

Maths Revision



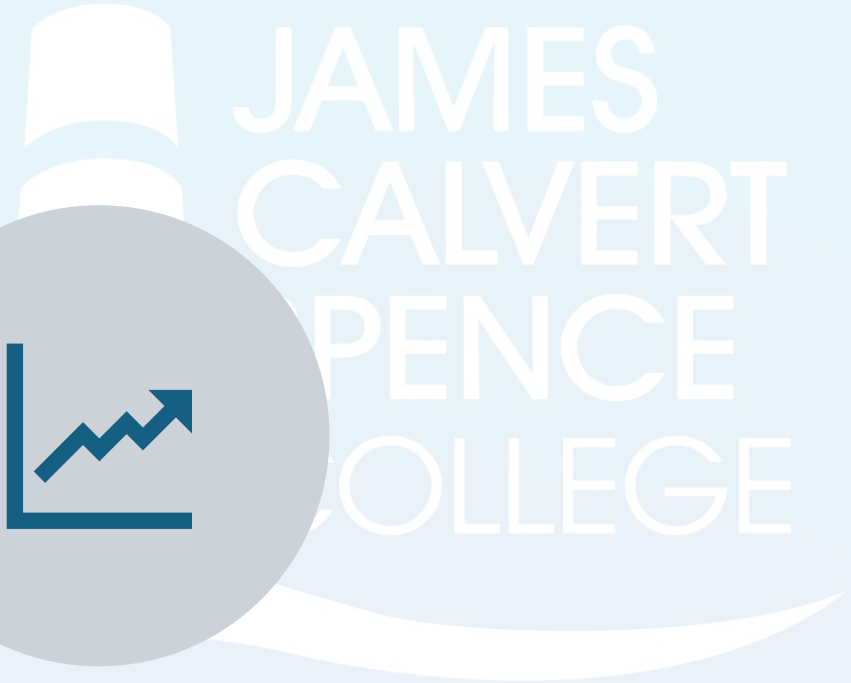
GCSE Maths



FOUNDATION



HIGHER



Foundation

Number

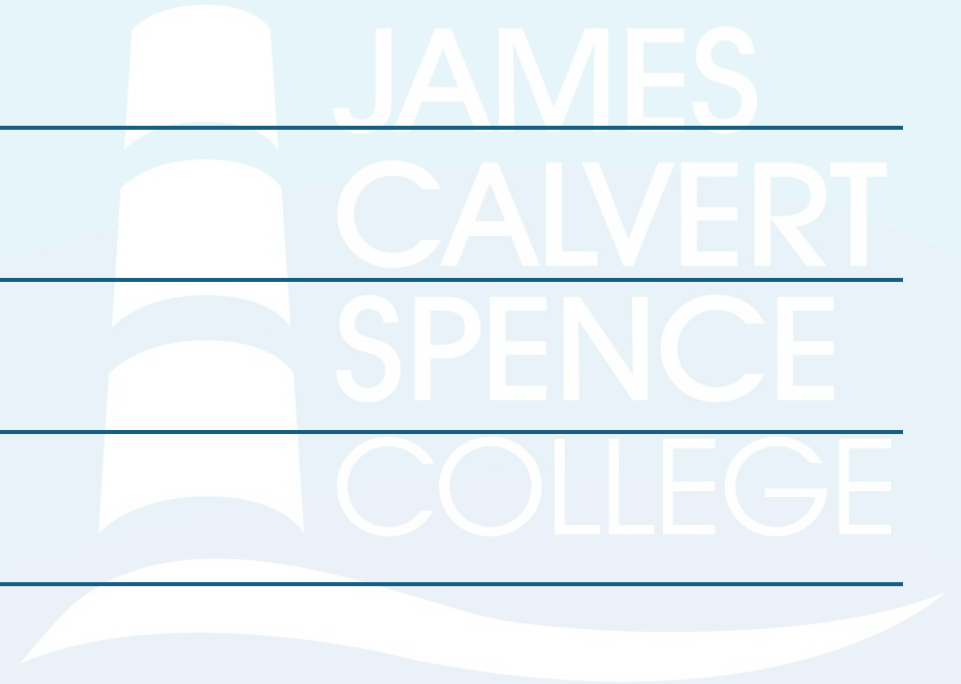
Algebra

Ratio, Proportion, Rates of change

Geometry and measures

Probability

Statistics



Higher

Number

Algebra

Ratio, Proportion, Rates of change

Geometry and measures

Probability

Statistics



Foundation - Number

Negative numbers

Fractions

Decimals

Place Value

Order of operations

Multiples, factors and primes

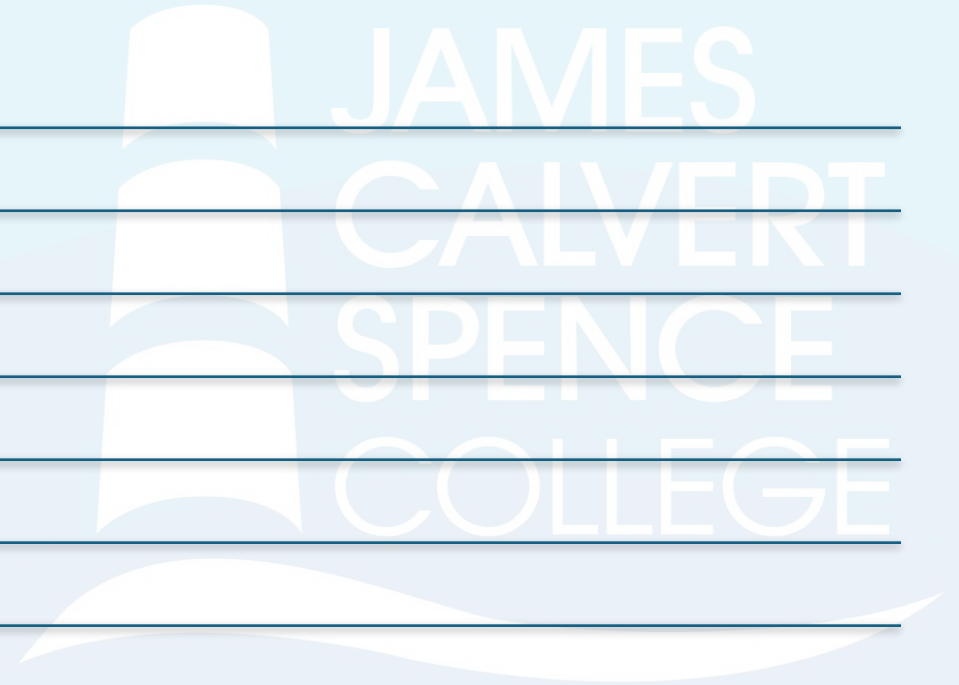
Indices

Standard Form

Estimation

Rounding

Error Intervals



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Fractions

Topic	Video	Worksheet	Answers
Writing, simplifying and ordering fractions	Maths Genie • Writing, Simplifying and Ordering Fractions	2-writing-simplifying-and-ordering-fractions.pdf	2-writing-simplifying-and-ordering-fractionsans.pdf
Fractions of an amount	Maths Genie • Finding a Fraction of an Amount	2-fractions-of-an-amount-ws.pdf	2-fractions-of-an-amountans.pdf
Fractions, decimals and percentages	Maths Genie • Fractions, Decimals and Percentages	2-fractions-decimals-and-percentages.pdf	2-fractions-decimals-and-percentagesans.pdf
