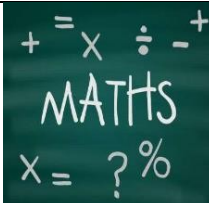


Mathematics at Grasvenor Avenue Infant School

'Good mathematics is not about how many answers you know... it's about how you behave when you don't know.'



Maths

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is 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, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

National curriculum 2014

During Foundation Stage:

Mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces, and measure

Numbers: children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number.

Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.

Shape, space and measures: children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

During Key Stage 1

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the 4 operations, including with practical resources.

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching will involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.

Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

<p>Planning</p> <ul style="list-style-type: none"> • The school’s curriculum maps show the units/blocks to be covered each term. • There is a medium-term plan for each unit/block of work • Plans are annotated and adapted to show how less able and those new to English will access the content. • More able children are planned for so that they can deepen their mathematical knowledge and reasoning skills. • Year 1 and Year 2 follow the White Rose Math planning. • Early Years follow the Development Matters and Early Learning Goals to guide our long, medium and short term planning. They also follow the White Rose structure. 	<p>Teaching</p> <ul style="list-style-type: none"> • Whole class mathematics is taught from Foundation stage to Year 2. • Flexible groupings are used during lessons e.g. ability and mixed ability groups, paired work, guided and independent work and whole class work. • Children will be expected to complete tasks/ activities that range from fluency to reasoning. • We want children to develop their conceptual understanding, be fluent, reason and be able to solve routine and non-routine problems. • We have a range of manipulatives which enable all children to explore and explain the abstract nature of maths. • We also encourage drawings, including the use of bar models. This concrete, pictorial and abstract approach is proven to be very effective way of supporting mastery and helping children to know and understand more and remembering more in the long term. • Children are given the opportunity to learn mathematics practically to help develop mathematical conceptual understanding. Opportunities are given in lessons to learning and developing of new vocabulary and definitions. • A range of manipulatives and resources are used to enhance learning including Numicon, dienes, place value counters and 2D & 3D shapes. • Relevant vocabulary is explicitly taught, evident in the classroom and used in discussion and reasoning. • Children receive 5 maths lesson every week. Pupils have a squared maths book to record work. • Children in reception receive 5 maths lessons a week (including teacher lead focus groups and other planned maths related activities within the learning environment).
<p>Marking and feedback</p> <p>Work should be marked according to the school marking policy by using</p> <ul style="list-style-type: none"> • Peer and self-assessment • Oral feedback • Written feedback 	<p>Resourcing and display</p> <p>Working wall:</p> <ul style="list-style-type: none"> • Display is kept up to date and relevant to the unit/ block that is being taught. Displays include key vocabulary, methods and concepts that are being taught in Maths. <p>Resources:</p> <ul style="list-style-type: none"> • Key resources for number are stored in classes. Other resources relating to measures, shape etc. are stored in the sharing cupboard. <p>Monitoring</p> <p>Monitoring is undertaken by subject leader and SLT during the school year. This will include</p> <ul style="list-style-type: none"> • Learning visits during Maths lessons • Book looks. <p>Discussions with pupils about what they have learnt.</p>
<p>Assessment</p> <p>Formative:</p> <ul style="list-style-type: none"> • AFL is used within each lesson to establish next steps for pupils. • End of term tests relating to blocks taught. (White Rose) • SATs testing in Year 2. • Reception baseline test at the start of the year. <p>EYFS:</p> <ul style="list-style-type: none"> • Teachers make observations regarding the pupils’ development in this subject. 	