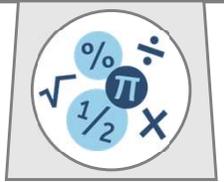# KS3 Mathematics

7.17, 8.15, 9.19, 9.20, 9.22 – In all these units, students must show **adaptability** to apply maths theories to practical constructions and drawings within polygons

7.04, 8.13, 9.04, 9.12 – John Venn demonstrated **Ambition** when he created a universal method to solve problems using set theory.

9.16 – **Pythagoras of Samos** showed great **determination** to prove the relationship between sides in a right-angled triangle thus leading to the Pythagoras theorem

9.16 – **Adaptability** has to be demonstrated to adapt the use of Pythagoras to other triangle relationships and real-life problems.

7.03 – Students of Y7 have to demonstrate **perseverance** to learn how algebra can be used in everyday life to problem solve.

Year 7

- 7.01 Numerical Skills
- 7.02 Order of Operations
- 7.03 Introduction to Algebra
- 7.04 Primes, Factors & Multiples
- 7.05 Expanding & Factorising 1
- 7.06 Addition & Subtraction
- 7.07 Perimeter
- 7.08 Mean
- 7.09 Multiplication & Division
- 7.10 Area of Triangles & Quadrilaterals
- 7.11 Fraction Manipulation
- 7.12 Adding & subtracting fractions
- 7.13 Comparing & ordering fractions
- 7.14 Fractions of amounts
- 7.15 Polygons
- 7.16 Angles
- 7.17 Coordinates
- 7.18 Time

Year 8

- 8.01 Powers & Roots
- 8.02 Prime Factorisation
- 8.03 Rounding
- 8.04 Fractions
- 8.05 Solving Equations 1
- 8.06 Angles in Parallel Lines
- 8.07 Circumference
- 8.08 Direct Proportion
- 8.09 FDP
- 8.10 Percentage calculations
- 8.11 Ratio 1
- 8.12 Area of Circles
- 8.13 Statistics 1
- 8.14 Averages & Spread
- 8.15 3D Visualisation
- 8.16 Volume

Year 9

- 9.01 Decimal Manipulation
- 9.02 Estimation & Limits of Accuracy
- 9.03 Related Calculations
- 9.04 HCF & LCM of large numbers
- 9.05 Fraction Calculations
- 9.06 Algebraic Manipulation
- 9.07 Index Laws
- 9.08 Standard Form
- 9.09 Expanding & Factorising 2
- 9.10 Forming Expressions & Substitution
- 9.11 Direct & Inverse Proportion
- 9.12 Probability 1
- 9.13 Solving Equations 2
- 9.14 Inequalities 1
- 9.15 Sequences
- 9.16 Pythagoras
- 9.17 Interior & Exterior Angles
- 9.18 Vectors 1
- 9.19 Transformations 1
- 9.20 Plans & Elevations

Key Stage 4

- 9.22 Surface Area
- 9.21 Arcs & Sectors