Fractions (adding, subtracting, multiplying and dividing).	Maths Genie • Adding, Subtracting, Multiplying and Dividing Fractions	3-fractions.pdf	3-fractionsans.pdf

Decimals



Topic	Video	Worksheet	Answers
Addition of decimals	Adding Decimals Video – Corbettmaths	Decimals Addition Subtraction	Decimals-Adding-and-Subtracting-Answers.pdf
Subtraction of decimals	Subtracting Decimals Video – Corbettmaths	Decimals Addition Subtraction	Decimals-Adding-and-Subtracting-Answers.pdf
Multiplying decimals	Multiplying decimals Video – Corbettmaths	Decimals Multiplying Dividing	Multiplying-Dividing-Decimals-Answers.pdf
Ordering decimals	Ordering Decimals Video – Corbettmaths	Ordering Decimals	Ordering-Decimals-Answers.pdf

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Factors, multiples and primes



Topic	Video	Worksheet	Answers
Factors, multiples and primes	Maths Genie • Factors, Multiples and Primes	1-factors-multiples-and-primes.pdf	1-factors-multiples-and-primesans.pdf
Prime Factors, HCF and LCM	Maths Genie - Revision - The Highest Common Factor (HCF) and The Lowest Common Multiple (LCM)	4-HCF-and-LCM.pdf	4-HCF-and-LCMans.pdf

