

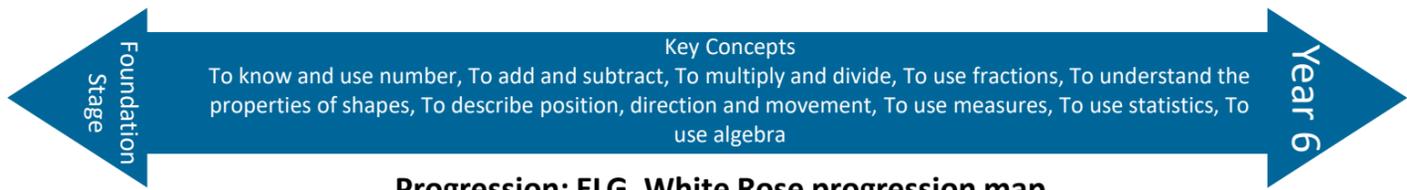
Our Maths Pathway -place value/ addition and subtractions/ multiplication and division



Maths is the study of number, fractions, shape and measure and understanding how these are applied in the real world.

As mathematicians we learn to:

- Have an understanding of the important concepts and an ability to make connections within mathematics.
- Be fluent with knowledge and recall of number facts and the number system.
- Show initiative in solving problems in a wide range of contexts, including the new or unusual.
- Think independently and to persevere when faced with challenges, showing a confidence of success.
- Reason, generalise and make sense of solutions.

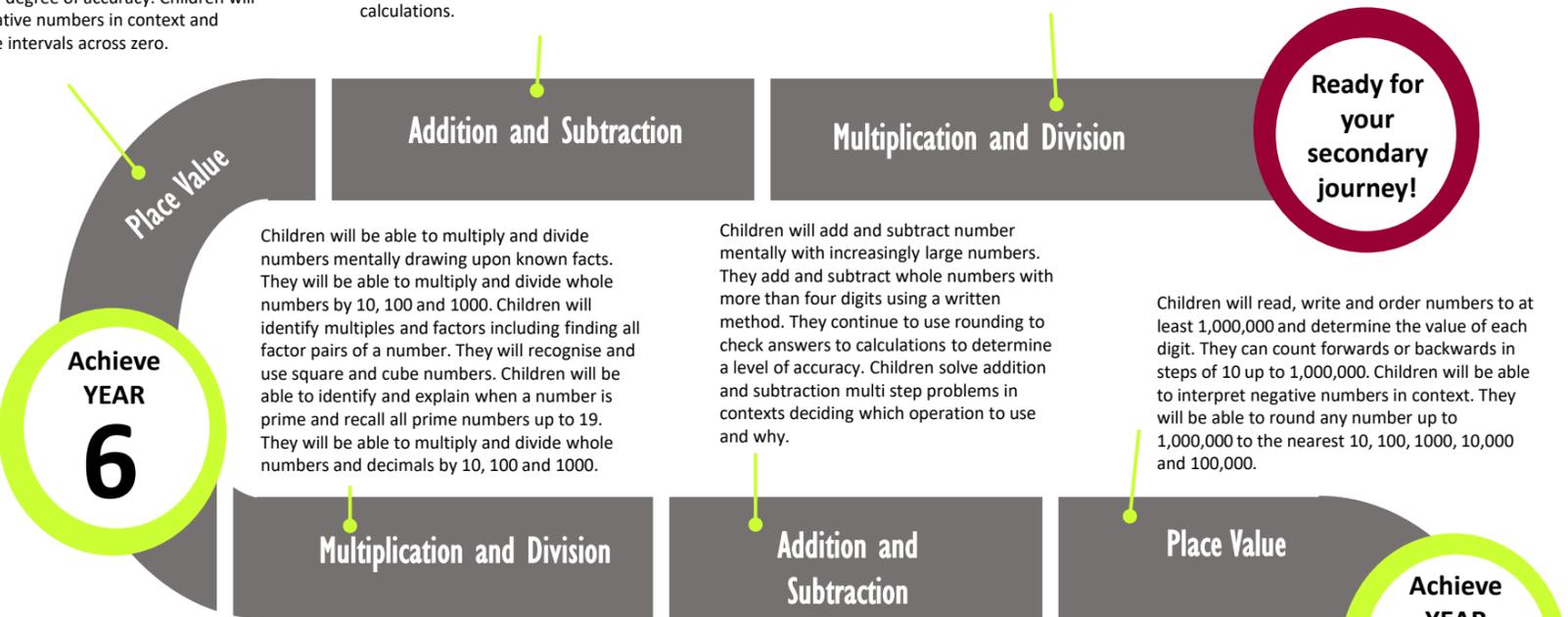


Progression: ELG, White Rose progression map

Children will be able to read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. They will round any whole number to a required degree of accuracy. Children will use negative numbers in context and calculate intervals across zero.

