





St Mary's RC Primary School

Fraction Calculation Policy

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Addition and Subtraction	
		<p>Add and subtract fractions with the same denominator within one whole.</p> <p><u>Addition</u></p> $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ <p><u>Subtraction</u></p> $\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$ <p><i>Step 1. The denominators are already the same.</i></p> <p><i>Step 2. Subtract/add the numerator and put the answer over the same denominator.</i></p>	<p>Add and subtract fractions with the same denominator.</p> <p>[Same as Year 3]</p> <p>Simplify answers e.g.</p> $\frac{2}{4} = \frac{1}{2}$	<p>Add and subtract fractions with the same denominator [Year 3/4] and denominators that are multiples of the same number.</p> <p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example $\frac{23}{10} = 2\frac{3}{10}$]</p> <p><u>Addition</u></p> <p>Example 1:</p> <p>Make the denominator the same [Y3/4]</p> $\frac{5}{6} + \frac{7}{12} = \frac{10}{12} + \frac{7}{12} = \frac{17}{12} = 1\frac{5}{12}$ <p>"Whatever you do to the denominator you do to the numerator"</p> <p><u>Subtraction</u></p> $1\frac{2}{5} - \frac{19}{20} = \frac{7}{5} - \frac{19}{20} = \frac{28}{20} - \frac{19}{20} = \frac{9}{20}$ <p>Convert mixed number to an improper fraction</p>	<p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</p> <p><u>Addition</u></p> $4\frac{5}{6} + 2\frac{7}{12} = 6\frac{10}{12} + 2\frac{7}{12} = 8\frac{17}{12} = 6\frac{17}{12} = 6 + 1\frac{5}{12} = 7\frac{5}{12}$ <p><u>Subtraction</u></p> $6\frac{1}{5} - \frac{3}{4} = 6\frac{4}{20} - \frac{15}{20} = 5\frac{4+20}{20} - \frac{15}{20} = 5\frac{24}{20} - \frac{15}{20} = 5\frac{9}{20}$ <p>Use one from the whole [in this case $\frac{20}{20}$].</p>

St Mary's RC Primary School

Fraction Calculation Policy

Multiplication and Division			
			<p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p> <p>Diagram [Pictorial] (Cuisenaire rods for Concrete in the same way):</p> <p>This is $\frac{2}{3}$.</p>  <p>Use this to calculate $\frac{2}{3} \times 5 = \frac{10}{3} = 3 \frac{1}{3}$.</p>  <p>Abstract calculation:</p> $\frac{5}{8} \times 4 = \text{---}$ <p>Children to understand that every whole number has a denominator of 1.</p> $\frac{5}{8} \times \frac{4}{1} = \frac{20}{8} = 2\frac{4}{8} = 2\frac{1}{2}$
			<p>Multiply simple pairs of proper fractions, writing the answer in its simplest form</p> <p>Example:</p> $\frac{5}{4} \times \frac{3}{2} = \frac{15}{8} = \frac{7}{8}$ <p>Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]</p> <p>Example:</p> $\frac{1}{2} \div 2 = \text{---}$ $\frac{1}{2} \div \frac{2}{1} = \text{---}$ $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$