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Standard form



Topic	Video	Worksheet	Answers
Converting standard form	Maths Genie - Revision - Standard Form	5-standard-form.pdf	5-standard-formans.pdf
Adding numbers in standard form	Maths Genie - Revision - Standard Form	5-standard-form.pdf	5-standard-formans.pdf
Multiplying and dividing numbers in standard form	Maths Genie - Revision - Standard Form	5-standard-form.pdf	5-standard-formans.pdf
Standard form	Maths Genie - Revision - Standard Form	5-standard-form.pdf	5-standard-formans.pdf

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Higher - Number

Product rule for counting

Fractional Indices

Surds

Recurring decimals to fractions

Upper and Lower bounds of calculations



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Foundation - Algebra



Algebraic notation

Substitution

Collecting like terms

Expanding a single bracket

Expanding double brackets

Factorising into a single bracket

Factorising into double brackets

Index Laws

Changing the subject of a formula

Solve equations

Straight line graphs

Quadratic, cubic and reciprocal graphs

Simultaneous equations

Solve inequalities

nth term of linear sequences

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Solve equations



Topic	Video	Worksheet	Answers
Solving one- step equations	Maths Genie • Solving One Step Equations	3-solving-one-step-equations.pdf	3-solving-one-step-equationsans.pdf
Solving two-step equations	Maths Genie • Solving Equations	3-solving-equations.pdf	3-solving-equationsans.pdf

Straight line graphs



Topic	Video	Worksheet	Answers
Drawing straight line graphs	https://www.mathsgenie.co.uk/lineargraphs.php	https://www.mathsgenie.co.uk/resources/3-linear-graphs.pdf	https://www.mathsgenie.co.uk/resources/3-linear-graphsans.pdf
The equation of a straight line – gradient and intercept	https://corbettmaths.com/2013/05/29/finding-the-equation-of-a-straight-line/	https://corbettmaths.com/wp-content/uploads/2013/02/equation-of-a-line-pdf.pdf	https://corbettmaths.com/wp-content/uploads/2021/04/equation-of-a-line.pdf

Quadratic, cubic and reciprocal graphs

Topic	Video	Worksheet	Answers
Quadratic Graphs	https://www.mathsgenie.co.uk/quadratic-graphs.php	https://www.mathsgenie.co.uk/resources/5-quadratic-graphs-ws.pdf	https://www.mathsgenie.co.uk/resources/5-quadratic-graphsans.pdf
Cubic Graphs	https://corbettmaths.com/2016/08/07/cubic-graphs/	https://corbettmaths.com/wp-content/uploads/2013/02/cubic-graphs-pdf.pdf	https://corbettmaths.com/wp-content/uploads/2015/03/cubics-answers.pdf
Reciprocal Graphs	http://corbettmaths.com/2013/10/24/reciprocal-graphs/	https://corbettmaths.com/2018/04/04/reciprocal-graphs-2/	https://corbettmaths.com/2018/04/04/reciprocal-graphs-2/

Simultaneous equations



Topic	Video	Worksheet	Answers
Simultaneous equations	Maths Genie - Revision - Simultaneous Equations	5-simultaneous-equations.pdf	5-simultaneous-equationsans.pdf
Solving simultaneous equations graphically	Maths Genie - Revision - Solving Simultaneous Equations Graphically	5-solving-simultaneous-equations-graphically.pdf	5-solving-simultaneous-equations-graphicallyans.pdf

Solve inequalities



Topic	Video	Worksheet	Answers
Solving inequalities on a number line	Maths Genie - Revision - Writing and Solving Inequalities	4-inequalities.pdf	4-inequalitiesans.pdf
Solving inequalities	Maths Genie - Revision - Writing and Solving Inequalities	4-inequalities.pdf	4-inequalitiesans.pdf

nth term of linear sequences



Topic	Video	Worksheet	Answers
Types of sequences	https://youtu.be/2vZAiAHa2GY	4-sequences.pdf	4-sequencesans.pdf
Generating sequences	https://youtu.be/-6O73LQsEmw	4-sequences.pdf	4-sequencesans.pdf
Finding the Nth term	https://youtu.be/fifedKPyLLA	4-sequences.pdf	4-sequencesans.pdf
Sequences and finding the Nth term	https://youtu.be/Tv9ObyQOGAc	4-sequences.pdf	4-sequencesans.pdf