Children will continue to solve addition and subtraction multi step problems in contexts deciding which operation to use. They will solve problems involving addition, subtraction, multiplication and division. They continue to use estimation to check answers to calculations.

They will multiply numbers up to 4 digits by a 2-digit number using a formal written method of long multiplication. They will divide 4-digit numbers by 2-digit numbers using long and short division. Children will solve problems involving addition, subtraction, multiplication and division. They will identify common factors and multiples and prime numbers.

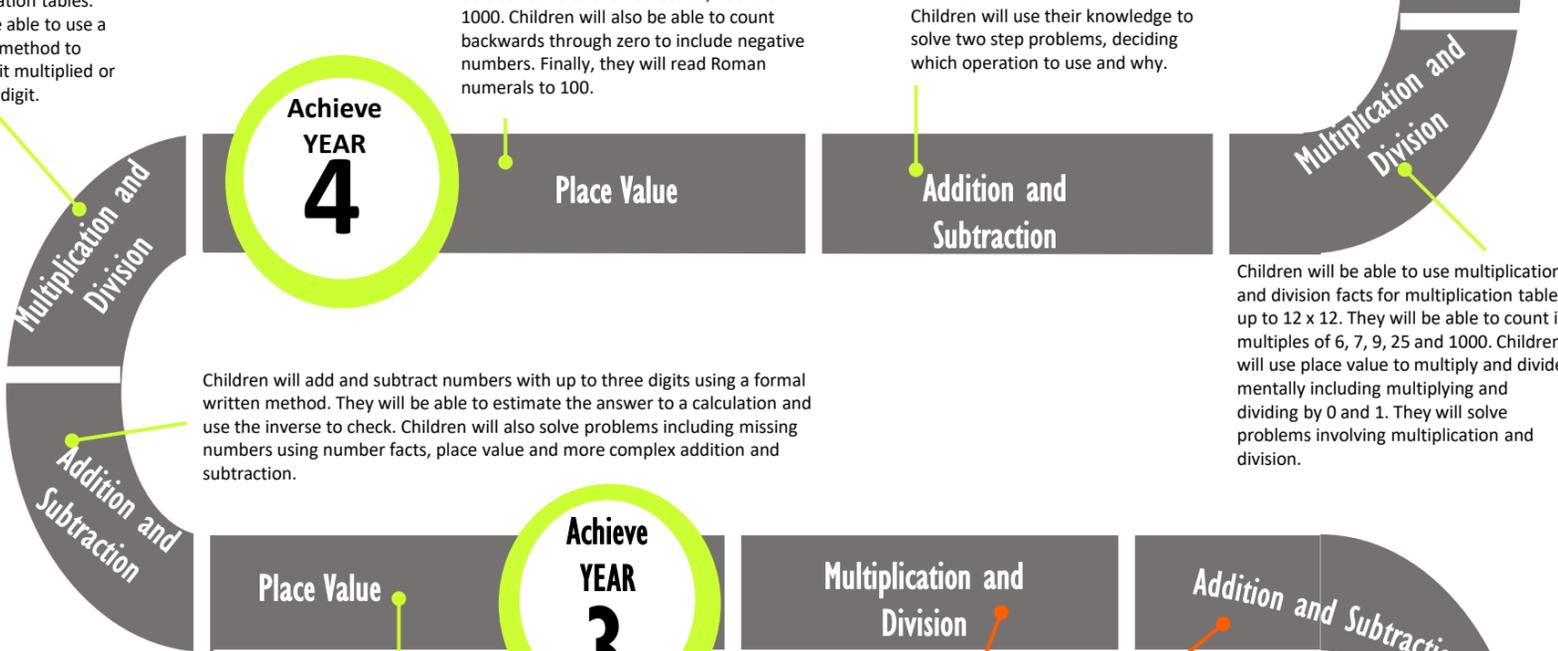


Children will be taught to count in multiples of 4, 8, 50 and 100. They will be able to recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Children will be able to use a formal written method to solve a two-digit multiplied or divided by one digit.



