

- Character strengths
- Cross Curricular Links
- Statistics
- Geometry
- Number
- Algebra
- Ratio and Proportion
- Probability

Year 7 ← **Fluency, Reasoning and Problem Solving** → Year 11

# Maths Learning Journey

**Exams & Post 16 Study**

Mathematics for A-Level

Reasoning Revision & Communication Revision & Exam Techniques

- PPE**
- Multiplicative Reasoning
  - Geometric Reasoning
  - Algebraic Reasoning
  - Transforming & Constructing
  - Listing & Describing
  - Show That

Prove that  $(n+1)^2 - (n-1)^2$  is always a multiple of n.



Integrity and Resilience

Reflection PPE Using Number Delving into Data

- Gradients & Lines
- Non Linear Graphs
- Using Graphs
- Expanding & Factorising
- Changing the Subject
- Functions



- Data Representation
- Non Calculator Methods
- Number & Sequences
- Indices & Roots



**Question**  
What type of maths is best for business?

**Proportion & Proportional Change**

Confidence and Respect

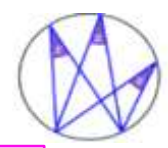
Reasoning with Data Reflection Similarity Developing Algebra Geometry

**Question**  
How does what your learning link to prior and future learning?

**Construction & Trigonometry**



- Congruence, Similarity & Enlargement
- Trigonometry
- Representations, Equations & Inequalities
- Simultaneous Equations

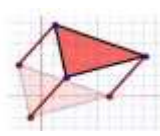


- Angles & Bearings
- Working with Circles
- Vectors
- Ratio & Fractions
- Percentages & Interest
- Probability

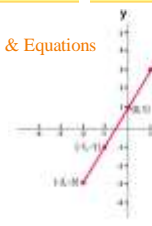
Motivation and Self-Discipline

Reasoning with Geometry Reasoning with Algebra Reasoning with Proportion Reasoning with Number

- Construction
- Trigonometry
- Working with Data
- Probability



- Expressions, Formulae & Equations
- Graphs
- Real Life Graphs
- Transformations
- Prisms



- Fractions
- Powers and Indices
- Accuracy
- Percentages
- Ratio & Proportion
- Using Measures

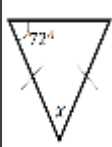


Reflection Reasoning with Geometry

Open Mindedness and Courage

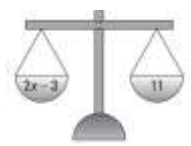
Direct Number & Fractional Thinking Algebraic Techniques Developing Geometry Graphs & Construction

**Question**  
When am I ever going to use this?



Reflection Geometric Reasoning

- Indices
- Expressions & Formulae
- Equations
- Working with 2D Shapes
- Properties of 3D Shapes



- Sequences
- Graphs
- Construction
- Calculations
- Negative Numbers
- Fractions

**Question**  
How is the golden ratio used in everyday life?

- Percentages
- Multiplicative Reasoning
- Working with Data
- Circles
- Pythagoras Theorem

Curiosity and Compassion

Proportional Reasoning Delving into Data Application of Number Algebraic Thinking Representations

- Ratio & Proportion
- Measurements
- Area
- Angles

**Question**  
Where else is data used?



- Fractions
- Place Values & Rounding
- Working with Decimals
- Investigation with Data
- Percentages

**Question**  
Who is Leonardo Bonacci?



- Sets and Probability
- Coordinates & Transformations
- Types of Number with Perimeter
- Using Letter Symbols
- Sequences



We aim to develop key mathematical concepts for students to apply in everyday life.  
Central to our mathematics curriculum is the development of mathematical Fluency, Reasoning and Problem Solving.