Higher - Algebra

Expanding and factorising harder expressions

Inverse and composite functions

Equations of straight lines

Completing the square

Quadratic formula

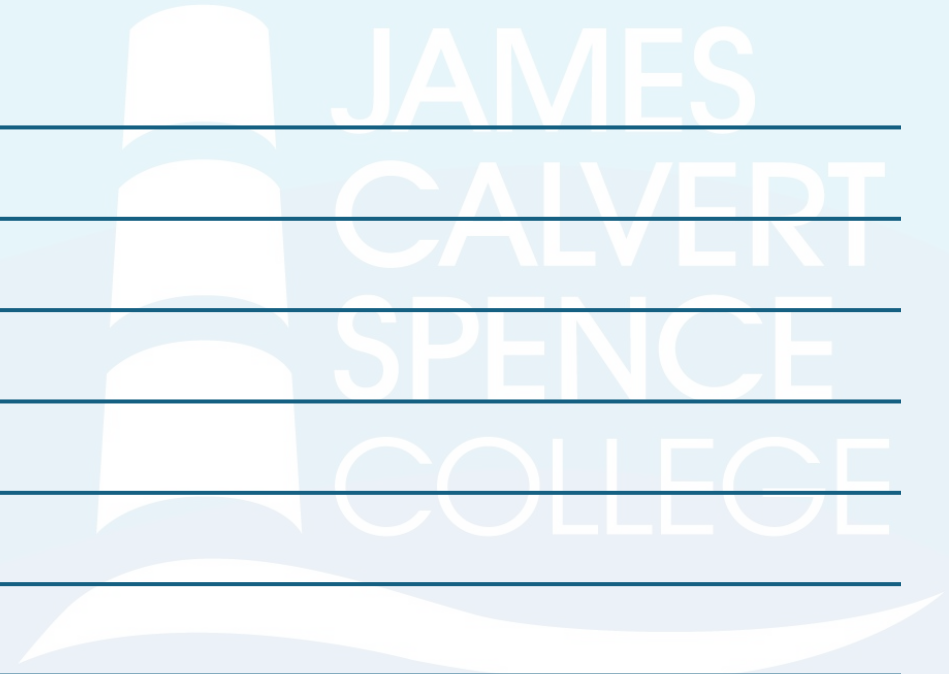
Trigonometric graphs

Transforming graphs

Equation of a circle

Simultaneous linear and quadratic equations

nth term of quadratic sequences



Expanding and factorising - harder

Topic	Video	Worksheet	Answers
Expanding triple brackets	https://corbettmaths.com/2013/12/27/expanding-three-brackets-video-15/	https://corbettmaths.com/wp-content/uploads/2023/01/Expanding-Three-Brackets-1.pdf	https://corbettmaths.com/wp-content/uploads/2024/05/Expanding-Three-Brackets-answers.pdf
Factorising harder quadratics	https://youtu.be/yBl-TZ1myf8	https://www.mathsgenie.co.uk/resources/7-factorising-harder-quadratics.pdf	https://www.mathsgenie.co.uk/resources/7-factorising-harder-quadraticsans.pdf

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Foundation - Ratio, Proportion, Rates of change

Speed, density and pressure

Ratio

Percentages

Direct and inverse proportion

Speed, density and pressure

Topic	Video	Worksheet	Answers
Speed, distance and time	https://corbettmaths.com/2016/01/01/speed-distance-time/	https://corbettmaths.com/wp-content/uploads/2013/02/speed-distance-time-pdf1.pdf	https://corbettmaths.com/wp-content/uploads/2016/02/speed-distance-time-answers.pdf
Density, mass and volume	https://corbettmaths.com/2016/06/07/density/	https://corbettmaths.com/wp-content/uploads/2023/04/Density.pdf	https://corbettmaths.com/wp-content/uploads/2023/04/Density-Answers.pdf
Pressure	https://corbettmaths.com/2016/07/28/pressure/	https://corbettmaths.com/wp-content/uploads/2023/09/Pressure.pdf	https://corbettmaths.com/wp-content/uploads/2023/09/Pressure-Answers.pdf

Ratio

Topic	Video	Worksheet	Answers
Writing and simplifying ratio	https://www.mathsgenie.co.uk/writing-simplifying-ratio.php	https://www.mathsgenie.co.uk/resources/3-writing-and-simplifying-ratio.pdf	https://www.mathsgenie.co.uk/resources/3-writing-and-simplifying-ratioans.pdf
Sharing in a ratio	https://www.mathsgenie.co.uk/ratio.php	https://www.mathsgenie.co.uk/resources/3-sharing-ratio.pdf	https://www.mathsgenie.co.uk/resources/3-sharing-ratioans.pdf