Children will be able to count in multiples of 6, 7, 9, 25 and 1000. They will learn to find 1000 more or less than a given number. Children will know the place value of each digit in a four-digit number. They will be able to round to the nearest 10, 100 and 1000. Children will also be able to count backwards through zero to include negative numbers. Finally, they will read Roman numerals to 100.

Children will be able to add and subtract numbers with up to 4 digits using an appropriate written method. They will use estimation and inverse to check answers to a calculation. Children will use their knowledge to solve two step problems, deciding which operation to use and why.



Children will add and subtract numbers with up to three digits using a formal written method. They will be able to estimate the answer to a calculation and use the inverse to check. Children will also solve problems including missing numbers using number facts, place value and more complex addition and subtraction.

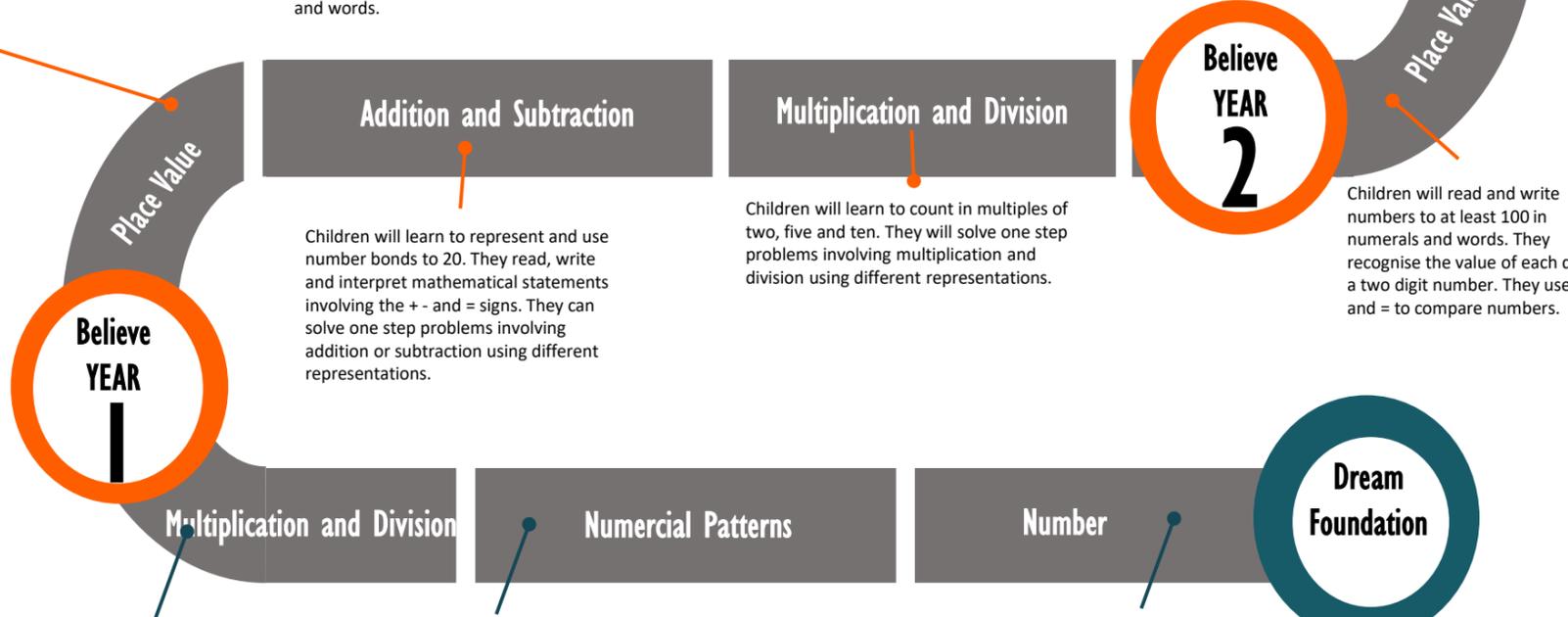
Children will be able to use multiplication and division facts for multiplication tables up to 12 x 12. They will be able to count in multiples of 6, 7, 9, 25 and 1000. Children will use place value to multiply and divide mentally including multiplying and dividing by 0 and 1. They will solve problems involving multiplication and division.

Children count to 100 and can read and write numbers to 100. They use language like more than and less than to compare amounts.

