Haydock High School Mathematics Department – Learning Overview

Year 7	1a **Algebra Thinking** • Sequences • Understanding & using algebraic notation • Equality & equivalence	1b **Place Value & Proportion** • Place value & ordering integers & decimals • Fractions, decimals & percentages equivalence	2a **Applications of Number** • Solving problems with addition & subtraction • Solving problems with multiplication & division	2b **Directed Numbers & Fractional Thinking** • Four Operations with directed numbers • Addition & subtraction of fractions	3a **Lines & Angles** • Constructing measuring & using geometric notation • Developing geometric reasoning • Developing number sense	3b **Reasoning with Number** • Developing number sense • Sets & Probability • Prime numbers & proof
Assessment Point tests	**Assessment point 1: Week beginning 21st October Focus** • Sequences • Understanding & using algebraic notation • Equality & equivalence		**Assessment point 2: Week beginning 3rd February Focus** • Place value & ordering integers & decimals • Fractions, decimals & percentages equivalence • Solving problems with addition & subtraction • Solving problems with multiplication & division		**Assessment point 3: Week beginning 8th June Focus** • Four Operations with directed numbers • Addition & subtraction of fractions • Constructing measuring & using geometric notation • Developing geometric reasoning • Developing number sense	
Assessment point revision	Students should use their exercise books to revise key points for each unit and complete exercises. On MathsWatch watch the following videos and attempt practice questions: Clip 37 Clip 104 Clip 141 Clip 5 Clip 100 Clip 105		Students should use their exercise books to revise key points for each unit and complete exercises. On MathsWatch watch the following videos and attempt practice questions: Clip 1 Clip 92 Clip 2 Clip 3 Clip 85 Clip 18 Clip 19		Students should use their exercise books to revise key points for each unit and complete exercises. On MathsWatch watch the following videos and attempt practice questions: Clip 75 Clip 71 Clip 9 Clip 29 Clip 30	

Haydock High School Mathematics Department – Learning Overview

Year 8	1a **Proportional Reasoning** • Ratio & Scale • Multiplicative Change	1b **Representations** • Working in the Cartesian plane • Collecting & representing data • Tables	2a **Algebraic Techniques** • Brackets, Equations & Inequalities • Indices	2b **Developing Number** • Fractions Percentages • Standard Index Form • Number Sense	3a **Developing Geometry** • Angles in parallel lines • Area of trapezia • Lines of symmetry & reflections	3b **Reasoning with Data** • Line symmetry & reflections • The data handling cycle • Measure of location
Assessment Point tests	**Assessment point 1: 7th October** **Focus** • Ratio & Scale • Multiplicative Change		**Assessment point 2: 20th January** **Focus** • Multiplying & Dividing Fractions • Working in the Cartesian plane • Collecting & representing data • Tables • Brackets, Equations & Inequalities		**Assessment Point 3: 18th May** **Focus** • Sequences • Indices • Fractions & Percentages • Standard Index Form • Number Sense • Angles in parallel lines • Area of trapezia	
Assessment point revision	Students should use their exercise books to revise key points for each unit and complete exercises. On MathsWatch watch the following videos and attempt practice questions: Clip 4 Clip 38 Clip 106 Clip 107 Clip 42		Students should use their exercise books to revise key points for each unit and complete exercises. On MathsWatch watch the following videos and attempt practice questions: Clip 73 Clip 74 Clip 8 Clip 113 Clip 96 Clip 61 Clip 58 Clip 129 Clip 93 Clip 134 Clip 135		Students should use their exercise books to revise key points for each unit and complete exercises. On MathsWatch watch the following videos and attempt practice questions: Clip 102 Clip 104 Clip 141 Clip 85 Clip 88 Clip 89 Clip 83 Clip 112 Clip 91 Clip 45 Clip 120 Clip 121 Clip 123 Clip 56	

Haydock High School Mathematics Department – Learning Overview

Year 9

1a
Higher Set 1, 2
- Two-Way Tables
- Frequency Trees
- Venn Diagrams
- Product of Primes
- Multiples in Context
- Exchange Rates
- Estimating
- Percentages

Crossover Set 3, 4, 5
- Two-Way Tables
- Frequency Trees
- Venn Diagrams
- Product of Primes
- Multiples in Context
- Exchange Rates
- Estimating

Foundation Set 6, 7
- Place Value
- Decimals
- Powers & Roots
- Factors, Multiples & Primes
- Basic Algebra
- Substitution & Formula

1b
Higher Set 1, 2
- Fractions
- Ratio
- Proportion
- Standard Form
- Index Laws
- Expand & Simplify

Crossover Set 3, 4, 5
- Estimation
- Percentages
- Use of a calculator
- Fractions

Foundation Set 6, 7
- Drawing & Interpreting Charts
- Fractions
- Percentages
- Properties of Shapes & Angles

2a
Higher Set 1, 2
- Factorising
- Solving Equations
- Rearranging Equations
- Averages
- Inequalities
- Frequency Diagrams

Crossover Set 3, 4, 5
- Ratio
- Proportion
- Standard Form
- Index Laws

Foundation Set 6, 7
- Perimeter
- Area
- 3D Shapes
- Measuring
- Probability

2b
Higher Set 1, 2
- Straight Line Graphs
- Quadratic & Cubic Graphs
- Speed, Distance, Time
- Pythagoras Theorem
- Trigonometry

Crossover Set 3, 4, 5
- Expand & Simplify
- Factorising
- Solving Equations
- Rearranging Equations

Foundation Set 6, 7
- Two-Way Tables
- Frequency Trees
- Venn Diagrams
- Product of Primes
- Multiples in Context
- Best Value

3a
Higher Set 1, 2
- Angles
- Probability
- Constructions
- Circles, Arcs & Sectors
- Surface Area & Volume