Percentages

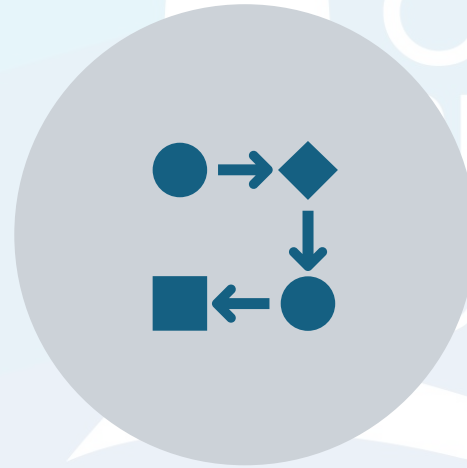
Topic	Video	Worksheet	Answers
Fractions, decimals and percentages	https://www.mathsgenie.co.uk/FDP.php	https://www.mathsgenie.co.uk/resources/2-fractions-decimals-and-percentages.pdf	https://www.mathsgenie.co.uk/resources/2-fractions-decimals-and-percentagesans.pdf
Percentages	https://www.mathsgenie.co.uk/percentages.php	https://www.mathsgenie.co.uk/resources/3-percentages.pdf	https://www.mathsgenie.co.uk/resources/3-percentagesans.pdf
Reverse percentages	https://www.mathsgenie.co.uk/reverse-percentages.php	https://www.mathsgenie.co.uk/resources/5-reverse-percentages.pdf	https://www.mathsgenie.co.uk/resources/5-reverse-percentagesans.pdf
Compound interest	https://www.mathsgenie.co.uk/compound-interest.php	https://www.mathsgenie.co.uk/resources/4-compound-interest.pdf	https://www.mathsgenie.co.uk/resources/4-compound-interestans.pdf

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Higher - Ratio, Proportion, Rates of change



ALGEBRAIC DIRECT AND
INVERSE PROPORTION



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Foundation – Geometry and measures

Angles

Area and
perimeter

Transformations

Constructions
and loci

Similar shapes

Congruency

Parts of a circle

Volume

Surface area

Plans and
elevations

Pythagoras

Trigonometry

Exact trig values

Vectors

Angles



Topic	Video	Worksheet	Answers
Angle facts	Maths Genie • Angles	2-angles.pdf	2-anglesans.pdf
Angles in Parallel lines	https://youtu.be/dur7iN0nwZs	https://www.mathsgenie.co.uk/resources/4-angles-in-parallel-lines.pdf	https://www.mathsgenie.co.uk/resources/4-angles-in-parallel-linesans.pdf
Angles in Polygons	https://www.mathsgenie.co.uk/angles-polygons.php	https://www.mathsgenie.co.uk/resources/4-angles-in-polygons.pdf	https://www.mathsgenie.co.uk/resources/4-angles-in-polygonsans.pdf

Area and perimeter



Topic	Video	Worksheet	Answers
Area and perimeter	https://www.mathsgenie.co.uk/area-perimeter.php	https://www.mathsgenie.co.uk/resources/2-area-and-perimeter-ws.pdf	https://www.mathsgenie.co.uk/resources/2-area-and-perimeterans.pdf
Area and circumference of circles	https://www.mathsgenie.co.uk/circles.php	https://www.mathsgenie.co.uk/resources/3-circles-area-and-circumference-ws.pdf	https://www.mathsgenie.co.uk/resources/3-circles-area-and-circumferenceans.pdf
Area of compound shapes	https://www.mathsgenie.co.uk/compound-shapes.php	https://www.mathsgenie.co.uk/resources/37_area-of-compound-shapes-ws.pdf	https://www.mathsgenie.co.uk/resources/37_area-of-compound-shapesans.pdf

