

## <u>Armfield Academy – Mathematics Department</u>

## Year 8 Curriculum Overview



\*\*Note: Objectives in blue are additional higher content for extension\*\*

In addition to google classroom, maths home Learning is completed using <u>Hegarty Maths</u>. A Home Support guide can be found here.



Half Term 1				
Date	Curriculum Overview	Home Learning		
		Hegarty Maths Video and Quiz Numbers		
WC 02/09	Constructing, measuring and using geometric notation			
	- Drawing and measuring lines and angles using a ruler			
WC 06/09	and protractor			
	- Understanding and using notation for lines and angles			
WC 13/09	- Understand parallel and perpendicular			
	- Recognise types of triangle, quadrilateral and other			
	polygons			
	- Drawing triangles given SSS, SAS, ASA			
	Drawing and interpreting pie charts			
	Drawing and interpreting pie charts			
WC 20/09	Geometry	554 - Rectangles		
	<ul> <li>Solve problems using the area of rectangles and</li> </ul>	556 - Parallelograms		
	parallelograms	557 - Triangles		
	<ul> <li>Solve problems using the area of triangles</li> </ul>	559 – Trapezia (H)		
	<ul> <li>Solve problems using the area of trapezia (H)</li> </ul>	456 – Naming sides and angles		
	<ul> <li>Understand and use letter and labelling conventions</li> </ul>	450 – Naming sides and angles		
	including those for geometric figures			
	<ul> <li>Draw and measure line segments including geometric</li> </ul>			
	figures			
	<ul> <li>Understand angles as a measure of turn</li> </ul>			
	- Measure angles up to 180°			
	- Draw angles up to 180°			
	<ul> <li>Draw and measure angles between 180° and 360°</li> </ul>			
WC 27/09		812 – Angles around a point (1)		
	<ul> <li>Understand and use the sum of angles at a point</li> </ul>	813 - Angles around a point (2)		
	- Understand and use the sum of angles at a point - Understand and use the sum of angles on a straight line	477 – Angles on a straight line (1) 478 - Angles on a straight line (2)		
	- Understand and use the squality of vertically opposite	480 – Vertically opposite angles		
	angles	To vertically appoints alligned		
	- Know and apply the sum of angles in a triangle			
	Know and apply the sum of angles in a quadrilateral			
	- Solve angle problems using properties of triangles and			
	quadrilaterals			
	- Solve complex angle problems			
	Solve complex ungle problems			
WC 04/10	Ratio and Scale	329 – Simplify Ratios		
	- Understand ratio and its link to multiplication	331 – Write ratios in the form 1:n or n:1		
WC 11/10	- Circumference of a circle	332 – Share in a given ratio 333 – Share in a given ratio		
	- Use ratio notation	334 – Share in a given ratio		
	- Reduce ratios to simplest form	335 – Harder problems involving ratios		
	- Solve ratio problems	330 – Write ratios as fractions/proportions		
	- Ratio in the form 1:n			
	- Comparing ratios			
Half Term 2				
Dete	Curriculum Overview	Home Learning		
Date		Hegarty Maths Video and Quiz Numbers		
WC 01/11	Multiplicative Change	339 to 341 – Direct proportion		
		739 to 740 – Recipe problems		

WC 08/11	<ul> <li>Use scale factors, linking to ratio, to solve simple directional proportion problems</li> <li>Scale diagrams and maps</li> </ul>	864 to 868 Scale diagrams 608 to 610 Similar polygons 611 to 613 Similar triangles 712 to 713 Conversion graphs 707 to 708 Converting currency	
WC 15/11 WC 22/11	Multiplying and dividing fractions  - Multiplying and dividing a fraction by an integer  - Multiplying and dividing a fraction by a fraction  - Multiplying and dividing mixed numbers	67 – Multiply whole number by fractions 68, 69 - Multiplying fractions 70 – Dividing fractions 71 – Reciprocal of fractions 172 – Expressions with algebraic fractions	
WC 29/11 WC 06/12 WC 13/12	<ul> <li>Working in a Cartesian plane</li> <li>Plotting and interpreting straight line graphs</li> <li>Equations of lines parallel to the axes</li> <li>Model situations by translating them into expressions, formulae and graphs</li> <li>Find the equation of a straight line (H)</li> </ul>	199 – Cartesian axes and coordinates 205 – Drawing line graphs from coordinates 206 - 208 – Straight line graphs	
Half Term 3	- Find the equation of a straight line (H) - Find the mid-point of a line segment (H) - Find the gradient of a line segment (H) - Drawing quadratic graphs (H)	200 – midpoint of a line segment 201 – Gradient of a line segment 251 – Drawing quadratic graphs from a table	
Date	Curriculum Overview	Home Learning	
WC 03/01 WC 10/01	Collecting and Representing data  - Scatter graphs and correlation (and line of best fit)  - Listing outcomes	453 – Scatter Diagrams (1) 454 – Scatter Diagrams (2)  401 - Data collection sheets (tally charts)	
WC 17/01	<ul> <li>Read, interpret and collect data in frequency tables</li> <li>Represent and interpret data in two way tables</li> </ul> Probability (Further)	402 - Grouped frequency tables (discrete) 403 - Grouped frequency tables (continuous)  422 - Two way tables 358 - 359 - Probability of more than one event	
WC 24/01	<ul> <li>Sample space diagrams</li> <li>Probabilities from two way tables</li> <li>Probabilities from venn diagrams</li> <li>Product rule for number of outcomes (H)</li> </ul>	423 - 424 - Two way tables 383 - 384 - Venn diagrams for probability (1) and (2) extension: 385 - Venn diagrams for probability (3) 671 - 672 - Product rule for counting	
WC 31/01 WC 07/02	Brackets, equations and inequalities	151 - 153 - Writing algebraic expressions (1) (2) and (3) 154 - Expressions, equations, identities and formulae 160 - Expand a single bracket 161 - Expand two single brackets & simplify 168 - 169 - Factorise simple expressions (1) and (2)	
Half Term 4			
Date	Curriculum Overview	Home Learning Hegarty Maths Video and Quiz Numbers	
WC 21/02 WC 28/02 WC 07/03	-		
WC 14/03	•		
WC 21/03			
WC 28/03			
Half Term 5			

Date	Curriculum Overview	Home Learning Hegarty Maths Video and Ouiz Numbers		
WC 19/04	-			
WC 26/04				
WC 02/05	-			
WC 09/05				
	-			
WC 16/05				
WC 23/05				
Half Term 6				
Date	Curriculum Overview	Home Learning <u>Hegarty Maths Video and Quiz Numbers</u>		
WC 06/06	-			
WC 13/06				
WC 20/06 WC 27/06				
WC 04/07				
WC 11/07				
WC 18/07				