



**Topic: Fractions, Decimals and Percentages (chapter 5 and 8)**

**Prior learning:**

Working with coordinates  
 Number lines  
 Estimation

Tally charts  
 4 operations  
 Pie charts  
 Fractions, percentages, and decimals

Learning sequences				Endpoints
	Acquiring	On track	Extending	
<b>Main Learning Steps</b>	<ul style="list-style-type: none"> <li>■ Accurate recall numbers to various place values</li> <li>■ Simplify and list equivalent fractions</li> <li>■ shade representations of percentages and fractions</li> </ul>	<ul style="list-style-type: none"> <li>■ Convert all FDP</li> <li>■ Find basic fraction on an amount</li> <li>■ Find basic percentage of an amount</li> </ul>	<ul style="list-style-type: none"> <li>■ Convert FDP with mixed and improper values</li> <li>■ Find all fractions on an amount and find the original value given a fraction of an amount</li> <li>■ Find a percentage of an amount over 100%</li> </ul>	<ul style="list-style-type: none"> <li>▪ To name numbers of various place values</li> <li>▪ To convert values in tenths and hundredths</li> <li>▪ To convert fractions, decimals and percentages</li> <li>▪ To simplify fractions</li> <li>▪ To convert mixed and improper fractions, decimals and percentages (H)</li> <li>▪ To find fractions and percentages of amounts</li> <li>▪ To find percentages of amount of more than 100% (H)</li> <li>▪ To complete problem solving with fraction of amounts (H)</li> </ul>
		<b>Working towards</b>	<b>Advancing</b>	
	<ul style="list-style-type: none"> <li>■ Convert tenths and hundredths in FDP</li> <li>■ Basic conversion of fractions and decimals</li> <li>■ Basic conversion of percentages</li> </ul>	<ul style="list-style-type: none"> <li>■ Conver FDP using division</li> <li>■ More complex percentage of an amount</li> <li>■ Convert mixed and improper fractions (H)</li> <li>■ Link fractions to proportions and pie charts</li> <li>■ More complex fraction of amounts</li> </ul>		
<b>Assessments</b>	<ul style="list-style-type: none"> <li>• Check of understanding in class and homework</li> <li>• End of unit test</li> </ul>			

**Where will we use these ideas again:**

Data analysis

Fraction, decimal percentage GCSE questions

Inequality



**Topic: Types of Number (chapter 15)**

**Prior learning:**  
 Timetables  
 Prime numbers

Fractions  
 4 operations  
 Sequences

Venn Diagrams

Learning sequences				Endpoints
	Acquiring	On track	Extending	
<b>Main Learning Steps</b>	<ul style="list-style-type: none"> <li>■ Understand a factor and multiple</li> <li>■ Recognize the first 10 square numbers</li> <li>■ Be able to find square and cubed numbers</li> </ul>	<ul style="list-style-type: none"> <li>■ Find the HCF and LCM of two numbers through listing</li> <li>■ Recognize square roots</li> <li>■ Recognize prime numbers up to 100</li> </ul>	<ul style="list-style-type: none"> <li>■ Using PF decomposition and Venn Diagrams to find the HCF and LCM of two values</li> <li>■ Understand and complete questions with proof</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>To be able to list factors and multiples</b></li> <li>▪ <b>To be able to list and identify squared and cubed numbers</b></li> <li>▪ <b>To be able to find square and cubed roots</b></li> <li>▪ <b>To understand and use order of operations</b></li> <li>▪ <b>To find the HCF and LCM of two numbers</b></li> <li>▪ <b>To recall prime numbers</b></li> <li>▪ <b>To find the prime factor decomposition of values</b></li> <li>▪ <b>To use the prime factor decomposition to find HCF and LCM (H)</b></li> <li>▪ <b>To use and understand proof (H)</b></li> </ul>
	Working towards	Advancing		
	<ul style="list-style-type: none"> <li>■ List factors and multiples of numbers</li> <li>■ Recognize the first 5 cubed numbers</li> <li>■ Understand prime values</li> <li>■ Understand and use BIDMAS</li> </ul>	<ul style="list-style-type: none"> <li>■ Problem solving with BIDMAS e.g. add in brackets</li> <li>■ Find the prime factor decomposition of values</li> </ul>		
<b>Assessments</b>	<ul style="list-style-type: none"> <li>• Check of understanding in class and homework</li> <li>• End of unit test</li> </ul>			

<p><b>Where will we use these ideas again:</b>          Probability          Venn diagram          Substitution</p>	<p>Factorization          Sequences (KS4)</p>
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**Topic: Direct Numbers and Decimals (chapter 9)**

*Prior learning:*

Basic concept of negative numbers (context of money)  
 Calculations that cross zero  
 Multiplication as repeated addition

Substitution of positive numbers  
 Solving one step equations (bar model)  
 BIDMAS

Learning sequences				Endpoints
	Acquiring	On track	Extending	
<b>Main Learning steps</b>	<ul style="list-style-type: none"> <li>■ Understand what is a negative value</li> <li>■ Multiplication and division with decimals</li> </ul>	<ul style="list-style-type: none"> <li>■ Addition and subtraction with direct</li> <li>■ Addition and subtraction with decimals</li> </ul>	<ul style="list-style-type: none"> <li>■ Multiplication with decimals</li> <li>■ Division with decimals</li> <li>■ Given that questions with decimal calculations</li> </ul>	<ul style="list-style-type: none"> <li>▪ To add and subtract with directed numbers</li> <li>▪ To multiply and divide with directed numbers</li> <li>▪ To complete substitutions with directed numbers</li> <li>▪ To solve two step equations</li> <li>▪ To add and subtract with decimals</li> <li>▪ To multiply and divide with decimals (H)</li> </ul>
	<b>Working towards</b>	<b>Advancing</b>		
	<ul style="list-style-type: none"> <li>■ Complete addition of directed values</li> </ul>	<ul style="list-style-type: none"> <li>■ Substitution with directed values</li> <li>■ Solve two step equations</li> </ul>		
<b>Assessments</b>	<ul style="list-style-type: none"> <li>• Check of understanding in class and homework</li> <li>• End of unit test</li> </ul>			

<p><b>Where will we use these ideas again:</b>          Sequences          Brackets, equations, inequalities (WRM 8)</p>	<p>Forming and solving equations, formulae(KS4)          Estimation (KS4)</p>
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**Topic: Area**

**Prior learning:**

Use 4 operations

Calculations with integers

Naming and recognizing various shapes

Learning sequences			Endpoints
Acquiring	On track	Extending	
Main Learning steps	<ul style="list-style-type: none"> <li>■ Find the area of shapes by counting squares</li> <li>■ Find the area of squares and rectangles</li> </ul>	<ul style="list-style-type: none"> <li>■ find the surface area of cuboids</li> <li>■ Find the area of compound rectangles</li> </ul>	<ul style="list-style-type: none"> <li>■ Find the area of trapeziums</li> </ul>
	<b>Working towards</b>	<b>Advancing</b>	
	<ul style="list-style-type: none"> <li>■ Find the area of triangles</li> </ul>	<ul style="list-style-type: none"> <li>■ Find the area of parallelograms</li> <li>■ Find the area of rhombus</li> </ul>	
Assessments	<ul style="list-style-type: none"> <li>• Check of understanding in class and homework</li> </ul>		

<i>Where will we use these ideas again:</i> Volume	Surface Area Compound areas
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