

Birkdale High School		Mathematics Department Foundation Stage	Curriculum Map
Unit 4: Simple equations		Year Group: 7	
INTENT: Aims of the Unit	IMPLEMENTATION: Knowledge and delivery		IMPACT: Assessment
<p>In Mathematics Year 7 we are looking at students completing the Mastery approach to learning. In this unit we are looking to introducing and solve equations.</p> <p>Having studied positive and negative numbers students start to learn about abstract mathematics and to understand that the rules for integers hold true in an algebraic context and including writing expressions and formulae and start to solving equations using manipulatives.</p>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>• Equations in one variable</li> <li>• Writing equations to solve problems</li> </ul> <p><b>Delivery</b></p> <ul style="list-style-type: none"> <li>• Teacher led instruction using activstudio</li> <li>• Class discussion</li> <li>• WAGOLLs</li> <li>• Bar Modelling</li> <li>• Random/Targeted Questioning</li> <li>• Textbook questions</li> <li>• Tutorial lessons</li> </ul> <p><b>Possibly to include</b></p> <ul style="list-style-type: none"> <li>• Variation theory</li> <li>• Treasure hunts</li> <li>• Puzzles</li> <li>• Mathsbox settlers</li> <li>• Manipulatives</li> </ul>	<p><b>What knowledge are you assessing?</b></p> <ul style="list-style-type: none"> <li>• understanding the concept of equations and balancing</li> <li>• solve one step simple equations in one variable using a T bar method</li> <li>• solve two step equations in one variable using a T bar method</li> <li>• solve equations with unknowns on both sides</li> </ul> <p><b>Which elements of fluency of knowledge are you assessing?</b></p> <ul style="list-style-type: none"> <li>• Express written problems in algebraic notation</li> <li>• Set up formulae to connect variables</li> <li>• Evaluate expressions and formulae by substitution</li> <li>• write simple equations in one variable to solve problems (involving unknown on one and two sides)</li> </ul>	
<p><b>Enabling Learning</b></p> <ul style="list-style-type: none"> <li>• four operations in number for positive and negative integers</li> <li>• squares and cubes of numbers</li> <li>• GEMS</li> <li>• algebraic notation</li> </ul>			
Key Vocabulary		Wider Learning	
<p><i>Tier 2: High frequency / Multiple meaning</i></p> <p>represent, letters, substitute, expression, simplify, term, formula, express, linear, solve, equation</p>	<p><i>Tier 3: Subject related.</i></p> <p>algebra</p>	<p><b>SMSC / RWCM / CEIAG</b></p>	

Birkdale High School		Mathematics Department Foundation Stage	Curriculum Map		
Unit 5: Fractions		Year Group: 7			
INTENT: Aims of the Unit	IMPLEMENTATION: Knowledge and delivery		IMPACT: Assessment		
<p>In Mathematics Year 7 we are looking at students completing the Mastery approach to learning. In this unit we are looking at introducing algebra.</p> <p>Having studied positive and negative numbers this chapter introduces fractions as part of a whole and learning to use all four operations with fractions.</p>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>Quantities as fractions</li> <li>Equivalent fractions and comparing fractions</li> <li>Fraction of a quantity</li> <li>Addition and subtraction of fractions and mixed numbers</li> <li>Multiplication of fractions and mixed fractions</li> <li>Division of fractions and mixed fractions</li> <li>Use of calculator for fractions</li> </ul> <p><b>Delivery</b></p> <ul style="list-style-type: none"> <li>Teacher led instruction using activstudio</li> <li>Class discussion</li> <li>WAGOLLs</li> <li>Random/Targeted Questioning</li> <li>Textbook questions</li> <li>Tutorial lessons</li> </ul> <p><b>Possibly to include</b></p> <ul style="list-style-type: none"> <li>Variation theory</li> <li>Treasure hunts</li> <li>Puzzles</li> <li>Mathsbox settlers</li> <li>Manipulatives</li> </ul>	<p><b>What knowledge are you assessing?</b></p> <ul style="list-style-type: none"> <li>Identify types of fractions</li> <li>Find equivalent fractions</li> <li>Find fraction of an amount</li> <li>Compare two or more fractions</li> <li>Add and subtract fractions</li> <li>Multiply and divide fractions</li> <li>Use calculator to evaluate fraction problems</li> </ul> <p><b>Which elements of fluency of knowledge are you assessing?</b></p> <ul style="list-style-type: none"> <li>Convert between types of fractions</li> <li>Order a list of fractions</li> <li>Find a fraction of a quantity</li> <li>solve wordy problems using all four operations and fractions</li> </ul>			
Enabling Learning					
<ul style="list-style-type: none"> <li>four operations in number for positive and negative integers</li> <li>BIDMAS</li> <li>understanding that fraction is part of a whole</li> <li>multiples and common multiples</li> <li>recognise types of fractions</li> </ul>					
Key Vocabulary		Wider Learning			
<p><i>Tier 2: High frequency / Multiple meaning</i></p> <p>fraction, quantity, rational, irrational, equivalent, top heavy, compare, proper, multiples, common, improper</p>	<p><i>Tier 3: Subject related.</i></p> <p>denominator, numerator, reciprocal</p>	<p><b>SMSC / RWC / CEIAG</b></p>			