


Subject	Year	Month	
Mathematics	7	May	
<p style="text-align: center;">CALCULATING WITH FRACTIONS</p>			6 LESSONS
Content (Intent)			
<p>Prior Learning</p> <p>KEY STAGE 2 (Very high level , drilled in for SATS)</p> <ul style="list-style-type: none"> • equivalent fractions • Multiply a proper fraction by a proper fraction • Divide a proper fraction by a whole number 	<p>Future Learning</p> <p>Year 9– Probability Year 10 - Fractions</p>		
<p>Objectives</p> <ul style="list-style-type: none"> • Work with a mixture of proper and improper fractions and mixed numbers <ul style="list-style-type: none"> ✓ Adding ✓ Subtracting ✓ Multiplying ✓ Dividing 	<p>For teaching purposes</p> <p>Possible Questions:</p> <ul style="list-style-type: none"> • Show me a proper (improper) fraction. And another. • Show me a mixed number fraction. And another. • Jenny thinks that you can only multiply (or divide) fractions if they have the same common denominator. Do you agree with Jenny? Explain. • Kenny thinks that $\frac{6}{10} \div \frac{3}{2} = \frac{2}{5}$. Do you agree with Kenny? Explain. <p>Possible Misconceptions:</p> <ul style="list-style-type: none"> • may think that you simply can multiply the whole number part of mixed numbers and multiply the fractional part separately • may overcomplicate multiplying fractions by finding common denominators. 		
Pedagogical notes (implementation)		How will understanding be assessed & recorded (Impact)	
<p>It is important that pupils are clear that the methods for addition and subtraction of fractions are different to the methods for multiplication and subtraction.</p> <p><i>When adding and subtracting mixed numbers pupils could deal with the whole numbers and fraction separately, as well as convert to improper fractions.</i></p> <p><i>When multiplying and dividing mixed numbers, all fractions must be converted to improper.</i></p> <p>Notation Mixed number notation Horizontal / diagonal bar for fractions</p>		<p>BAM task 12 – Calculating with Fractions End of Year Assessment in June/July</p> <p style="background-color: #d9e1f2;">How can parents help at home?</p> <p>MathsWatch clips (Qualifications KS3) N36, N37a, N37b, N41, N42a, N42b</p>	
Further reading/discussion			
<p>Reading / Enrichment</p> <p>NCETM: The Bar Model, Teaching fractions, Fractions videos</p> <p>KM: Mixed numbers: mixed approaches</p> <p>NRICH: Would you rather?</p> <p>NRICH: Keep it simple</p> <p>NRICH: Egyptian fractions</p> <p>NRICH: The greedy algorithm</p> <p>NRICH: Fractions jigsaw</p> <p>NRICH: Countdown fractions</p>	<p>Literacy</p> <p>Mixed number Equivalent fraction Simplify, cancel, lowest terms Proper fraction, improper fraction, top-heavy fraction, vulgar fraction Percent, percentage Multiplier Increase, decrease</p>	<p>Numeracy Links</p>	<p>Careers Links</p> <p>Chef/Dietitian Architect Pharmacist Nursing Basic numeracy requirement for all careers</p>