

Year 10 End of Year Revision List

What can I use to revise?

- **Your new Sparx website!** This will have lots of questions and videos based on these topics
- **Corbett Maths** - <https://corbettmaths.com/contents/>
- **White Rose Maths videos** - <https://tinyurl.com/Yr10WRM>

Unit 1- Congruence , Similarity and Enlargement

- Explore areas and volumes of similar shapes (H)
- Solve mixed problems involving similar shapes (H)
- Understand congruence vs. similarity
- Use conditions for congruent triangles
- Prove triangles are congruent

Unit 2- Trigonometry

- Right-angled triangle ratios
- Sine, cosine, and tangent for sides and angles
- Pythagoras' Theorem
- Trigonometry in 3-D shapes (H)
- Area using $0.5ab\sin C$ (H)
- Sine and cosine rules (H)

Unit 3- Equations and Inequalities

- Solutions and forming equations
- Solving one-step, two-step, and complex equations and inequalities
- Number line and set notation for inequalities (H)
- Straight line graphs and solutions
- Representing inequalities graphically (H)
- Quadratic equations and inequalities (H)

Unit 4- Simultaneous Equations

- Solutions to pairs of linear equations
- Graphical and algebraic methods for solving
- Deriving related facts from equations

Unit 5- Simultaneous Equations

- Adjusting equations for solutions
- Forming equations from information
- Solving linear and quadratic simultaneous equations (H)
- Equations involving a third unknown (H)

Unit 6- Angles and Bearings

- Cardinal directions and bearings
- Scale diagrams and drawings
- Calculating bearings using angle rules, Pythagoras, and trigonometry
- Bearings problems with sine and cosine rules (H)



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Unit 7- Working with Circles

- Parts and fractional parts of a circle
- Arc length and sector area
- Circle theorems (H)
- Volume and surface area of cylinders, cones, and spheres
- Area and volume problems with similar shapes (H)

Unit 8- Vectors

- Representing, adding, and subtracting vectors
- Scalar multiplication
- Vector journeys and geometric proofs (H)
- Parallel vectors and collinear points (H)

Unit 9- Ratios and Fractions

- Comparing quantities and sharing in ratios
- Ratios linked with fractions, graphs, and scales
- Currency conversion and best buy problems
- Ratios in area and volume problems (H)

Unit 10- Percentages and Interest

- Converting and comparing fractions, decimals, and percentages
- Percentage calculations and changes
- Simple and compound interest
- Growth, decay, and iterative processes

Unit 11- Probability

- Adding, subtracting, and multiplying fractions
- Probabilities with equally likely outcomes and experimental data
- Probability tables, Venn diagrams, and trees
- Conditional probabilities (H)

Unit 12- Delving into Data

- Populations, samples, and stratified samples (H)
- Constructing and interpreting tables, charts, and diagrams
- Histograms, averages, time series, and box plots (H)
- Comparing distributions and using lines of best fit

Unit 13- Non- Calculator Methods

- Mental/written arithmetic
- Fraction arithmetic and exact answers
- Rational and irrational numbers (H)
- Surds and limits of accuracy
- Solving financial and multi-step problems

