

YEAR 6 ASSESSMENT

Greater depth means that children can explain and reason mathematically, enabling them to deepen their mathematical understanding.

Assessment Standards:	
Number and Place Value	
Working towards:	
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.	
Round any number up to 100 000 to a required degree of accuracy.	
Use negative numbers in context and calculate intervals across zero.	
Solve number and practical problems that involve all of the above.	
Expected:	
Read, write, order and compare numbers to at least 10 000 000 and determine the value of each digit.	
Round any whole number to a required degree of accuracy.	
Use negative numbers in context, and calculate intervals across zero.	
Solve number and practical problems that involve all of the above.	
Greater depth:	
Addition and Subtraction, Multiplication and Division	
Working towards:	
Multiply multi-digit numbers up to 2 digits by a two digit whole number using the formal written method and long multiplication	
Divide numbers up to 3 digits by a two-digit whole number <i>less than 20</i> using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.	
Divide numbers up to 3 digits by a two-digit number less than 20 using the formal written method of short division where appropriate, interpreting remainders according to the context.	
Perform mental calculations, including with mixed operations and large numbers.	
Identify common factors, common multiples and prime numbers <i>below 30</i> .	
Use their knowledge of the order of operations to carry out calculations involving the four operations.	
Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	
Solve problems involving addition, subtraction, multiplication and division.	
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	
Expected:	
Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	
Divide numbers up to 4 digits by a two- digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.	
Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.	
Identify common factors, common multiples and prime numbers.	

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Fractions	
<u>Working towards:</u>	
Use common factors to simplify fractions; use common multiples to express <i>simple</i> fractions in the same denomination.	
Compare and order fractions.	
Add and subtract fractions with different denominators <i>which are multiples</i> , using the concept of equivalent fractions.	
Add and subtract fractions with the same denominator and denominators that are multiples of the same number.	
Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$]	
Divide <i>simple</i> proper fractions by whole numbers [for example, $\frac{1}{2} \div 2 = \frac{1}{4}$]	
Identify the value of each digit in numbers given to <i>two</i> decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.	
Multiply one-digit numbers with up to one decimal place by whole numbers.	
Use written division methods in cases where the answer has up to one decimal place.	
Solve problems which require answers to be rounded to specified degrees of accuracy.	
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
<u>Expected:</u>	
Compare and order fractions, including fractions > 1 .	
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]	
Divide simple proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]	
Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$]	
Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.	
Multiply one-digit numbers with up to two decimal places by whole numbers.	
Use written division methods in cases where the answer has up to two decimal places.	
<u>Great depth:</u>	
Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2}$]	
Divide simple proper fractions by whole numbers [for example, $\frac{4}{5} \div 8 = \frac{4}{40} = \frac{1}{10}$]	
Measurement	
<u>Working towards:</u>	
Solve problems involving the calculation and conversion of units of measure, using decimal notation up to two decimal places where appropriate.	
Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to <i>two</i> decimal places.	
Convert between miles and kilometres.	
Recognise that <i>rectangles</i> with the same areas can have different perimeters and vice versa.	

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Recognise when it is possible to use formulae for areas of shape.	
Calculate the area of right-angled triangles.	
Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³).	
Expected:	
Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.	
Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.	
Calculate the area of parallelograms and triangles.	
Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other units [for example, mm ³ and km ³].	
Geometry	
Working towards:	
Draw <i>rectangles and right-angled triangles</i> using given dimensions.	
Recognise, describe and build cuboids, including making nets.	
Compare and classify <i>simple</i> geometric shapes based on their properties and sizes and find unknown angles in any triangles.	
Name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.	
Recognise angles where they are on a straight line, or are vertically opposite, and find missing angles.	
Describe positions in the first quadrant of a coordinate grid.	
Draw and translate simple shapes on the coordinate plane.	
Expected:	
Draw 2D shapes using given dimensions and angles.	
Recognise, describe and build simple 3D shapes, including making nets.	
Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.	
Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.	
Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
Great depth:	
Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and <i>know the angles in common</i> polygons.	
Statistics	
Working towards:	
Interpret pie charts and line graphs and use these to solve problems.	
Calculate and interpret the mean of three numbers as an average.	
Expected:	
Interpret and construct pie charts and line graphs and use these to solve problems.	
Calculate and interpret the mean as an average.	