Children will identify, represent and estimate numbers using different representations. They will be able to find 10 or 100 more or less than a given number. Children will know the place value of each digit in a three digit number. They will also be able to read and write numbers up to 1000 in numerals and words.

Building on Year 1, children will recall and use multiplication facts for the 2, 5 and 10 times table. They will be able to use the symbols \times and \div in simple calculations.

Children will recall and use addition and subtraction facts to 20 fluently. They will add and subtract numbers using concrete objects before starting to use basic column addition and subtraction. They will solve problems using addition and subtraction and will be able to find use the inverse to check calculations.



Children will learn to represent and use number bonds to 20. They read, write and interpret mathematical statements involving the + - and = signs. They can solve one step problems involving addition or subtraction using different representations.

Children will learn to count in multiples of two, five and ten. They will solve one step problems involving multiplication and division using different representations.

Children will read and write numbers to at least 100 in numerals and words. They recognise the value of each digit in a two digit number. They use $<$ $>$ and $=$ to compare numbers.

Children build on their earlier work on matching to find and make pairs. They begin to understand that a pair is two. They will learn that double means 'twice as many'. Children double using real objects. They will look at sharing items equally.

Children will explore the composition of numbers to 10. They will be able to combine two groups. They can represent patterns within numbers including evens and odds, double facts and how to share amounts equally.

Children will learn about the number system They will explore different representations and ordering the numbers correctly to 10. They learn to count to 20 and beyond through understanding of the consecutive number system.

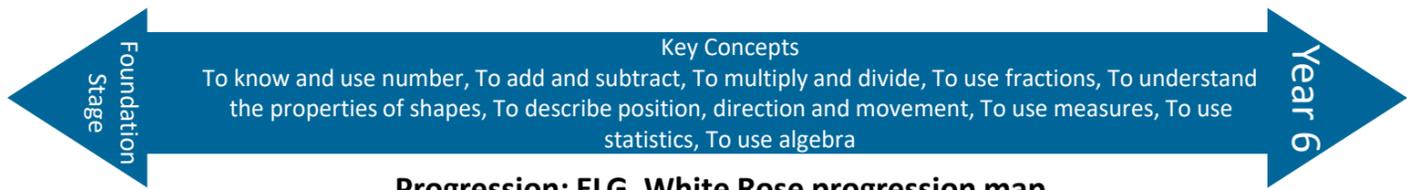
Our Maths Pathway –fractions/ shape/ position, direction and movement



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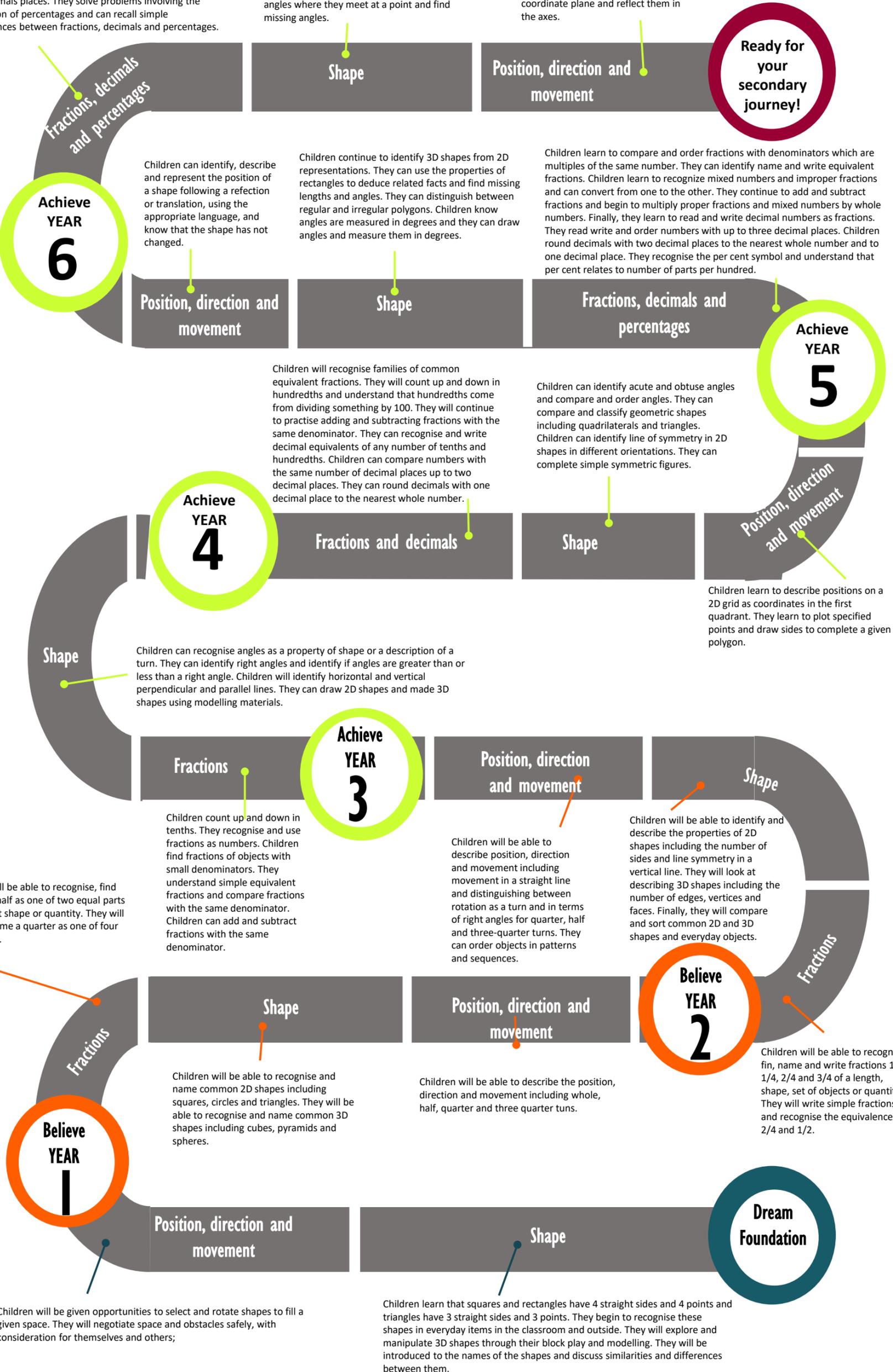


