

Big Picture for Curriculum Subjects

(to be used alongside subject specific curriculum overview/progression of skills)

Maths

What are the Key Concepts and Ideas that we want children to learn about in this subject through their education?

1. Develop a secure understanding of the four rules of number so children can use and apply their knowledge, across the mathematics curriculum, with increased accuracy.
2. Recall multiplication and corresponding division facts with automaticity.
3. Through a mastery teaching and learning approach, children are able to develop fluency, problem solving and reasoning skills in all areas of mathematics.
4. Build upon prior mathematical knowledge and understanding, returning to previously taught concepts, to allow children to retain and recall mathematical understanding.
5. Use and apply mathematical knowledge and skills across the curriculum to enhance their understanding.

How do these concepts progress throughout the school?

EYFS	KS1	KS2
<ul style="list-style-type: none"> • Through our high quality EYFS provision, the children will be provided with the opportunity to continuously explore number, shape, length, weight and capacity objectives, with a main emphasise being on number. The children will have a deep understanding of numbers to 10 through both discrete maths lessons and enhanced indoor and outdoor continuous provision on number. (1, 3) • By the end of Reception, the children will be able to be able to automatically recall number bonds to 10. (1) • The EYFS maths curriculum will provide the children with various ways to build up a love and passion of maths – being able to make connections to the real world – using and 	<ul style="list-style-type: none"> • The principal focus of our mathematics teaching in Key Stage One is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This will involve working with numerals, words and the four operations, including with practical resources. As such, we provide additional slots within the timetable to allow for retrieval practice of these objectives to ensure the children are fluent and demonstrate automaticity within these areas of the curriculum. (1) • At this stage, pupils also develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. We also involve 	<ul style="list-style-type: none"> • The principal focus of our mathematics teaching in lower Key Stage Two is to ensure that pupils become increasingly fluent with whole numbers and the 4 operations, including number facts and the concept of place value. This will ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers. As such, we continue to provide additional slots within the timetable to allow for retrieval and reasoning practice of these objectives to ensure the children are fluent and demonstrate automaticity within these areas of the curriculum across KS2. (1) • At this stage, pupils will develop their ability to solve a

<p>applying their understanding. (5)</p> <ul style="list-style-type: none"> The maths learning delivered will allow for exploration through a practical and hands on approach and children will revisit previously taught objectives in a variety of different approaches. (1, 4) 	<p>using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. (3)</p> <ul style="list-style-type: none"> In line with the National Curriculum, by the end of Year Two, pupils will 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. We do however; aim to ensure that the children are fluent in their number bonds to 20 by the end of Year One and push to ensure that they know their number bonds to 100 by the end of Year Two. (1, 3, 4) Pupils will read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at Key Stage One. In accordance with KS mathematical knowledge, children will be given the opportunities to use and apply their knowledge and skills across the curriculum to a variety of subjects. (5) 	<p>range of problems, including with simple fractions and decimal place value. Our teaching will also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It will ensure that they can use measuring instruments with accuracy and make connections between measure and number. As such, we again provide time during each maths lesson for the children to recall, use, and apply wider maths concepts to a problem solving/reasoning context, ensuring they are able to revisit previously taught concepts. (3, 4, 5)</p> <ul style="list-style-type: none"> By the end of Year 4, our pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work. From Year 1 to 6 this is a focus for us; the children receive two allocated times tables slots per week to prioritise this key area of the curriculum. (1, 2) Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word-reading knowledge and their knowledge of spelling. In accordance with KS mathematical knowledge, children will be given the opportunities to use and apply their knowledge and skills across the curriculum to a variety of subjects. (5) The principal focus of our mathematics teaching in upper Key Stage Two is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This
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		<p>should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio. (1)</p> <ul style="list-style-type: none">• At this stage, our pupils will develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them. (3, 4, 5)• By the end of Year 6, pupils will be fluent in written methods for all 4 operations, including long multiplication and division, and in working with fractions, decimals and percentages. Basic skills slots across KS2 support this in being a priority for us as a school – to ensure that every child is fluent in number and displays automaticity within this area of the mathematics curriculum. (1, 2, 3 4)• Pupils should read, spell and pronounce mathematical vocabulary correctly. In accordance with KS mathematical knowledge, children will be given the opportunities to use and apply their knowledge and skills across the curriculum to a variety of subjects. (5)
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