Transformations



Topic	Video	Worksheet	Answers
Translation	https://youtu.be/leHYLEPe0ZE	https://www.mathsgenie.co.uk/resources/3-rotations.pdf	https://www.mathsgenie.co.uk/resources/3-rotationsans.pdf
Rotation	https://youtu.be/bS9naYK7Nw0	https://www.mathsgenie.co.uk/resources/3-reflections.pdf	https://www.mathsgenie.co.uk/resources/3-reflectionsans.pdf
Reflection	https://youtu.be/RAOcTmX7nS4	https://www.mathsgenie.co.uk/resources/3-enlargements.pdf	https://www.mathsgenie.co.uk/resources/3-enlargementsans.pdf
Enlargement	https://youtu.be/UUzhM0hAifA	https://www.mathsgenie.co.uk/resources/3-translations.pdf	https://www.mathsgenie.co.uk/resources/3-translationsans.pdf

Constructions and Loci



Topic	Video	Worksheet	Answers
Loci and construction	https://www.mathsgenie.co.uk/loci-and-construction.php	https://www.mathsgenie.co.uk/resources/4-loci-and-construction.pdf	https://www.mathsgenie.co.uk/resources/4-loci-and-constructionans.pdf

Similar shapes



Topic	Video	Worksheet	Answers
Similar shapes (lengths)	https://www.mathsgenie.co.uk/similar-shapes-length.php	https://www.mathsgenie.co.uk/resources/5-similar-shapes.pdf	https://www.mathsgenie.co.uk/resources/5-similar-shapesans.pdf

Congruency



Topic	Video	Worksheet	Answers
Congruent shapes	http://corbettmaths.com/2012/08/10/congruent-and-similar-shapes/	https://corbettmaths.com/2019/08/28/congruent-and-similar-shapes-practice-questions/	https://corbettmaths.com/2019/08/28/congruent-and-similar-shapes-practice-questions/
Congruent triangles	http://corbettmaths.com/2013/04/15/congruent-triangles/	https://corbettmaths.com/2018/04/04/congruent-triangles-2/	https://corbettmaths.com/2018/04/04/congruent-triangles-2/

Parts of a circle



Topic	Video	Worksheet	Answers
Parts of a circle	http://corbettmaths.com/2013/12/21/parts-of-the-circle-video-61/	https://corbettmaths.com/2019/08/28/parts-of-a-circle-practice-questions/	https://corbettmaths.com/2019/08/28/parts-of-a-circle-practice-questions/

Volume



Topic	Video	Worksheet	Answers
Volume of a prism	https://www.mathsgenie.co.uk/volume.php	https://www.mathsgenie.co.uk/resources/4-volume-of-a-prism.pdf	https://www.mathsgenie.co.uk/resources/4-volume-of-a-prismans.pdf

Surface area



Topic	Video	Worksheet	Answers
Surface Area	https://www.mathsgenie.co.uk/surfacearea.php	https://www.mathsgenie.co.uk/resources/4-surface-area.pdf	https://www.mathsgenie.co.uk/resources/4-surface-areaans.pdf

Plans and elevations



Topic	Video	Worksheet	Answers
Plans and elevations	https://www.mathsgenie.co.uk/plans-and-elevations.php	https://www.mathsgenie.co.uk/resources/4-plans-and-elevations.pdf	https://www.mathsgenie.co.uk/resources/4-plans-and-elevationsans.pdf

Pythagoras



Topic	Video	Worksheet	Answers
Pythagoras	https://www.mathsgenie.co.uk/pythagoras.php	https://www.mathsgenie.co.uk/resources/4-pythagoras.pdf	https://www.mathsgenie.co.uk/resources/4-pythagorasans.pdf

Trigonometry



Topic	Video	Worksheet	Answers
SOH CAH TOA (Trigonometry)	https://www.mathsgenie.co.uk/sohcahtoa.php	https://www.mathsgenie.co.uk/resources/5-SOHCAHTOA-ws.pdf	https://www.mathsgenie.co.uk/resources/5-SOHCAHTOAans.pdf

Exact trig values



Topic	Video	Worksheet	Answers
Exact Trig Values	https://www.mathsgenie.co.uk/exact-trig-values.php	https://www.mathsgenie.co.uk/resources/5-exact-trig-values-ws.pdf	https://www.mathsgenie.co.uk/resources/5-SOHCAHTOAans.pdf

Vectors



Topic	Video	Worksheet	Answers
Vectors	https://www.mathsgenie.co.uk/column-vectors.php	https://www.mathsgenie.co.uk/resources/5-vectors.pdf	https://www.mathsgenie.co.uk/resources/5-vectorsans.pdf

Higher – Geometry and measures

Proving congruency

Enlargement by a negative scale factor

Circle theorems

Similar shapes – length, area and volume

Trigonometry for non right angles triangles

Vector proof



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Trigonometry for non right angled triangles