Progression: ELG, White Rose progression map

Children learn to use common factors to simplify fractions. They compare and order fractions including those greater than one. Children can add and subtract fractions with different denominators. They learn to divide proper fractions by whole numbers. Children can identify the value of each digit up to 3 decimal places. They multiply one-digit numbers with up to 2 decimal places by whole numbers. Children can use written method where the answer had up to 2 decimal places. They solve problems involving the calculation of percentages and can recall simple equivalences between fractions, decimals and percentages.

Children learn to draw 2D shapes using given dimensions and angles. They compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. Children will be able to recognise angles where they meet at a point and find missing angles.

Children build on their knowledge and describe positions on the full coordinate grid. They can draw and translate simple shapes on the coordinate plane and reflect them in the axes.



DREAM BELIEVE ACHIEVE – Together as Mathematicians

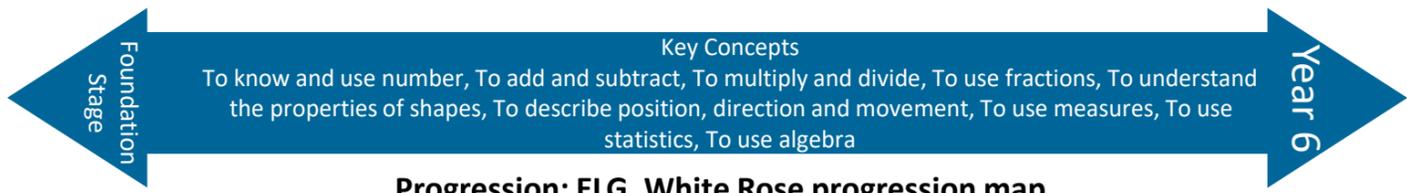
Our Maths Pathway –measures/ statistics/ algebra



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Progression: ELG, White Rose progression map

Children will solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places. They will convert between standard units of measurements of length, mass, volume and time. Children will convert between miles and kilometres. They recognise shapes with the same area can have different perimeters and vice versa. They learn to calculate the area of parallelograms and triangles.

Children will work on illustrate and name parts of circles including radius, diameter and circumference. They will learn to interpret and construct pie charts and line graphs and use these to solve problems. They will be able to calculate the mean as an average.

Children will be able to use simple formulae. They can generate and describe linear number sequences. Children will learn to express missing number problems algebraically. They will learn to find pairs of numbers that satisfy an equation with two unknowns. Children will enumerate possibilities if combinations of two variable.

Ready for your secondary journey!

