

# Hebburn Comprehensive School

## Key Stage 4 Scheme of Learning Overview

### Mathematics Department

Foundation Tier		
Year 10		
Autumn	Spring	Summer
Basic Number Multiples and Factors Angles Scale Diagrams and Bearings Fractions Rounding Calculations with decimals Coordinates and linear graphs Collecting and representing data Sequences Perimeter and area Percentages Real life graphs Transformations	Circumference and area of circles Ratio and proportion Equations Probability Scatter graphs Indices Standard form Construction and loci Inequalities 2D representations of 3D shapes Calculating with percentages	Measures Statistical measures Probability Pythagoras' theorem Properties of polygons Volume Congruence and similarity Algebra: quadratics, rearranging formulae
Year 11		
Autumn	Spring	Summer
Fractions, decimals and percentages Algebra and graphs Statistics Trigonometry Growth and decay Direct and inverse proportion Quadratic graphs Simultaneous equations Sketching graphs	Transformations and Vectors Sequences, Functions and Graphs Mental Calculations and Checking Processing and Representing Data: Interpreting Results Fractions, Decimals and Percentages Equations, Formulae, Identities and Expressions Ratio and Proportion	Revision and exam preparation



## Higher Tier

### Year 10

Autumn	Spring	Summer
Basic Number Multiples and Factors Angles Scale Diagrams and Bearings Algebraic manipulation Rounding Fractions and decimals Coordinates and linear graphs Collecting and represent data Sequences Perimeter and area Volume Real life graphs Circumference and area of circles Basic percentages Ratio and proportion Solving equations	Basic probability Scatter graphs Indices Standard form Construction and loci Transformations Calculating with percentages 2D representations of 3D shapes Simultaneous equations Inequalities and quadratics Surds	Measures Statistical measures Growth and decay Congruence and similarity Properties of polygons Pythagoras' theorem Trigonometry Circle Theorem

### Year 11

Autumn	Spring	Summer
Numerical methods Vectors Probability Algebra: quadratics, rearranging formulae Sketching graphs Sine and cosine rules Further equations and graphs Equation of a circle Direct and inverse proportion Transforming functions Algebraic fractions	Gradients and rates of change Pre-calculus area under a curve Consolidation and exam technique	Revision and exam preparation

