

Year 8 Mathematics Curriculum Map 2017/2018

| Year 8 | Autumn Term 1 | Autumn Term 2 | Spring Term 1 | Spring Term 2 | Summer Term 1 | Summer Term 2 |
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| Year 8 Topics – δ (Delta) | | | | | | |
| | | | Textbook – KS3 Maths Progress δ (Delta) Two ISBN: 978-1-4479-6235-9 | | | |
| 8 Delta 8ab1 8cd1 | Unit 1 Factors & Powers (04/09/17) <ul style="list-style-type: none"> • Prime factor decomposition • Laws of indices • STEM: Powers of 10 • Calculating & estimating Unit 4 Real-life graphs (02/10/17) <ul style="list-style-type: none"> • Direct proportion • FINANCE: Interpreting financial graphs • Distance-time graphs • Rates of change • Misleading graphs | Unit 3 2D shapes and 3D solids (06/11/17) <ul style="list-style-type: none"> • Plans & elevations • Surface area of prisms • Volume of prisms • Circumference of a circle • Area of a circle • Cylinders • Pythagoras' theorem Unit 6 Fractions, decimals & percentages (04/12/17) <ul style="list-style-type: none"> • Recurring decimals • Using percentages • Percentage change • FINANCE: Repeated percentage change | Unit 10 Graphs (08/01/18) <ul style="list-style-type: none"> • Plotting linear graphs • The gradient • $y = mx + c$ • Parallel and perpendicular lines • Inverse function • STEM: Non-linear graphs Unit 8 Probability (05/02/18) <ul style="list-style-type: none"> • Comparing probabilities • Mutually exclusive events • Estimating probability • Experimental probability • Probability diagrams • Tree diagrams | Unit 2 Working with powers (12/03/18) <ul style="list-style-type: none"> • Simplifying expressions • More simplifying • Expanding a& factorising expressions • Substituting & solving Unit 6 Fractions, decimals & percentages (23/04/18) <ul style="list-style-type: none"> • Recurring decimals • Using percentages • Percentage change • FINANCE: Repeated percentage change | Unit 7 Constructions & loci (21/05/18) <ul style="list-style-type: none"> • Accurate drawings • Constructing shapes • Constructions 1 • Constructions 2 • Loci | Unit 9 Scale drawings and measures (25/06/18) <ul style="list-style-type: none"> • Maps & scales • Bearings • Scales & ratio • Congruent & similar shapes • Solving geometry problems |
| Year 8 Topics – ϑ (Theta) | | | | | | |
| | | | Textbook – KS3 Maths Progress ϑ (Theta) Two ISBN: 978-1-4479-6233-5 | | | |
| 8 Theta 8ab2 8cd2 8cd3 | Unit 1 number (04/09/17) <ul style="list-style-type: none"> • Calculations • Calculating with negative numbers • Powers & roots • Powers, roots & brackets • Multiples & factors Unit 5 Real-life graphs (09/10/17) <ul style="list-style-type: none"> • Conversion graphs • Distance-time graphs • Line graphs • Complex line graphs • STEM: Graphs of function • More real –life graphs | Unit 2 Area & volume (13/11/17) <ul style="list-style-type: none"> • Area of a triangle • Area of a parallelogram and trapezium • Volume of cubes & cuboids • 3D shapes • Surface area of cubes and cuboids • Problems and measures Unit 6 Decimals & ratio (11/12/17) <ul style="list-style-type: none"> • Ordering decimals and rounding • Place-value calculations • Calculations with decimals • Ratio & proportion with decimals • STEM: Using ratios | Unit 8 Calculating with fractions (15/01/18) <ul style="list-style-type: none"> • Adding & subtracting fractions • Multiplying fractions • Fractions, decimals & reciprocals • Dividing fractions • Calculating with mixed numbers | Unit 10 Percentages, decimals & fractions (19/02/18) <ul style="list-style-type: none"> • Fractions & decimals • Equivalent proportions • Writing percentages • Percentages of amounts • FINANCE: Solving problems Unit 10 Percentages, decimals & fractions (19/02/18) <ul style="list-style-type: none"> • Fractions & decimals • Equivalent proportions • Writing percentages • Percentages of amounts • FINANCE: Solving problems | Unit 3 Statistics, graphs & graphs (30/04/18) <ul style="list-style-type: none"> • Pie charts • Using tables • Stem & leaf diagrams • Comparing data • Scatter Graphs • FINANCE: Misleading graphs Unit 7 Lines & angles (04/05/18) <ul style="list-style-type: none"> • Quadrilaterals • Alternate angles and proof • Geometrical problems • Exterior & interior angles • Solving geometric problems | Unit 9 Straight-line graphs (02/07/18) <ul style="list-style-type: none"> • Direct proportion on graphs • Gradients • Equations of straight lines • STEM: Direct proportion problems |

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| Year 8 Topics – π (Pi) Textbook – KS3 Maths Progress π (Pi) Two ISBN: 978-1-4479-6233-5 | | | | | | |
| 8 Pi 8ab3 8cd4 | Unit 1 Number properties & calculations (04/09/17) <ul style="list-style-type: none"> • Adding & subtracting with large numbers • More calculations • Negative numbers • STEM: Writing ratios • Using ratios to solve problems • Multiplicative reasoning Unit 7 Number properties (09/10/17) <ul style="list-style-type: none"> • Squares, cubes & roots • Calculating with brackets & indices • LCM & HCF • Prime factor decomposition | Unit 2 Shapes & measures in 3D (13/11/17) <ul style="list-style-type: none"> • 3D solids • Nets of 3D solids • Surface area • Volume Working with measures Unit 5 Decimal calculations (11/12/17) <ul style="list-style-type: none"> • Adding & subtracting decimals • Multiplying decimals • Ordering & rounding decimals • STEM: Problem-solving with decimals | Unit 9 Fractions & percentages (15/01/18) <ul style="list-style-type: none"> • Comparing fractions • Fractions of amounts • Adding & subtracting fractions • Fractions & percentages • Calculating percentages • STEM: Percentages & proportion | Unit 8 Sequences (19/02/18) <ul style="list-style-type: none"> • Generating sequences • Extending sequences • Special sequences • Position-to-term rules • Finding the nth term Unit 4 Expressions & equations (19/03/18) <ul style="list-style-type: none"> • Simplifying expressions • Functions • Solving equations • Using brackets | Unit 3 Statistics (30/04/18) <ul style="list-style-type: none"> • Data collection sheets • Interpreting bar charts • Drawing bar charts • STEM: Pie charts Unit 6 Angles (04/05/18) <ul style="list-style-type: none"> • Measuring & drawing angles • Vertically opposite angles • Angles in triangles • Grouped data • Drawing triangles accurately • Designing nets | Unit 10 Probability (02/07/18) <ul style="list-style-type: none"> • The language of probability • Outcomes • Probability calculations • Experimental probability • FINANCE: Comparing probabilities |