Crossover Set 3, 4, 5
- Averages
- Inequalities
- Frequency Diagrams
- Scatter Graphs

Foundation Set 6, 7
- Exchange Rates
- Rounding & Estimating
- Percentage
- Using a calculator

3b
Higher Set 1, 2
- Simultaneous Equations
- Direct & Inverse Proportion
- Congruence & Similar Shapes
- Transformations

Crossover Set 3, 4, 5
- Times Series
- Straight Line Graphs
- Catch up and revision

Foundation Set 6, 7
- Reverse Percentages
- Fractions
- Ratio
- Proportion
- Catch & revision

Assessment Point tests	**Week beginning 18th November** GCSE Paper 1 (Non-Calculator)	**Week beginning 16th March** GCSE Paper 2 (Calculator Allowed)	**Week beginning 22nd June** GCSE Paper 3 (Calculator Allowed)
Assessment point revision	See attached Revision List	See attached Revision List	See attached Revision List

Haydock High School Mathematics Department – Learning Overview

Year 10	1a	1b	2a	2b	3a	3b
	Higher Set 1, 2 • Indices • Surds • Algebra Recap • Simultaneous Equations **Crossover Set 3, 4, 5** • Standard Form • Indices • Algebra Recap • Measures **Foundation Set 6, 7** • Multiples in Context • Standard form • Indices • Algebra Recap • Measures	**Higher Set 1, 2** • Measures • Angles in Polygons • Congruence & Similarity • Percentages **Crossover Set 3, 4, 5** • Constructions & loci • Angles in Polygons • Congruence & Similarity • Percentages **Foundation Set 6, 7** • Constructions & loci • Angles in Polygons • Congruence & Similarity • Percentages • Best value	**Higher Set 1, 2** • Recurring Decimals • Upper & Lower Bounds • Probability • Rearrange Formula • Sequences **Crossover Set 3, 4, 5** • Probability • Venn Diagrams • Probability Trees • Simultaneous Equations **Foundation Set 6, 7** • Probability • Venn Diagrams • Probability Trees • Area & Perimeter	**Higher Set 1, 2** • Surface Area • Volume • Coordinate Geometry • Pythagoras • Trigonometry **Crossover Set 3, 4, 5** • Surface Area • Volume • Circles • Real Life Graphs **Foundation Set 6, 7** • Surface Area • Volume • Circles • Exchange Rates • Real Life Graphs	**Higher Set 1, 2** • Averages • Quadratic Equations • Iteration **Crossover Set 3, 4, 5** • Pythagoras • Trigonometry • Averages **Foundation Set 6, 7** • Pythagoras • Trigonometry • Averages	**Higher Set 1, 2** • Statistics • Cumulative Frequency • Box Plots • Histograms • Catch Up & Revision **Crossover Set 3, 4, 5** • Straight Line Graphs • Coordinate Geometry • Catch Up & Revision **Foundation Set 6, 7** • Straight Line Graphs • Quadratic & Cubic Graphs • Catch Up & Revision
Assessment Point tests	**Week beginning 11th November** **Focus** GCSE Paper 1 (Non-Calculator)		**Week beginning 10th February** **Focus** GCSE Paper 2 (Calculator Allowed)		**Week beginning 22nd June** **Focus** GCSE Paper 3 (Calculator Allowed)	
Assessment point revision	See attached Revision List		See attached Revision List		See attached Revision List	

Haydock High School Mathematics Department – Learning Overview

Year 11	1a	1b	2a	2b	3a	3b
	Higher Set 1X, 1Y • Histograms • Algebra Revision • Simultaneous Equations • Inequalities • Algebra Fractions • Growth & Decay **Crossover 2X, 2Y, 3X, 3Y** • Algebra Revision • Inequalities • Solving Equations **Foundation Set 4X, 4Y** • Algebra Revision • Solving Equations • Inequalities • Two-Way Tables • Frequency Trees • Product of Primes	**Higher Set 1X, 1Y** • Trigonometry Graphs • Cosine Rule • Sine Rule • Vectors **Crossover 2X, 2Y, 3X, 3Y** • Volume • Trigonometry • Vectors **Foundation Set 4X, 4Y** • Rounding • Estimating • Compound Interest • Vectors	**Higher Set 1X, 1Y** • Direct & Inverse Proportion • Non-Linear Graphs • Gradients & Rates of Change **Crossover 2X, 2Y, 3X, 3Y** • Compound Interest • Direct & Inverse Proportion • Angles & Bearings **Foundation Set 4X, 4Y** • Fractions • Ratio • Proportion • Angles & Bearings • Parallel Lines	**Higher Set 1X, 1Y** • Circle Geometry • Circle Theorems • Functions • Revision **Crossover 2X, 2Y, 3X, 3Y** • Ratio & Proportion • Transformations • Scatter Graphs • Pie Charts • Fractions • Revision **Foundation Set 4X, 4Y** • Use of calculator • Scatter Graphs • Pie Charts • Transformations • Revision	**Higher Set 1X, 1Y** • Algebra Proof • Congruence & Geometric Proof • Revision **Crossover 2X, 2Y, 3X, 3Y** • Revision **Foundation Set 4X, 4Y** • Revision	
Assessment Point tests	**Week beginning 30th September** GCSE Paper 3 (Calculator Allowed)		**Week beginning 25th November** **Mocks 1** Paper 1 (Non-Calculator) Paper 2 (Calculator Allowed) Paper 3 (Calculator Allowed)		**Week beginning 9th March** **Mocks** Paper 1 (Non-Calculator) Paper 2 (Calculator Allowed) Paper 3 (Calculator Allowed)	
Assessment point revision	See attached Revision List		See attached Revision List		All topics at GCSE	