

<b>MATHS</b>	<b>2020-2021</b>	<b>Year 5 objectives</b>
<b><u>Autumn</u></b>	<b><u>Spring</u></b>	<b><u>Summer</u></b>
<p><u>Week 1</u> Read, write, order and compare values to a million.(KPI) Recap place value of digits (KPI) Count forwards / backwards in steps of powers of 10 from any given number to a million. Interpret negative numbers in context, and calculate intervals across zero. (KPI) Identify points on a number line Round any whole number up to a million to a required degree of accuracy. Solve a problem involving negative numbers Read Roman numerals to 1000</p> <p><u>Week 2</u> Multiply and divide numbers mentally drawing upon known facts Formal methods of multiplication –short and long Short division (if appropriate may do chunking for long) -showing remainder as decimal Problem solving involving multiplication and division Read Roman numerals to 1000</p> <p><u>Week 3</u> Solve x and / word problems -identifying the correct operation and following KOMAC Formal addition and subtraction with more than 4 digits. (KPI) Solve multi-step addition and subtraction problems deciding which operations to use and why. Solve word problems involving all 4 opps. -including meaning of equals sign (seesaw questions) -including real life questions involving money and measures. -Use an efficient method.</p> <p><u>Week 4</u> Show equivalent fractions including hundredths.</p>	<p><u>Week 1</u> Read, write, order and compare numbers up to a million Round any whole number up to a million to a required degree of accuracy. Addition and subtraction -mentally with increasingly large numbers(KPI) -formal with amounts including beyond 4 digits and decimals -solve + and – multistep problems using efficient methods -Checking with the inverse</p> <p><u>Week 2</u> Multiplication and division -mentally drawing upon known facts -by 10, 100, 1000 with decimals Formal multiplication methods –short, long, and with decimals Interpret data shown on line graphs-solve comparison, sum and difference problems</p> <p><u>Week 3</u> Short division and interpret remainders in context. Solve word problems involving all 4 opps. -identify how many steps are needed, -use efficient methods. -checking the answer by doing the inverse. -solve problems including scaling by simple fractions and problems involving simple rates</p> <p><u>Week 4</u> Estimate and compare acute, obtuse and reflex angles. Measure and draw angles. (KPI) Find missing angles -angles about a point, straight line, multiples of 90 degrees Add and subtract fractions Be able to multiply proper fractions and mixed numbers by whole numbers.</p> <p><u>Week 5</u></p>	<p><u>Week 1</u> 12 and 24 hour time Calculate passage of time questions. Solve problems involving converting between units of time. Solve calendar problems. Compare and order fractions Add and subtract fractions and mixed numbers Finding fractions of amounts and quantities</p> <p><u>Week 2</u> Recap formal methods of + and – with decimals Solve 2 step problems involving all 4 opps Answer problem questions which involve selecting data from a variety of tables. (Calculate area and perimeter of simple and compound shapes –only if time)</p> <p><u>Week 3</u> Multiplication and division written methods. Be able to round / down in real life. Use rulers and protractors to draw lines, angles and shapes accurately. Answer problems involving data shown on tables and charts and graphs. Volume</p> <p><u>Week 4</u> Properties of 2d and 3d shapes -distinguish between regular and irregular shapes Reflect shapes over the axis Seesaw questions and sequences Interpretation of number lines and scales. -use negative numbers in context, count forwards and backwards across zero</p> <p><u>Week 5</u> Recap formal methods -use checking methods Interpreting data, analysing findings</p> <p><u>Week 6 –assessment week</u></p>