Topic	Video	Worksheet	Answers
Sine Rule	https://www.mathsgenie.co.uk/sine-rule.php	https://www.mathsgenie.co.uk/resources/7-sine-rule.pdf	https://www.mathsgenie.co.uk/resources/7-sine-ruleans.pdf
Cosine Rule	https://www.mathsgenie.co.uk/cosine-rule.php	https://www.mathsgenie.co.uk/resources/7-cosine-rule.pdf	https://www.mathsgenie.co.uk/resources/7-cosine-ruleans.pdf
Area of a triangle – $\frac{1}{2} ab \sin C$	https://www.mathsgenie.co.uk/area-of-any-triangle.php	https://www.mathsgenie.co.uk/resources/7-area-of-any-triangle.pdf	https://www.mathsgenie.co.uk/resources/7-area-of-any-triangleans.pdf

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Foundation - Probability

Basic probability

Sample space diagrams

Relative frequency

Venn diagrams

Tree diagrams



Basic Probability

Topic	Video	Worksheet	Answers
Probability	https://www.mathsgenie.co.uk/probability.php	https://www.mathsgenie.co.uk/resources/2-writing-probability-and-the-probability-scale.pdf	https://www.mathsgenie.co.uk/resources/2-writing-probability-and-the-probability-scaleans.pdf
Basic probability	http://corbettmaths.com/2013/06/15/probability/	https://corbettmaths.com/2019/09/27/probability-textbook-exercise/	https://corbettmaths.com/wp-content/uploads/2015/03/probability.pdf
Not happening	http://corbettmaths.com/2013/05/15/probability-of-not-happening/	https://corbettmaths.com/wp-content/uploads/2013/02/probability-pdf.pdf	https://corbettmaths.com/wp-content/uploads/2015/03/probability.pdf
Scale	http://corbettmaths.com/2013/05/12/probability-scale/	https://corbettmaths.com/wp-content/uploads/2013/02/probability-pdf.pdf	https://corbettmaths.com/wp-content/uploads/2015/03/probability.pdf

Sample space diagrams



Topic	Video	Worksheet	Answers
Sample Space	http://corbettmaths.com/2013/06/18/sample-space-diagrams/	https://corbettmaths.com/2019/09/04/sample-space-practice-questions/	https://corbettmaths.com/2019/09/04/sample-space-practice-questions/

Relative frequency



Topic	Video	Worksheet	Answers
Relative Frequency	https://www.mathsgenie.co.uk/probability2.php	https://www.mathsgenie.co.uk/resources/4-probability-and-relative-frequency-ws.pdf	https://www.mathsgenie.co.uk/resources/4-probability-and-relative-frequencyans.pdf

Venn diagrams



Topic	Video	Worksheet	Answers
Probability from Venn Diagrams	https://corbettmaths.com/2016/08/07/venn-diagrams/	https://corbettmaths.com/wp-content/uploads/2013/02/venn-diagrams-pdf.pdf	https://corbettmaths.com/wp-content/uploads/2015/03/venn-diagrams-answers.pdf

Tree diagrams



Topic	Video	Worksheet	Answers
Probability Trees	https://www.mathsgenie.co.uk/probability-trees.php	https://www.mathsgenie.co.uk/resources/5-probability-trees.pdf	https://www.mathsgenie.co.uk/resources/5-probability-treesans.pdf

Higher - Probability

- Conditional probability



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Higher - Statistics

Histograms

Cumulative frequency

Box plots



Histograms

Topic	Video	Worksheet	Answers
Histograms	https://www.mathsgenie.co.uk/histograms.php	https://www.mathsgenie.co.uk/resources/7-histograms.pdf	https://www.mathsgenie.co.uk/resources/7-histogramsanswers.pdf

Cumulative frequency

Topic	Video	Worksheet	Answers
Cumulative Frequency	https://www.mathsgenie.co.uk/cumulative.php	https://www.mathsgenie.co.uk/resources/6-cumulative-frequency.pdf	https://www.mathsgenie.co.uk/resources/6-cumulative-frequencyans.pdf

Box Plots

Topic	Video	Worksheet	Answers
Box Plots	https://www.mathsgenie.co.uk/box-plots.php	https://www.mathsgenie.co.uk/resources/6-box-plots.pdf	https://www.mathsgenie.co.uk/resources/6-box-plotsans.pdf