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

RESPECT SELF-DISCIPLINE
MOTIVATION RESILIENCE
INTEGRITY COURAGE
OPEN-MINDEDNESS
CONFIDENCE
COMPASSION CURIOSITY

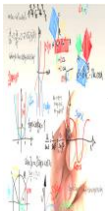
Aylesford School
COURAGE CONFIDENCE CHARACTER

Year 7 — Fluency, Reasoning and Problem Solving — Year 11

Maths Learning Journey

Reasoning | Revision & Communication | Revision & Exam Techniques

Exams & Post 16 Study

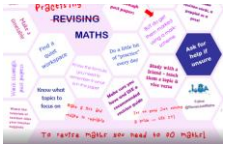


PPE
- Multiplicative Reasoning
- Geometric Reasoning
- Algebraic Reasoning
- Transforming & Constructing
- Listing & Describing
- Show That

Algebra

Prove that $(n + 1)^3 - (n + 1)^2$ is always a multiple of n.

PPE



Mathematics for A-Level

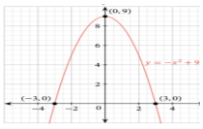
Graphs

Integrity and Resilience

YEAR 11

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

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

Confidence and Respect

PPE

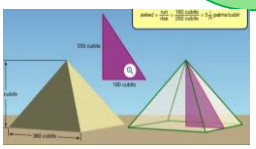
Reflection | Similarity | Developing Algebra | Geometry

YEAR 10

Reasoning with Data

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

Construction & Trigonometry



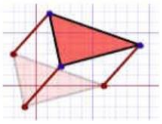
- Congruence, Similarity & Enlargement
- Trigonometry
- Representations, Equations & Inequalities
- Simultaneous Equations

Motivation and Self-Discipline

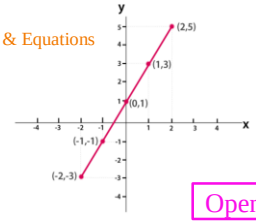
Reasoning with Geometry | Reasoning with Algebra | Reasoning with Proportion | Reasoning with Number

YEAR 9

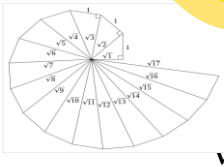
- Construction
- Trigonometry
- Working with Data
- Probability



- 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

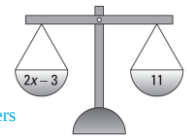
Question
When am I ever going to use this?

Proportional Reasoning

YEAR 8

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

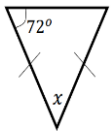
- Sequences
- Graphs
- Construction
- Calculations
- Negative Numbers
- Fractions



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

Question
How is the golden ratio used in everyday life?

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



Reflection

Geometric Reasoning

Curiosity and Compassion

- Ratio & Proportion
- Measurements
- Area
- Angles

Proportional Reasoning | **Delving into Data** | **Application of Number** | **Algebraic Thinking** | **Representations**

YEAR 7

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

Question
Where else is data used?

Question
Who is Leonardo Bonacci?

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

We aim for our young mathematicians to leave their secondary mathematical education at the Aylesford School, as confident mathematical problem solvers, mathematically equipped to face the challengers of everyday life, and both further and higher education.
Central to our mathematics curriculum is the development of mathematical Fluency, Reasoning and Problem Solving: