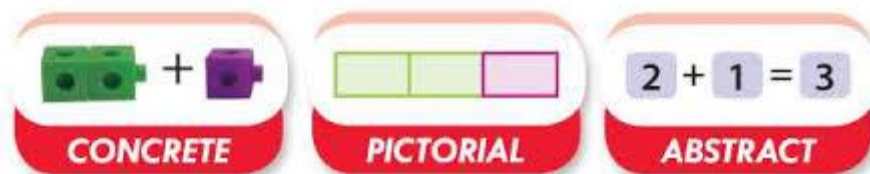
At The Redeemer, we think that mastery of anything takes time, consequently we talk about the 'journey to mastery'. It is our intention to teach all children, to develop the knowledge, understanding and skills necessary to use mathematics in their everyday lives, today, and in the future. In the words of one pupil, 'We need maths for real life situations such as: shopping, mortgages and debt.' We aim to develop our students' learning of mathematics, by providing opportunities for a conceptual understanding of this subject, where the journey is broken down into small skill steps and units of understanding. By carefully building up the planning experiences in different contexts, our pupils move from maths fluency, to being able to apply their knowledge and skills to solve new, real-life problems, whilst also supporting other areas of the curriculum. Through talk, children will be encouraged to articulate their mathematical reasoning. As teachers, we want all pupils in our care to develop a positive attitude towards mathematics, so that they believe they can do maths!

The national curriculum for mathematics aims to ensure that all pupils:

- become fluent in the fundamentals of mathematics,
- reason mathematically and articulate their reasoning using appropriate mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems efficiently and accurately. (National Curriculum 2014)

Implementation of Provision:

At The Redeemer, the maths curriculum is based on planning from New White Rose Maths Hub (WRMH). WRMH promotes kinaesthetic learning to ensure children acquire fluency of skills by introducing concepts in a practical/concrete way to progress to pictorial then abstract methods (C-P-A). Learning objectives taught and assessed in each year group, follow the progressive small steps to ensure pupils have a comprehensive understanding of maths.



Teachers plan from the New White Rose Hub new scheme of learning (medium term planning and lesson-by-lesson overviews), breaking down this learning into the mini-steps, which form the weekly plans and daily lessons. However, planning is supported by resources from Third Space Learning, the Big Maths calculation scheme (which teaches the mini-steps of how to set out addition, subtraction, multiplication and division calculations), Mastering Number Programme from the Abacus Hub (K.S.1) and for Reception Mastering Number (NCETM) which is linked to WRMH.

Teachers all follow the agreed White Rose Maths Calculation Policy and The Redeemer Mental Maths Policy.

Maths lessons provide opportunities to stay together and to work through new content as a whole group. Tasks are selected to consolidate fluency, use skills to solve questions and reasoning to solve higher-level challenge problems. Teachers use their professional judgement to determine the activities, timing and organisation in each lesson in accordance with teaching objectives, to ensure children understand each small step.

Through monitoring and formative assessment, pupils who may struggle or possibly need help to 'keep up' with parts of the curriculum are identified. Interventions take place in pre-school groups, in class lessons, or afternoon fix it sessions to ensure children are ready for the next lesson. For targeted SEND pupils a separate curriculum may be more appropriate. Teachers are able to track back in the WRMH scheme or RM Maths to begin a mathematical learning journey relevant to an individual child.

In Early Years, pupils are taught in accordance with the EYFS framework following Mastering Number (NCETM) which is linked to WRM- children receive:

- a whole class, 4 daily maths input session
- follow up guided group tasks

- related independent activities set up in continuous provision.
- One lesson each week on number formation (this may be reduced)
- KS1 pupils are taught 4 daily maths lessons of an hour and further 10-15 minute daily arithmetic lesson.
- KS2, pupils are taught 5 daily maths lessons of an hour and two further 15-20 minute arithmetic lesson.

The teaching of mathematics at The Redeemer, promotes the use of mathematical vocabulary by encouraging children to articulate their thinking, explain strategies employed and discuss mistakes in a positive manner to embed understanding and to support peer to peer learning.

Mathematics teaching in the Early Years Foundation Stage at The Redeemer

Developing a strong grounding in understanding number is essential so that all children develop the necessary building blocks to excel mathematically.

- Children should be able to count confidently
- develop a deep understanding of the numbers to 10
- develop the relationships between numbers to 10
- develop the patterns within numbers to 10.

By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.

In addition, it is important that the curriculum include rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

By the end of EYFS, it is hoped that children will be able to achieve the following early learning goals in relation to mathematics:

ELG Number: Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) including some number bonds to 10, comprising double facts.

ELG: Numerical Patterns: Children at the expected level of development will:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts - recognising when one quantity is greater than, less than or, the same as the other quantity;
- Explore and represent patterns within numbers up to 10: odds and evens, double facts how quantities can be distributed equally.

Learning and Development of mathematical skills.

Play is essential for children's development, building their confidence as they learn to explore, relate to others, set their own goals and solve problems. Children learn by taking part in play, which is guided by adults and leading their own play. Our practitioners decide the concepts they want children to learn, and the most effective ways to teach them, including the use of story books and rhymes.

