Maths Foundation

www.mrbartonmaths.com (videos, notes, worksheets with answers, GCSE questions)

www.corbettmaths.com (videos, practice papers, worksheets, revision cards)

www.pythagorasandthat.co.uk (notes)

www.mymaths.co.uk (online lessons and homeworks with immediate feedback)

Year 10

- Percentages (writing a number as a percentage of another, percentages of an amount, increase/decrease, multipliers, compound interest, simple interest, depreciation, reverse percentages)
- Indices (square numbers and square roots, cube numbers and cube roots, using positive powers, laws of indices, zero indices,)
- Standard form (add, subtract, multiply, divide)
- Probability (basic probability problems, two way tables, tree diagrams, Venn diagrams, expectation, relative frequency)
- Statistics (mode, median, mean, including from a frequency table, range, scatter graphs,)
- Circumference and area of circles including length of an arc, area of a sector
- Volume of 3D shapes (use formulae for cone, sphere, cylinder)
- Measures (metric and imperial, standard units, speed, density, bounds/error intervals/ limits of accuracy)
- Pythagoras' Theorem
- Trigonometry (SOH CAH TOA, exact trig values)
- Quadratics (expanding, factorising, solving by factorising/ using the quadratic formula, DOTS, plotting graphs,)
- Polygons (angles in parallel lines, interior, exterior angles) – Did in Year 8 and 9
- Inequalities (solving, represent on a number line, graphical inequalities)
- Solving linear equations

Year 11

- Rearranging Formulae
- Trigonometry (sine rule, cosine rule,)
- Transformations (including combinations of transformations)
- Direct and Inverse Proportion (equations involving the constant k)
- Sequences (nth term of linear and quadratic sequences)
- Vectors
- Similar Shapes (1D, 2D, 3D)
- Linear Graphs (y = mx + c)
- Geometric progression (just need to recognise them)
- Congruence (SSS, SAS, ASA or AAS, RHS)
- Velocity-time graphs, area under a curve
- Loci, constructions and bearings
- Simultaneous Equations
- Ratio and Proportion (simplifying ratio, sharing ratio into a given amount best buy)
- Upper and Lower bounds

Prior knowledge

- Converting mixed numbers and improper fractions
- Converting fractions and decimals
- Product of prime factors
- Fraction of an amount (including going backwards)
- Mid-point of a line
- Expanding brackets and factorising linear expressions
- Converting units of area and volume
- Scale drawings and bearings
- Constructions/ Loci
- Area (triangle, parallelogram, trapezium, and with algebra)
- Compound area (often with circles)
- Plans and Elevations
- Ratio
- Distance-time graphs
- Pie charts