

Curriculum Intent

When teaching mathematics at Broom Barns, we intend to provide a curriculum, which caters for the needs of all children and sets them up with the necessary skills and knowledge in order for them to become successful mathematicians. We incorporate sustained levels of challenge through varied and high quality activities with a focus on enjoyment, fluency, reasoning and problem solving.

Mastery

Pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources is used and pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience, adaptability and acceptance that struggle is often a necessary step in learning. Our curriculum allows children to make better sense of the world around them relating the pattern between mathematics and everyday life.

Underpinned by:

High Expectations and Mastery	Modeling	A Vocabulary Rich Environment	Pattern and Connection Recognition
All children are expected to succeed and make progress from their starting points.	Teachers teach the skills needed to succeed in mathematics providing examples of good practice and having high expectations.	We intend to create a vocabulary rich environment, where talk for maths is a key learning tool for all pupils. Pre teaching key vocabulary is a driver for pupil understanding and develops the confidence of pupils to explain mathematically.	All children will have opportunities to identify patterns or connections in their maths; they can use this to predict and reason and to develop their own patterns or links in maths and other subjects.
The Teaching of Fluency	The Teaching of Reasoning	The Teaching of Problem Solving	Mastery
We intend for all pupils to 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.	We intend for all pupils to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.	We intend for all pupils to 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.	All children secure long-term, deep and adaptable understanding of maths, which they can apply in different contexts.

Curriculum Implementation

<p>White Rose Every class from Rec to Y6 follows the White Rose scheme of learning which is based on the National Curriculum. Lessons may be personalised to address the individual needs and requirements for a class but coverage is maintained. Where possible, real contexts are used. Maths fluency is regarded as a precondition of success across the subject. We place an emphasis on developing high expectations and independent learners.</p>	<p>Early Morning Work & Consolidation/Pre-Teaching We have Start of Day Activities (EMW) in each class whereby children are set a maths task to ensure retrieval of previously learned content is frequent and regular. These may take many forms, for example: arithmetic, specific times tables or several questions about a mixture of maths topics. While the class are solving the questions, the staff are able to support children with consolidation or pre-teaching ensuring they are confident with skills required for the upcoming session.</p>	<p>Assessment Through our teaching, we continuously monitor pupils' progress against expected attainment for their age, making formative assessment notes where appropriate and using these to inform our teaching. Summative assessments are completed at the end of each term; their results form discussions in termly Pupil Progress Meetings and update our summative school tracker. Maths interventions are provided for children who fall behind.</p>
<p>Online Maths Tools In order to advance individual children's maths skills in school and at home, we utilise Times Tables Rock Stars for multiplication practise, application and consolidation.</p>	<p>Concrete Pictorial Abstract (CPA) We implement our approach through high quality teaching delivering appropriately challenging work for all individuals. To support us, we have a range of mathematical resources in classrooms including Numicon, Base10 and counters (concrete equipment). When children have grasped a concept using concrete equipment, images and diagrams are used (pictorial) prior to moving to abstract questions. Abstract maths relies on the children understanding a concept thoroughly, being able to use their knowledge, and understanding to answer and solve maths without equipment or images.</p>	<p>Continuing Professional Development (CPD) We continuously strive to improve our practice and frequently share ideas and strategies that have been particularly effective. We take part in training opportunities.</p>
<p>Cross Curricular Where possible, meaningful cross-curricular links are made.</p>	<p>Whole school events We celebrate National Maths Day and have whole school maths problem solving days. There is a weekly celebration of maths achievement and success in assembly.</p>	<p>Feedback and Marking In the minute feedback and purposeful marking is in place.</p>

Foundation Stage

Follow the EYFS framework where the emphasis is on the children having opportunities to develop and improve their skills in, counting, addition, subtraction, shape and measure. Children have daily maths teaching. Reception follow White Rose Maths.

Key stage 1

The emphasis is on pupils developing confidence and mental fluency with whole number counting and place value (using concrete apparatus and pictorial representation.) By the end of year 2, children should know the number bonds to 20 and be accurate in using place value.

Lower key stage 2

The focus is to ensure children become increasingly fluent with, whole numbers, the four operations, number facts, fractions and place value. They also develop efficient written and mental methods; solve a range of word problems and develop maths reasoning. By the end of year 4, children should have memorized the tables up to 12×12 .

Upper key stage 2

The main focus is to extend the children's understanding of the number system and place value to larger integers, make connections between multiplication and division, fractions, decimals, percentages and ratio, be fluent in the 4 operations, solve a wider range of word problems with increasingly complexity, long multiplication and division, use efficient methods and introduce algebra.

Daily fluency starters take place in all classes from 1-6.

Curriculum Impact

Pupil Voice	Evidence in Knowledge	Evidence in skills	Outcomes
Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes.	Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential. Mathematical concepts or skills are mastered when a child can show it in multiple ways, using the mathematical language to	Pupils use acquired vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems. The flexibility and fluidity to move between different contexts and representations of maths.	At the end of each year, we expect the children to have achieved Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge receive

<p>Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.</p>	<p>explain their ideas, and can independently apply the concept to new problems in unfamiliar situations. Children demonstrate a quick recall of facts and procedures. This includes the recollection of the times table.</p>	<p>Children show a high level of pride in the presentation and understanding of the work.</p> <p>The chance to develop the ability to recognise relationships and make connections in maths lessons.</p> <p>Teachers plan a range of opportunities to use maths inside and outside school.</p>	<p>appropriate support and intervention.</p> <p><u>Mastery</u></p> <p>All children secure long-term, deep and adaptable understanding of maths, which they can apply in different contexts.</p>
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