



# Denton Community College

## Departmental Curriculum Map

**Subject: Maths**

**Year Group: Y11**



	Autumn 1	Autumn 1	Spring 1	Spring 2
<b>Topics</b>	Number and Ratio	Geometric Reasoning	Area and Volume	Algebra
<b>What will students learn during this unit?</b>	Place Value for decimals, measure and integers, ordering positive and negative integers and decimals, rounding, estimating, four rules of number, index notation, square and cube numbers, prime numbers, factors, multiplies, fractions of amounts, percentages of amounts, ratio notation, simplifying ratio, equivalent ratio. H - Surds + rationalising the denominator, fractional and negative indices H1, H2, F1 will do standard form	Solve problems involving angles. H1, H2, F1 will do Trigonometry. H1 and H2 will also learn Sine and Cosine Rule. H - apply and use circle theorems H1 - prove circle theorems	Interpret plans and elevations Use and apply circle definitions and properties Know and apply the formula for the area of a triangle, trapezium, parallelogram Find the volume of prisms (H - and cones spheres, H1 - frustums) H - find the area of a non right angled triangle	Iterative processes (H) Simplify expressions including expanding, factorising, with indices. Form and solve equations. Use coordinates and plot linear and quadratic graphs (H - recognise types of graphs) Straight lines (F1 parallel lines, H2 and H1 parallel and perpendicular lines)
<b>When will students be assessed?</b>	SSDD after each component of learning	SSDD after each component of learning	SSDD after each component of learning	SSDD after each component of learning
<b>How will students be assessed?</b>	SSDD (Same Surface, Different Depth) as a formative assessment.	SSDD (Same Surface, Different Depth) as a formative assessment.	SSDD (Same Surface, Different Depth) as a formative assessment.	SSDD (Same Surface, Different Depth) as a formative assessment.
<b>Key Vocabulary</b>	Integer Tenth Hundredth Significant figure Factor Multiple	Parallel Hypotenuse Exterior Interior Translate Rotate	Circumference Arc Radius Diameter Surface area Volume	Iteration Solve Factorise Linear Quadratic Turning point

	Prime Index Cube number Square number	Reflect Invariant Vector Congruent	Cross section Units Perpendicular height	Roots Function Composite Inverse
<b>Homework opportunities to broaden or deepen student knowledge</b>	Sparx Maths: Place Value Estimation Rounding Four rules of number Index notation Squares, Cubes and Roots Factors, Multiples and Primes Fractions of amounts Percentages of amounts Using ratio notation Simplifying a ratio Standard form (H) only: Simplifying surds Rationalising the denominator Fractional and Negative indices	Sparx Maths: Angle facts Trigonometry (H) only: Circle theorems Sine and Cosine rule	Sparx Maths: Plans and Elevations Area of 2D shapes Volume of prisms (H) only: Volume of sphere, cone and frustum Area of non right angled triangle	Sparx Maths: Simplifying expressions Expanding brackets Form and solve equations Coordinates Plot linear and quadratic graphs Finding the gradient and equation of a line (H) only: Iterative processes Finding the gradient of perpendicular lines
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