Maths at Haworth Primary School

Intent

At Haworth Primary we believe that students deserve a well-structured and ambitious maths curriculum, rich in skills and knowledge, which ignites curiosity and prepares them well for everyday life and future employment. Regardless of ability, we want every child in Haworth Primary School to appreciate the magic of mathematics and feel empowered to succeed in maths.

Our Maths Curriculum is carefully thought out and progressive. We aim for all Haworth children to become fluent in the fundamentals of maths, through embedding their arithmetic skills and by developing their ability to be able reason and problem-solve, so that they can apply the universal language of maths to their understanding in the wider world.

Implementation

- To ensure National Curriculum coverage, Haworth's maths curriculum is underpinned by the 'White Rose Maths Hub' scheme of learning so that there is continuity and progression of mathematical concepts, skills and knowledge.
- Teachers adapt and tailor plans and resources to suit the needs of all children so that there is challenge for every child in every lesson.
- Regular formative and summative assessment is used to gauge and explore children's understanding of a topic, giving ongoing feedback to the teachers and pupils on progress and where adaptations can be made.
- All teachers maintain a close communication channel with the Maths Leaders with regards to their current White Rose unit and which 'small step' they are on. This allows Maths Leaders to stay up to date and support any year groups in ensuring the curriculum is fully covered.
- Daily maths lessons include:
    - daily arithmetic starters
    - building on knowledge, by recapping what children know and then introducing new concepts in a progressive way
    - procedural fluency (the ability to quickly recall facts and use formal methods to answer questions)
    - conceptual fluency (why mathematics works and where it is found in the real world)
    - regular and sophisticated reasoning and problem solving – in most lessons
    - the use of concrete manipulatives and pictorial representations (for all pupils), when appropriate, to support conceptual understanding

EYFS

At Haworth, we understand that developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.

In both Nursery and Reception, children count every day in a real life context. Pre-number work is covered in Nursery through nursery rhymes and stories, social counting and using numbers in play. Alongside developing their understanding of how to count, they can begin to develop subitising skills and some number recognition. Nursery children are taught how to play dice games.

Children in Reception then move on to develop a deep understanding of the numbers to 10, and beyond 10 when they are ready. Children have a daily maths input on the carpet teaching new skills. In Reception, we use the White Rose Maths scheme to ensure progression and link with learning in Key Stage 1 and 2. Children are provided with regular opportunities to revisit key mathematical concepts throughout EYFS to embed learning. By providing frequent and varied opportunities to build and apply this understanding, such as using manipulatives, children develop a secure base of knowledge and vocabulary from which mastery of mathematics is built.

We provide rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics, including shape, space and measures. We believe that 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 to be afraid of making mistakes.

Within each EYFS classroom there is an explicit Maths area, which children can access independently during continuous provision. Resources within this area are open-ended and are frequently enhanced to reflect what pupils have been learning in the structured maths inputs. It is here where pupils can independently practise and apply the concepts which they have learnt during the structured maths lessons. This area also consists of resources to support previous learning, allowing pupils to revisit and recap previously taught mathematical concepts. Maths is not however limited to this area of the classroom and staff encourage pupils to explore concepts, experiment and investigate to develop their mathematical understanding through play in a range of areas.

SEN

At Haworth, we believe that all children are mathematicians. Throughout school, maths lessons/teaching are expertly adapted to ensure that learning is accessible to all children at Haworth Primary. This includes using concrete resources, pictorial representations and additional scaffolds as required. Our staff have very strong, positive relationships with our children, knowing them on an individual basis, and are therefore able to design and implement bespoke adaptations and point of need interventions when required.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	- Developing awareness of number – number rhymes. - Finger numbers - Subitising 1 and 2 (dice patterns and irregular patterns)		- Subitising to 6 (dice patterns + irregular patterns - 1:1 counting and correspondence - Comparing groups		- Numerals to 5 - Matching number and quantity - Subitising to 6 (dice patterns + irregular patterns)	
	- Sorting (by colour, size, shape) - Matching games - Positional language - Shapes in the environment		- 2d shapes - capacity - matching games		- Extending repeating pattern - Height and length - Sequencing	
Reception	- Match, sort and compare - Talk about measure and patterns - It's me 1, 2, 3 - Circles and triangles - 1, 2, 3, 4, 5 - Shapes with 4 sides		- Alive in 5 - Mass and capacity - Growing 6, 7, 8 - Length, height and time - Building 9 and 10 - Explore 3-D shapes		- To 20 and beyond - How many now? - Manipulate, compose and decompose - Sharing and grouping - Visualise, build and map - Make connections	
Year 1	- Place Value (within 10) - Addition and subtraction (within 10) - Shape		- Place Value (within 20) - Addition and subtraction (within 20) - Place Value (within 50) - Length and height - Mass and volume		- Multiplication and division - Fractions - Geometry - Place Value (within 100) - Measurement - Time	
Year 2	- Place Value - Addition and subtraction - Addition and subtraction - Shape		- Money - Multiplication and division - Length and height - Mass, capacity and temperature		- Fractions - Time - Statistics - Position and direction	
Year 3	- Place Value - Addition and subtraction - Multiplication and division		- Multiplication and division - Length and perimeter - Fractions		- Fractions - Money - Time	

		- Mass and capacity	- Shape - Statistics
Year 4	- Place value - Addition and subtraction - Measurement (area) - Multiplication and division	- Multiplication and division - Length and perimeter - Fractions - Decimals	- Decimals - Money - Time - Shape - Statistics - Position and direction
Year 5	- Place Value - Addition and subtraction - Multiplication and division - Fractions	- Multiplication and division - Fractions - Decimals and percentages - Perimeter and area - Statistics	- Shape - Position and direction - Decimals - Negative numbers - Converting units - Volume
Year 6	- Place value - Addition, subtraction, multiplication and division - Fractions	- Decimals - Fractions, decimals and percentages - Ratio - Algebra - Area, perimeter and volume - Statistics	- Shape - Position and direction - Consolidation and problem solving