

The Spires College Mathematics Department Scheme of Learning

Autumn Term 1 [September to October] – MathsWatch Clips

	Topic 1 MathsWatch Clips		Topic 2 MathsWatch Clips		Topic 3 MathsWatch Clips	
Year 7	Sequences	N12 - Number Patterns A11a - Sequences - Term-to-Term Rule A22 - Special Sequences	Using Algebraic Notation	N26 – Function Machines & Inverse Operations A4 – Algebraic Notation A10 – Substitution	Equality & Equivalence	A2 – Algebraic Vocabulary A12 – Solving Basic Equations A6 – Collecting Like Terms
Year 8	Ratio and scale	R1a – Introduction to Ratio – Real-Life Contexts R1b – Introduction to Ratio - Shading R5a – Ratios – Simplifying R5b – Ratios - Sharing	Multiplicative Change	R2 – Unit Conversions R6 – Scale Factors - Maps R8 - Direct Proportion R10 – Scale Factors – Similar Shapes G15 – Scale Drawings	Multiplying and dividing fractions	N37a – Fractions – Multiplying an Integer N37b – Fractions – Dividing an integer N42a – Further Fractions – Multiplying N42b – Further Fractions – Dividing
Year 9	Straight Line Graphs	96 - Straight Line Graphs 97 - The Gradient of a Line 159a - Finding the Equation of a Straight Line - $y=mx+c$ 159b - Finding the Equation of a Straight Line - Gradient and Coordinates	Forming & Solving Equations	135a - Solving Equations - Balancing 135b - Solving Equations - Float & Ping 136 - Rearranging Simple Formulae 137 - Forming Formulae and Equations 138 - Inequalities on a Number Line 139 - Solve Linear Inequalities	Testing conjectures	28 - Factors, Multiples and Primes 78 - Product of Primes 134b - Expanding and Simplifying Brackets - Double Set of Brackets 178 - Product of Three Binomials
Year 10	Congruence, Similarity & Enlargement	12b - Tessellations and Congruency - Congruent Shapes 120 - Angles and Parallel Lines 144 - Similar Shapes 148 - Enlargements 166 - Congruent triangles 181a - Enlargement - Negative Scale Factor - Using Construction Lines 181b - Enlargement - Negative Scale Factor - Using Column Vectors	Trigonometry	150a - Pythagoras' Theorem - A Simple Approach 150b - Pythagoras' Theorem - An Algebraic Approach 168 - Trigonometry		

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Autumn Term 2 [November to December] – MathsWatch Clips

	Topic 1 MathsWatch Clips		Topic 2 MathsWatch Clips		Topic 3 MathsWatch Clips	
Year 7	Place Value & Ordering	N1a - Place Value - Integers N1b - Place Value - Decimals N2a - Ordering Numbers - Integers N2b - Ordering Numbers - Decimals N8 - Reading Scales N27a - Rounding - Nearest 10, 100, 1000 N27b - Rounding - Decimal Places N38 - Rounding - Significant Figures S6 - Median, Mode and Range	Fraction, Decimal, Percentage Equivalence	N1b - Place Value - Decimals N23a - Introduction to Fractions - Shading N23b - Introduction to Fractions - Equivalent Fractions N24a - Percentages - Introduction N32 - Fractions, Decimals and Percentages		
Year 8	Cartesian Plane	A1a - Coordinates - 1st Quadrant A1b - Coordinates - All 4 Quadrants A5 - Horizontal and Vertical Lines A14a - Straight Line Graphs - Introduction A14b - Straight Line Graphs - Gradient	Representing Data	P4 - Two-Way Tables S3 - Frequency Tables - Ungrouped Data S4 - Frequency Tables - Grouped Data S5 - Frequency Diagrams S8 - Scatter Diagrams	Tables & Probability	P1 - The Probability Scale P5 - Two-Way Tables - Probabilities P6 - Venn Diagrams
Year 9	Three Dimensional Shapes	9 - Simple Geometric Definitions 10 - Polygons 43 - Properties of Solids 44 - Nets 51 - Plans and Elevations 53 - Area of a Rectangle 54 - Area of a Triangle 55 - Area of a Parallelogram 56 - Area of a Trapezium 114a - Surface Area of a Prism - Cuboids 114b - Surface Area of a Prism - Triangular Prisms 115 - Volume of a Cuboid 117 - Area of a Circle 118 - Circumference of a Circle 119 - Volume of a Prism 169 - Spheres 170 - Pyramids 171 - Cones	Constructions & Congruency	13 - Names of Angles 46a - Measuring and drawing Angles - Measuring 46b - Measuring and drawing Angles - Drawing 47 - Drawing a Triangle Using a Protractor 145a - Constructing Perpendiculars - Bisecting a Line 145b - Constructing Perpendiculars - From any Point 145c - Bisecting an Angle 146 - Loci 166 - Congruent triangles		

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Year 10	Equations & Inequalities	96 - Straight Line Graphs 135a - Solving Equations - Balancing 135b - Solving Equations - Float & Ping 137 - Forming Formulae and Equations 138 - Inequalities on a Number Line 139 - Solve Linear Inequalities	Simultaneous Equations	140 - Simultaneous Equations Graphically 162 - Simultaneous Equations Algebraically
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