

Resource sheet 5: Long and medium term planning

Model B

Expected progress of a student entering year 7 with a secure or high level 4

Topic: Fractions and decimal equivalents

Year 7	Main teaching	Extend where Appropriate				
	Review where appropriate	Main teaching	Extend where Appropriate			
		Review where appropriate	Main teaching	Extend where Appropriate		
			Review where appropriate	Main teaching		
Year 8						
Year 9						
Year 10 and 11						
Stage 1 Level 3, 4	Stage 2 Levels 4, 5	Stage 3 Levels 5, 6	Stage 4 Levels 5, 6, 7	Stage 5 Levels 6, 7, 8 Grades C, B	Stage 6 Levels 7, 8, EP Grades B, A	Stage 7 Levels 8, EP Grades A, A*
<ul style="list-style-type: none"> Read and write fractions using words Understand the words numerator & denominator Recognise whether a shape is split into thirds, quarters etc... Use fraction notation to describe parts of shapes Understand that a fraction taken from a shape and the fraction remaining make up one whole. Recognise that some fractions can be written more simply Shade fractions of shapes by comparing equivalent fractions 	<ul style="list-style-type: none"> express a smaller whole number as a fraction of a larger one; simplify fractions by cancelling all common factors and identify equivalent fractions; convert terminating decimals to fractions, e.g. $\frac{23}{100}$ use diagrams to compare two or more simple fractions 	<ul style="list-style-type: none"> recognise that a recurring decimal is a fraction; use division to convert a fraction to a decimal; order fractions by writing them with a common denominator or by converting them to decimals Key in fractions (when using a calculator) and recognise the equivalent decimals form, and use this to compare and order fractions) Recognise recurring decimals when they are rounded on the calculate, e.g. $2 \div 3$ is displayed as 0.666 666 67 	<ul style="list-style-type: none"> understand the equivalence of simple algebraic fractions; know that a recurring decimal is an exact fraction Know the key on a calculator that converts a fraction to a decimal, and use the fraction key when calculating with fractions <p>e.g. use a calculator to work out the answer as a fraction for $\frac{12}{19} + \frac{17}{22}$</p>	<p>Explain the patterns found in recurring decimals</p> <p>Justify why decimals recur or terminate by considering factors of the denominator</p>	<p>Explore the historical and culture roots of the number system and use algebra to justify and prove some of its features, e.g. that all recurring decimals can be expressed as a fraction.</p>	<p>Show insight into the finite density of the number line. Make sense of the proof that $\sqrt{2}$ is irrational.</p>