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CLOVER HILL PRIMARY SCHOOL

Headteacher: Mrs Ailsa Holden

Mathematics Policy

At Clover Hill Primary School, we view mathematics as 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 and a sense of enjoyment and curiosity about the subject.

Our intent is to provide children with a mathematics curriculum that will allow them to become confident individualsthrough developing their mathematical skills to their full potential. We also aim to present maths as a challenging, exciting, creative and relevant subject in order to promote a positive and attitude.

Aims

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

- 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
- 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.

Long Term Memory	Maths skills are taught, consolidated and reinforced daily. They are built upon and added to as a child develops. Daily maths quizzes and home tasks help to embed long term learning.
Real Life Relevance	We want our children to see the real-life relevance of maths. We make links to real life situations where maths would be applied e.g., fractions of a pizza, measuring for a new carpet.
Co-operative Learning	In Maths, collaboration helps children explain their reasoning and learn multiple strategies for problem-solving. Group tasks encourage pupils to verbalise their thinking, which strengthens conceptual understanding. By working together on investigations or games, children develop resilience and confidence, while peer support ensures misconceptions are addressed quickly.

We want to:

provide a motivating, challenging and comprehensive maths curriculum that is accessible to all and links the use of mathematics across a range of subjects, adding meaning to the learning of maths. Our whole school approach to the teaching and learning of maths involves the following;

- Our maths planning is based on the National Curriculum and supported by White Rose Maths (WRM) materials. This ensures a progressive and thorough curriculum in every year group. Teachers know which objectives must be taught and assessed in each year group and can follow progressive small steps to ensure pupils have a comprehensive understanding of maths. In Reception, they follow their own curriculum which is supported by BBC's Number Blocks and resources created by NCETM.

- WRM promotes kinesthetic learning to ensure children acquire fluency of skills byintroducing concepts in a practical/concrete way to progress to pictorial then abstract (C-P-A).
- Teachers deliver one curriculum for all, providing opportunities to stay together and to work through new content as a whole group (mastery approach). Teachers teach the whole class, allow pupils time to practise and bring the class back together to move on. Differentiated learning is provided through a selection of tasks to consolidate fluency. When ready, children use this knowledge and their skills to solve problems. Teachers should use their professional judgement to determine the activities, timing and organisation in each lesson in order to suit the teaching objectives and ensure children understand each smallstep.
- Throughout KS1 and KS2, pupils have daily maths lessons. In Early Years, pupils are involved in a daily whole class maths session and are encouraged to explore, develop and apply new concepts by accessing resources in the indoor and outdoor environment.
- The teaching of mathematics at Clover Hill Primary School promotes the use of mathematical vocabulary throughencouraging children to explain their thinking, strategies and mistakes during lessons to embed understanding. The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language thatpupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. Children need to learn to explain their thinking clearly and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.
- During lessons, we encourage children to self-mark. After activities, the whole class discuss answers, strategies and mistakes. This provides children with immediate feedback and time to reflect on their learning. Mistakes are discussed and correction time given aspart of a lesson. We see assessment as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring confidence and progress.

Curriculum and Teaching

Inclusion

All children have equal access to the curriculum regardless of race, social circumstance 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 Kinesthetic) learning styles are acknowledged and opportunities for all learners to use their preferred style are provided. TA support is given to groups of identified children both in and out of class. Learning Support Plans are used to address specific areas of weakness andachievable targets are set in order to help the child make progress.
We are committed to giving all our children every opportunity to achieve the highest of standards. We do this by taking account of pupils' varied life experiences and needs. We offer a broad and balanced curriculum and have highexpectations for all children. The Inclusion Policy helps to ensure that this school promotes the individuality of all ofour children, irrespective of ethnicity, attainment, age, disability, gender or background.

Our school aims to be an inclusive school. We actively seek to remove the barriers to learning and participation that can hinder or exclude pupils. We make this a reality through the attention we pay to the differentindividual and groups of children within our school to ensure minimal risk of underachievement.

Assessment

Children in Years 1-6 complete Puma Maths assessments. Year 1 summer term only. This assesses long-term progress and enables teachers to assess the children against age related expectations. These termly assessments are analysed and we can assess whether children are working at, above or below age related expectations. This information is discussed with the headteacher and information is given to the Maths lead. Approriate individual / group interventions are identified as are whole class needs.

In Early Years, pupils are assessed against the Early Learning Goals and are awarded levels of Emerging or Expected matched to their achievement of the assessed statements.

Performance Indicators

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

- Early Years Foundation Profile (Statutory Assessment)
- KS2 results (Statutory Assessment)
- Data analysis (using end of term assessments)
- Clover Hill Tracker

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Resources

- A wide range of concrete and pictorial resources are readily, and digital resources are available.
- Maths intervention (Number Stacks) is used across the school to close gaps and misconceptions.

Enrichment Opportunities

- Educational visits and outdoor learning experiences are organised to enhance pupils' understanding of mathematics in a real-world contexts.

Equal Opportunities

All pupils have an entitlement to participate fully in mathematics lessons. Teaching materials reflect diversity and provide positive images of race, gender, and disability.

Our Vision

Our approach to the teaching and learning of maths, results in a fun and engaging curriculum that embeds understanding and knowledge through hands on, practical activities. Introductions to concepts using concrete materialsand practical activities supports learning. Our policy of self-marking within lessons supports children in recognizing their strengths and areas for development. Children are encouraged to share their misconceptions and misunderstandings and become adept in using appropriate vocabulary in doing so. The inclusion of open dialogue to discuss and explain mathematical thinking also strengthens the use and understanding of mathematical language along with ensuring children can explain, justify and evidence their work. Connecting maths across the curriculum highlights how maths relates to life.

Maths Curriculum Map		
Year 1		
Autumn	**Spring**	**Summer**
• Place Value • Addition & Subtraction • Shape	• Place Value • Addition & Subtraction • Measure • Weight, length/height, volume and capacity.	• Place Value • Multiplication and division • Fractions • Time • Position and direction • Money
Year 2		
Autumn	**Spring**	**Summer**
• Place Value • Addition & Subtraction • Shape	• Money • Multiplication and Division • Length and Height • Fractions • Time	• Mass, Capacity and Temperature • Statistics • Position & Direction • Recap & Revisit • End of Key Stage 1 Assessments • Problem Solving
Year 3		
Autumn	**Spring**	**Summer**
• Place Value • Addition and subtraction • Multiplication and division	• Multiplication and division • Length and perimeter • Fractions • Mass and capacity	• Fractions • Money • Time • Angles and shape • Statistics
Year 4		
Autumn	**Spring**	**Summer**
• Place Value • Addition & Subtraction • Measurement – Area • Multiplication & Division	• Multiplication & Division • Place Value • Addition & Subtraction • Measurement –Length and perimeter.	• Multiplication & Division • Decimals • Measurement – Time & Money • Geometry – position & direction - co-ordinates • Statistics
Year 5		
Autumn	**Spring**	**Summer**
• Place Value • Addition and Subtraction • Multiplication and Division • Position and Direction	• Fractions • Multiplication and Division • Fractions • Decimals and Percentages • Perimeter and Area • Statistics	• Shape • Decimals • Converting Units • Volume

Year 6		
Autumn	**Spring**	**Summer**
• Place Value • 4 operations • Fractions • Decimals • Percentages	• Measures • Ratio • Algebra • Area • Perimeter • Volume	• Statistics • Shape • Topic-based learning