Reception teachers engage children's interests, responding to each child's emerging needs and guiding their development through positive interactions coupled with secure routines for play and learning. As children grow

older within the reception year, there is a greater focus on teaching the essential skills and knowledge in the specific areas of learning. This will help to prepare children for year 1

Assessment

Children will undertake a baseline assessment on entry to EYFS. This assessment will inform teachers of a child's current level of achievement in mathematics, which will then be used to shape teaching and learning experiences for each child, reflecting that knowledge. In their interactions with children, practitioners should respond to their own day-to-day observations about children's progress and observations that parents and carers may share. Ongoing assessment throughout the year, will include knowledge of the child and at times parents' contributions, and will result in a dialogue between practitioners and year 1 teachers about each child's learning and development, to support a successful transition to key stage 1.

Assessment and Marking:

During lessons teachers 'walk the floor' to address misconceptions. From Year 2 onwards we encourage children to self-mark, discussing answers, strategies and correcting mistakes. This provides children with immediate feedback and time to reflect on their learning. 'Recall and Fix It' time can then be planned into subsequent lessons.

WRMH planning is organised into blocks of learning, at the end of which an end of block assessment is completed. This measures the short-term progress of each child.

At the end of each term, children complete a PUMA maths booklet, which assesses long-term progress and provides teacher with a raw and standardised score. The results are forwarded to the S.L.T for tracking and analysis. Children are recorded as working towards, expected or greater depth. If a child is working below their year group expectations then this is recorded accordingly.

In Early Years, pupils are assessed against the Early Years Foundation Profile and are awarded levels of Emerging, Expected and Exceeding, matched to their achievement of the assessed statements.

The Senior Leadership Team (SLT) and maths coordinators share results from the analysis of the data for achievement, across the school to identify the percentage of those working at expected, above expected and below expected. This enables SLT to identify groups of pupils who are at risk of underachieving, and require intervention strategies to support learning.

Interventions include *in class support and additional work shared with home

*pre-school, small group, maths booster lessons led by trained teaching assistants

* Numbers Count sessions 3x week for 45 minutes (targeting identified need)

Impact: Performance Indicators:

Performance Indicators, which are the criteria for success of the school's mathematics policy, are:

- Early Years Foundation Profile (Statutory Assessment)
- WRMH End of block assessments
- KS1 results (Statutory Assessment)
- KS2 results (Statutory Assessment)
- Year 4 Multiplication Tables Check
- Internal tracking data
- Pupil conferencing (Kahoot for KS2 to voice - their ability to talk about their learning of maths.)
- Book looks

Equal opportunities:

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

Teachers ensure that VAK (Visual, Auditory and Kinaesthetic) learning styles are taught and opportunities for all learners to use their preferred style are provided. Support is given for groups of identified children both in and out of class. Individual Educational Support Plans are used to address specific areas of weakness and achievable targets are set in order to help the child make their potential progress. Targets are shared with parents and our SENCO.

Parental/Carers Involvement:

At The Redeemer, we encourage parents/carers to be involved through:

- An invitation into school to participate in maths workshops, informing of methods and strategies taught in school. Copies of the presentations are saved on the Redeemer website for all parents.
- Invitation to parents' evening in the Autumn and Spring terms to discuss the progress of their child. An end of year report is sent home in the Summer term.
- **Homework:** Each half-term, each year group will send out a homework document via the school's website. This information is intended to inform parents of the learning in class.

K.S.1 - focus on a different mental maths objective and the app 1 Minute Maths from WRMH and include a hyperlink to that WRM Home learning videos

K.S.2 – 4-5 questions linked to the mental maths and number work taught in class. Also a multiplication tables focus is provided and a White Rose Maths Hub home link shared.

Resources:

Each class has a general bank of resources which can include base ten, tens frames, rekenrek, counters, clocks... and has a permanent maths 'working wall with place value headings' display appropriate to the age range of the class.

To enhance mathematical learning, children have access to tablets and iPads. KS1: Numbots / White Rose One Minute Maths App. KS2: Times Table Rockstars. (TT Rockstar celebration poster is on display in all kS2 Maths boards.)

Additional resources are available in school to support children's learning further - Every Child Counts.

Monitoring and Evaluation:

The Mathematics subject leaders and the Senior Leadership Team, monitor standards of teaching and carry out 'book scrutinies' of children's work; findings are discussed with the SLT, and shared with teaching staff as appropriate. (Maths Expectations follow up staff meeting and report.)

Lesson 'drop ins' are conducted according to the School Improvement Plan.

Maths displays are checked during 'Monitoring Walks'.

The Governing Body:

Chris Anderton, the Reverend Vicar of St. Bartholomew's Church and George Swinton, are the governors responsible for mathematics. Governors are invited to attend any maths workshops or future training days. The subject leader and the nominated governor meet annually, to share the results of the Mathematics Action Plan.

Mark Power is the SLT teacher linked to maths.

October 2023

Joanne Frankland and Clare Power (Maths Coordinators)