Mathematics – Year 11 - foundation

Topic	Resources
2D and 3D shapes	https://www.piximaths.co.uk/2D-and-3D-shapes
Angles	https://www.piximaths.co.uk/angles
Polygons	https://www.piximaths.co.uk/polygons
Drawing and measuring angles	https://www.piximaths.co.uk/angles
Constructions	https://www.piximaths.co.uk/constructions
Loci	https://www.piximaths.co.uk/loci
Angles at a point and on a line	https://www.piximaths.co.uk/angles
Angles in parallel lines	https://www.piximaths.co.uk/angles-in-parallel-lines
Angles in polygons	https://www.piximaths.co.uk/angles-in-polygons
Properties of triangles	https://www.piximaths.co.uk/triangles
Properties of quadrilaterals	https://www.piximaths.co.uk/quadrilaterals
Symmetry	https://www.piximaths.co.uk/symmetry
Circles	https://www.piximaths.co.uk/circles
Plans and elevations	https://www.piximaths.co.uk/plans-and-elevations
Reflections	https://www.piximaths.co.uk/reflections-and-symmetry
Rotations	https://www.piximaths.co.uk/rotations-and-symmetry
Translations	https://www.piximaths.co.uk/translations
Congruence and similarity	https://www.piximaths.co.uk/congruence-and-similairty
Column vectors	https://www.piximaths.co.uk/vectors
Enlargements	https://www.piximaths.co.uk/enlargements
Metric unit conversions	https://www.piximaths.co.uk/measurement
Maps and scale drawings	https://www.piximaths.co.uk/scales
Perimeter and area	https://www.piximaths.co.uk/perimeter-and-area
Circles	https://www.piximaths.co.uk/circles
Area of triangles	https://www.piximaths.co.uk/area
Area of parallelograms	https://www.piximaths.co.uk/area
Area of trapeziums	https://www.piximaths.co.uk/area
Surface area and volume	https://www.piximaths.co.uk/surface-area-and-volume

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Cones and spheres	https://www.piximaths.co.uk/cones
Pyramids	https://www.piximaths.co.uk/pyramids
Pythagoras Theorem	https://www.piximaths.co.uk/pythagoras-theorem
Trigonometry	https://www.piximaths.co.uk/trigonometry

	https://www.piximaths.co.uk/introduction-to-probability
Probability scale	
Relatiuve frequency	https://www.piximaths.co.uk/introduction-to-probability
Equally likely outcomes	https://www.piximaths.co.uk/venn-diagrams
Venn diagrams	https://www.piximaths.co.uk/tree-diagrams
Tree diagrams	https://www.piximaths.co.uk/mutually-exclusive-outcomes
Mutually exclusive outcomes	https://www.piximaths.co.uk/listing-outcomes
Listing outcomes	

Frequency tables	https://www.piximaths.co.uk/frequency-tables
Bar charts	https://www.piximaths.co.uk/bar-charts
Pie charts	https://www.piximaths.co.uk/pie-charts
Pictograms	https://www.piximaths.co.uk/pictograms
Line graphs	https://www.piximaths.co.uk/line-graphs
Averages	https://www.piximaths.co.uk/averages
Scattergraphs	https://www.piximaths.co.uk/scattgraphs

Recap year 9 work

Four rules
Definitions and terms
Prime numbers
HCF and LCM
Priority of operations
Inverse operations
Equivalent fractions
Calculations with fractions
Fractions of a quantity

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Recap year 10 work

Decimals and fractions
Addition, subtraction and multiplication of decimals
Division of decimals
Percentage conversions
Percentage calculations
Percentage change
Index notation
Calculation, estimation of powers and roots
Laws of indices
Standard form
Calculations with standard form
Exact calculations
Rounding
Estimation
Upper and lower bounds
Equivalent ratios
Division in a given ratio
Ratios and fractions
Solve ratio and proportion problems
Direct proportion
Inverse proportion
Growth and decay

Algebraic terminology and proofs
Collecting like terms in sums and differences of terms
Simplifying products and quotients
Multiplying out brackets
Factorising
Formulae algebraic expressions
Substitute numerical values into formulae and expressions
Change the subject of a formula
Recall and use standard formulae

Use kinematics formulae

Linear equations in one unknown
Quadratic equations

Simultaneous equations
Inequalities in one variable

Functions
Generate terms of a sequence
Special sequences
x- and y-coordinates
Graphs of equations and functions
Polynomial functions
Straight line graphs
Parallel and perpendicular lines
Graphs of real-world contexts
Gradients
2D and 3D shapes
Angles
Polygons
Polyhedra and other solids
Diagrams
Geometrical instruments
x- and y-coordinates
Perpendicular bisector
Angle bisector
Perpendicular from a point to a line
Loci
Angles at a point
Angles on a line
Angles between intersecting and parallel lines
Angles in polygons
Properties of a triangle
Properties of quadrilaterals
Symmetry

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Circle nomenclature
3-dimensional solids
Plans and elevations