<p>Compare and order fractions and fractions Convert between mixed numbers and improper fractions and vice versa Add and subtract fractions Calculate fractions of amounts.</p> <p><u>Week 5</u> Identify the place value of digits including decimal amounts. Recognise and use thousandths and relate them to tenths, hundredths etc. Read and write decimal numbers as fractions. -change fractions into decimals. -learn simple equivalent fractions including eighths To x and / amounts including decimals by 10, 100 and 1000 Compare and order numbers to 3dpls. (KPI) Solve problems involving numbers to 3dpls.</p> <p><u>Week 6</u> Read and plot co-ordinates on a 1 quadrant grid Solve missing co-ordinates by using properties of shapes. Identify, describe and represent the position of a shape following a reflection or translation. Reflect shapes over the axis</p> <p><u>Week 7</u> Recap telling the time to nearest minute Convert between 12 and 24 hour clock Solve problems involving converting between units of time Be able to interpret timetables (KPI) Deduce information from line graphs involving time Identify multiples, factors, primes, know primes up to 20</p> <p><u>Week 8</u> Identify 3d shapes from 2d drawings. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p>	<p>Estimate volumes by counting blocks. Translate shapes (could also include reflection)</p> <p><u>Week 6</u> Compare and order fractions Equivalent and simplify fractions Solve word problems -involving all 4 opps. - money and measures -knowledge of factors, multiples, squares and cubes (KPI)</p> <p><u>Week 7</u> Read and plot co-ordinates on a 1 quadrant grid. Calculate missing co-ordinates. Equivalence of fractions, decimals and percentages.(KPI) -calculate tricky fractions as decimals Read, write, order and compare decimals (KPI) Round decimals, solve problems which require answers to be rounded to a specified degree of accuracy</p> <p><u>Week 8</u> Formal methods -Short multiplication and division, long multiplication -make estimates Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes -make estimates by rounding</p> <p><u>Week 9</u> Drawing lines accurately, right angles and parallel lines Properties of shapes -regular / irregular (KPI) -deduce facts and missing lengths and angles Solve problems involving percentages, decimals and fractions</p> <p><u>Week 10</u> Convert between different scales of measurement Estimate area of irregular shapes by counting squares. Calculate area and perimeter of rectangles and composite shapes. Calculate area of compound shapes including the need to calculate missing sides.</p>	<p><u>Week 7</u> Long multiplication and division, including decimals – interpret remainders as fractions and decimals, rounding and rounding in real life (KPI) -also include missing digit sums -word problems involving more than 1 step Area and perimeter of compound shapes, triangles and parallelograms</p> <p><u>Week 8</u> Converting between improper fractions and mixed numbers. Compare and order fractions. Add and subtract fractions Multiply fractions and mixed numbers by whole numbers Roman numerals</p> <p><u>Week 9</u> Add and subtract numbers mentally with increasingly large numbers (KPI) Solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates. (KPI) Solve comparison, sum and difference problems using information presented on line graphs</p> <p><u>Week 10</u> Equivalences of FDP -recognise and use thousandths Rounding decimals Read, write and compare numbers up to 3dpls. Solve problems involving decimals Estimate volumes and capacity</p> <p><u>Week 11</u> Convert between different units of metric measure. Understand and use approximate equivalences between metric and imperial units. Solve problems involving measure using decimal notation and scaling Missing angles –identify angles at a point, whole turn, straight line, other multiples of 90 degrees</p> <p><u>Week 12</u> Use negative numbers in context Multiply and divide mentally drawing upon known facts</p>
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<p>-parallel and perpendicular, diagonals –what types of angles are produced</p> <p>Sequences, calculate term, work out missing values, explain whether a number will be in the sequence</p> <p><u>Week 9</u></p> <p>Long multiplication</p> <p>Short division with remainders</p> <p>Solve word problems involving all 4 operations.</p> <ul style="list-style-type: none"> <li>-make an estimate</li> <li>-using knowledge of factors, multiples, squares, cubes</li> </ul> <p>Solve real life word problems involving the need to round up or down.</p> <p><u>Week 10</u></p> <p>Calculate the perimeter and area of irregular, regular shapes, rectangles</p> <p>Calculate missing lengths.</p> <p>Estimate volume</p> <p>Investigate that some shapes can have the same area but different perimeters and vice versa.</p> <p><u>Week 11</u></p> <p>Recognise and understand % symbol</p> <p>Convert between FDP</p> <p>Calculate simple percentages of amounts.</p> <p>Solve problems which require knowing equivalences of FDP</p> <p>Be able to convert between different scales of metric measurement</p> <p>Simple metric to imperial</p> <p><u>Week 12</u></p> <p>Add and subtract mentally with larger numbers</p> <p>Use rounding as an estimate or checking method.</p> <p>Solve word problems involving all 4 oppos.</p> <ul style="list-style-type: none"> <li>-identifying the correct operation</li> </ul> <p>Solve multistep word problems.</p> <ul style="list-style-type: none"> <li>-use estimation for checking</li> </ul>	<p>Solve problems involving converting between units of time.</p> <p><u>Week 11</u></p> <p>Complete, read and interpret information on tables including timetables(KPI)</p> <p>Roman numerals</p> <p>Factors, multiples, primes (KPI)</p>	<p>Long multiplication and division</p> <p>Multiply and divide by 10,100,1000</p> <p>Solve problems involving multiplication and division including using knowledge of factors, multiples, squares and cubes</p> <p><u>Week 13</u></p> <p>Rounding larger values.</p> <ul style="list-style-type: none"> <li>-use rounding for checking</li> </ul> <p>Formal methods of addition and subtraction –with decimals</p> <p>Solve problems which require answers to be rounded to a specified degree of accuracy.</p> <p><u>Week 14</u></p> <p>Missing co-ordinates –with reflection, translation</p>
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Week 13

Identify points on a number line including negative values and temperature scales.

Calculate intermediate points on line graphs.

Be able to solve comparison, sum and difference problems using information on line graphs.

Week 14

Add, subtract and multiply fractions.

Rounding decimals

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