

## Year 5 Fractions Knowledge Organiser.

Fractions		Knowledge Organiser	
<b>Key Vocabulary</b>	<b>Equivalent Fractions</b>	<b>Compare and Order Fractions</b>	
numerator	<p>To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.</p>	<p>We can compare and order fractions by using common denominators.</p>	
denominator			
unit fraction			
non-unit fraction			
whole			
equivalent	<b>Mixed Numbers</b>	<b>Improper Fractions</b>	
mixed number	<p>Mixed numbers contain a whole number and a fraction.</p>	<p>An improper fraction has a numerator which is greater than or equal to the denominator.</p> <p style="text-align: center; font-size: 2em;"><math>\frac{5}{3}</math></p>	
improper fraction	<b>Convert an Improper Fraction to a Mixed Number</b>	<b>Convert a Mixed Number to an Improper Fraction</b>	
simplest form	<p><math>\frac{9}{4}</math></p> <p><math>9 \div 4 = 2r1</math></p> <p><math>2\frac{1}{4}</math></p> <p>Divide the numerator by the denominator.</p> <p>This shows you the whole number and the fraction.</p>	<p>Multiply the whole by the denominator to make an improper fraction.</p> <p><math>2\frac{5}{6} = \frac{12}{6} + \frac{5}{6} = \frac{17}{6}</math></p> <p>Add the fractions together.</p>	
multiple	<b>Adding and Subtracting Fractions</b>		
common denominator	<p>To add or subtract fractions with denominators that are multiples of the same number, we must change one fraction to have the same denominator.</p>		
common numerator			

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<b>Add Fractions Where the Total is Greater Than 1</b> $\frac{1}{2} + \frac{3}{4} + \frac{5}{8} = \frac{4}{8} + \frac{6}{8} + \frac{5}{8} = \frac{15}{8} = 1\frac{7}{8}$		<b>Subtract from a Mixed Number</b> $1\frac{2}{3} - \frac{2}{9} = 1\frac{6}{9} - \frac{2}{9} = 1\frac{4}{9}$ <table border="1"> <thead> <tr> <th>starting number</th> <th>find the equivalent fraction</th> <th>subtract</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	starting number	find the equivalent fraction	subtract			
starting number	find the equivalent fraction	subtract						
<b>Add Mixed Numbers</b> $1\frac{1}{4} + \frac{3}{8} = 1\frac{2}{8} + \frac{3}{8} = 1 + \frac{5}{8} = 1\frac{5}{8}$ $1\frac{1}{4} + \frac{3}{8} = \frac{5}{4} + \frac{3}{8} = \frac{10}{8} + \frac{3}{8} = \frac{13}{8} = 1\frac{5}{8}$								
<b>Multiply Unit Fractions by an Integer</b> $\frac{1}{3} \times 5 = \frac{5}{3}$	<b>Multiply Non-Unit Fractions by an Integer</b> $2 \times \frac{4}{9} = \frac{8}{9}$	<b>Subtract Two Mixed Numbers</b> $2\frac{3}{4} - 1\frac{5}{8} = 1\frac{1}{8}$						
<b>Multiply Mixed Numbers by Integers</b> <p>Convert to an improper fraction and multiply the numerator by the integer.</p> $2\frac{1}{4} \times 2 = \frac{9}{4} \times 2 = \frac{18}{4} = 4\frac{2}{4} = 4\frac{1}{2}$ <p>Use repeated addition.</p> $2\frac{1}{4} \times 2 = 2\frac{1}{4} + 2\frac{1}{4} = 4\frac{2}{4} = 4\frac{1}{2}$		<b>Subtract from a Mixed Number - Breaking the Whole</b> $2\frac{1}{4} - \frac{3}{8} = 2\frac{2}{8} - \frac{3}{8} = 1\frac{10}{8} - \frac{3}{8} = 1\frac{7}{8}$						