

## Mathematics – Year 11 - Higher

Topic	Resources
Cubic graphs Reciprocal graphs Exponential graphs Trigonometric graphs Real life graphs Gradients Areas under graphs Equation of a circle	<a href="https://www.piximaths.co.uk/transformations-of-graphs">https://www.piximaths.co.uk/transformations-of-graphs</a> <a href="https://www.piximaths.co.uk/transformations-of-graphs">https://www.piximaths.co.uk/transformations-of-graphs</a> <a href="https://www.piximaths.co.uk/transformations-of-graphs">https://www.piximaths.co.uk/transformations-of-graphs</a> <a href="https://www.piximaths.co.uk/transformations-of-graphs">https://www.piximaths.co.uk/transformations-of-graphs</a> <a href="https://www.piximaths.co.uk/real-life-graphs">https://www.piximaths.co.uk/real-life-graphs</a> <a href="https://www.piximaths.co.uk/gradients">https://www.piximaths.co.uk/gradients</a> <a href="https://www.piximaths.co.uk/areas-under-graphs">https://www.piximaths.co.uk/areas-under-graphs</a> <a href="https://www.piximaths.co.uk/equations-of-circles">https://www.piximaths.co.uk/equations-of-circles</a>
Circle theorems	<a href="https://www.piximaths.co.uk/circle-theorems">https://www.piximaths.co.uk/circle-theorems</a>
Changing the subject of formula Algebraic fractions Rationalising surds Proof	<a href="https://www.piximaths.co.uk/changing-subject-of-a-formula">https://www.piximaths.co.uk/changing-subject-of-a-formula</a> <a href="https://www.piximaths.co.uk/algebraic-fractions">https://www.piximaths.co.uk/algebraic-fractions</a> <a href="https://www.piximaths.co.uk/surds">https://www.piximaths.co.uk/surds</a> <a href="https://www.piximaths.co.uk/rationalising-the-denominator">https://www.piximaths.co.uk/rationalising-the-denominator</a> <a href="https://www.piximaths.co.uk/proof">https://www.piximaths.co.uk/proof</a>
Vectors Geometric proof	<a href="https://www.piximaths.co.uk/vectors">https://www.piximaths.co.uk/vectors</a> <a href="https://www.piximaths.co.uk/proof">https://www.piximaths.co.uk/proof</a>
Growth and decay Rates of change in graphs Functions	<a href="https://www.piximaths.co.uk/growth-and-decay">https://www.piximaths.co.uk/growth-and-decay</a> <a href="https://www.piximaths.co.uk/rates-of-change">https://www.piximaths.co.uk/rates-of-change</a> <a href="https://www.piximaths.co.uk/functions">https://www.piximaths.co.uk/functions</a>
Recap work from year 9	Place Value

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Four operations  
Powers and roots  
Factors and multiples  
Prime factor decomposition  
HCF & LCM  
Rounding  
Reciprocals  
Standard form  
Indices  
Surds  
Simplifying Expressions  
Substitution  
Expanding - brackets  
Factorising - brackets  
Solving linear equations  
Sequences  
Inequalities  
Simple proof  
Two way tables  
Stem and leaf diagrams  
Bar charts  
Pie charts  
Scatter graphs  
Averages and range  
Fractions  
Percentages  
Proportion  
Ratio  
Angles and lines  
Parallel lines  
Triangles & quadrilaterals  
Congruence & similarity  
Polygons - angles in  
Pythagoras  
Trigonometry  
Equation of a straight line  
Real life graphs

## Mathematics – Year 11 - Higher

Linear graphs  
Quadratic, kinematic, cubic graphs  
Equation of a circle  
Rates of change  
Area under graphs

Recap year 10 work

Solving quadratic equations  
Inequalities  
Simultaneous equations  
Probability  
Tree diagrams  
Similarity & congruence in 2D and 3D  
Sine rule  
Cosine rule  
Pythagoras in 3D  
Trigonometry in 3D  
Trigonometric graphs  
Accuracy and bounds  
Frequency diagrams  
Histograms  
Averages from  
grouped data  
Cumulative frequency  
graphs  
Box plots  
Scattergraphs  
Time series graphs