



PROPORTIONAL REASONING

- Expressing quantities using ratios
- Share amounts in a ratio

ALGEBRA

- Algebraic notation
- Simplify by adding and multiplying terms
- Substitution
- Straight line graphs
- Simple linear equations
- Linear sequences (intro to nth term)

NUMBER

- Ordering integers and decimals
- Fraction, decimal and % equivalence
- BIDMAS
- Powers and roots
- Add, subtract fractions
- Simple %, % change
- Rounding

Starter Pack Baseline Test



GEOMETRY

- Circles, Complex compound shapes
- Triangular and other prisms
- Angles in polygons
- Congruent shapes, Similar shapes
- Translations, Rotations, Enlargements
- Compass and ruler constructions

KS3

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PROPORTIONAL REASONING

- Relate ratios to fractions
- Apply ratios to lengths, areas and volumes, enlargement of shapes and map scales
- Direct and inverse proportion

ALGEBRA

- Expand brackets
- Factorisation
- Sequences (nth term)
- Linear equations with x on both sides
- Intro to gradient
- Intro to quadratic graphs

NUMBER

- LCM, HCF
- Laws of indices
- Intro to standard form
- Rounding-Significant fig
- Multiply, divide fractions
- Multipliers in %s

Junior Maths Challenge



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KS3

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KS3

STATISTICS AND PROBABILITY

- Discrete and continuous data
- Probability (Venn Diagrams, Combined events)
- Relative frequency
- Scatter graphs,



PROPORTIONAL REASONING

- Best buy, currency conversion
- Compound units
- Reverse %s
- Intro to simple and compound interest

NUMBER

- Laws of Indices (extension)
- Standard form
- Application of rounding and estimation to solve problems
- Intro to Surds

ALGEBRA

- Double bracket expansion and factorisation
- Rearrange formulae
- Equations in geometry
- Gradients (application)
- Quadratic graphs
- Linear inequalities
- Intro to simultaneous equations

STATISTICS AND PROBABILITY

- Frequency trees
- Probability trees
- Averages and range (frequency tables)
- Data in real life

NUMBER

- Error intervals
- Problems on Bounds
- Surds
- Negative and fractional indices

ALGEBRA

- 3 bracket expansion
- Further factorisation
- Rearrange complex formulae
- Linear simultaneous equations
- Parallel and perpendicular lines
- Quadratic sequences
- Non linear graphs
- Algebraic proof
- Algebraic functions

PROPORTIONAL REASONING

- Graphical and algebraic representation of direct/inverse proportion
- Simple and compound interest
- Gradients of non-linear graphs
- Area under graphs
- Iterations



Int Maths Challenge



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GCSE

FOUNDATION HIGHER

STATISTICS AND PROBABILITY

- Histograms, Cumulative frequency graphs and Box Plots, Compare distributions
- Conditional Probability

GEOMETRY

- Area/Surface area, perimeter, volume (complex problems)
- All 4 transformations
- Problems on Congruency and Similarity
- Angles and Circle Theorems 1
- Pythagoras and Trigonometry
- Plans and elevations, Loci

PROPORTIONAL REASONING

- Exponential growth and decay
- Iterations
- Equation of a tangent

GEOMETRY

- Circle theorems(Proof)
- Exact trig values
- Complex vectors problems
- Congruent triangles (Proof)

ALGEBRA

- Algebraic fractions
- Geometric progression
- Quadratic inequalities
- Trig graphs
- Transformations of graphs
- Roots, intercepts and turning points
- Complex simultaneous equations

NUMBER

- Surds (rationalise denominators)



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GCSE

Mock Exam 1

Targeted revision Exam skills

GEOMETRY

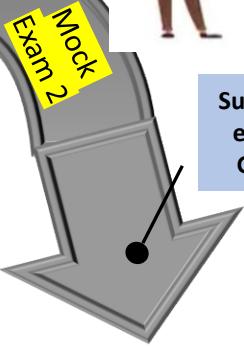
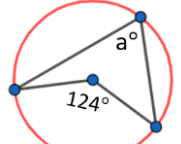
- Trigonometry in non-right angled triangles
- Circle Theorems 2
- Sectors of circles
- Vectors
- Spheres, pyramids, cones
- Fractional and negative scale factors in enlargements



Senior Maths Challenge

EDEXCEL Past exam papers followed by paper review

- Further Maths
- A Level Maths
- Core Maths



Summer exams GCSE



KS3 and KS4 MATHEMATICS Learning Journey