

WEEK 1	OBJECTIVES	SUPPORT FOR LEARNING / GUIDANCE
Number  Decimals & Fractions	<ul style="list-style-type: none"> <li>• Divide by 10, 100 and 1,000</li> <li>• Multiply decimals by integers</li> <li>• Divide decimals by integers</li> <li>• Multiply and divide decimals in context</li> <li>• Decimal and fraction equivalents</li> </ul>	<p><i>Pupils use their understanding of the relationship between unit fractions and division to work backwards by multiplying a quantity that represents a unit fraction to find the whole quantity (for example, if a <math>\frac{1}{4}</math> of a length is 36cm, then the whole length is <math>36 \times 4 = 144\text{cm}</math>).</i></p> <p><i>They practise calculations with simple fractions and decimal fraction equivalents to aid fluency, including listing equivalent fractions to identify fractions with common denominators.</i></p> <p><i>Pupils can explore and make conjectures about converting a simple fraction to a decimal fraction (for example, <math>3 \div 8 = 0.375</math>). For simple fractions with recurring decimal equivalents, pupils learn about rounding the decimal to three decimal places, or other appropriate approximations depending on the context.</i></p> <p><i>Use a variety of images to support understanding including bar modelling, string etc</i>  <a href="#"><i>NRICH Andy's marbles</i></a>  <a href="#"><i>NRICH Would you rather?</i></a>  <a href="#"><i>NRICH Forgot the Numbers</i></a></p>

WEEK 2	OBJECTIVES	SUPPORT FOR LEARNING / GUIDANCE
Number Fractions & Percentages	<ul style="list-style-type: none"> <li>• Fraction as division</li> <li>• Understand percentages</li> <li>• Fractions to percentages</li> <li>• Equivalent fractions, decimals and percentages</li> <li>• Order fractions, decimals and percentages</li> </ul>	<p><i>Pupils should use a variety of images to support their understanding of multiplication with fractions. This follows earlier work about fractions as operators (fractions of), as numbers, and as equal parts of objects, for example as parts of a rectangle. This should then progress to understanding fractions, decimals and percentages and order them.</i></p>

WEEK 3	OBJECTIVES	SUPPORT FOR LEARNING / GUIDANCE
Geometry Area & Perimeter	<ul style="list-style-type: none"> <li>Percentage of an amount - one step</li> <li>Percentage of an amount - multi-step</li> <li>Percentages - missing values</li> <li>Shapes - same area</li> <li>Area and perimeter</li> </ul>	<p><i>Pupils should consolidate their understanding of percentage when comparing quantities, sizes and scale drawings by solving a variety of problems. They might use the method of breaking the whole into ten parts to record their work.</i></p> <p><i>Pupils recognise proportionality in contexts when the relations between quantities are in the same ratio (for example, similar shapes and recipes)</i></p> <p><a href="#"><u>NRICH Orange drink</u></a>  <a href="#"><u>NRICH Pumpkin Pie</u></a></p>

WEEK 4	OBJECTIVES	SUPPORT FOR LEARNING / GUIDANCE
Area	<ul style="list-style-type: none"> <li>Area of a triangle - counting squares</li> <li>Area of a right-angled triangle</li> <li>Area of any triangle</li> <li>Area of a parallelogram</li> <li>Volume - counting cubes</li> <li>Volume of a cuboid</li> </ul>	<p><i>Pupils draw and label a triangle whilst working out the area using the correct method. This extends their knowledge of one quadrant to all four quadrants, including the use of negative numbers.</i></p> <p><i>Pupils draw and label triangles (including right angled), specified by coordinates in the four quadrants, predicting missing coordinates using the properties of shapes.</i>  <i>These might be expressed algebraically for example, translating vertex (a,b) to (a-2, b +3); (a,b) and (a +d, b +d) being opposite vertices of a square of side d.</i></p> <p><i>Pupils will then find the area and volume of cuboids.</i></p> <p><i>Link to properties of shape.</i>  <a href="#"><u>NRICH A Cartesian Puzzle</u></a>  <a href="#"><u>NRICH Eight Hidden Squares</u></a>  <a href="#"><u>NRICH Coordinate Tan</u></a>  <a href="#"><u>NRICH Ten Hidden Squares</u></a></p>

WEEKS 5 and 6	OBJECTIVES	SUPPORT FOR LEARNING / GUIDANCE
Statistics and measurement†	<ul style="list-style-type: none"> <li>• Line graphs</li> <li>• Dual bar charts</li> <li>• Read and interpret pie charts</li> <li>• Pie charts with percentages</li> <li>• Draw pie charts</li> <li>• The mean</li> </ul>	<p><i>Pupils connect their work on angles, fractions and percentages to the interpretation of pie charts and bar charts.</i></p> <p><i>Pupils link percentages/fractions or 360 degrees to calculating angles of a pie chart. This could be linked to time periods on a clock.</i></p> <p><i>Pupils connect conversion (for example, from kilometres to miles) to a graphical representation as preparation for understanding linear/proportion graphs.</i></p> <p><i>Pupils know when it is appropriate to find the mean of a data set.</i></p> <p><i>Pupils both encounter and draw graphs relating two variables, arising from their own enquiry and other subjects.</i></p> <p><i>They know approximate conversions and are able to tell if an answer is sensible.</i></p> <p><i>Pupils could be introduced to compound units for speed, such as miles per hour, and apply their knowledge in science or other subjects as appropriate.</i></p> <p><i>NB Upper KS2 PoS - Working scientifically</i>  <i>Pupils should record data and results of increasingly complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar charts and line graphs.</i></p> <p><a href="#"><u>NRICH It's a Tie</u></a>  <a href="#"><u>NRICH Match the Matches</u></a></p>