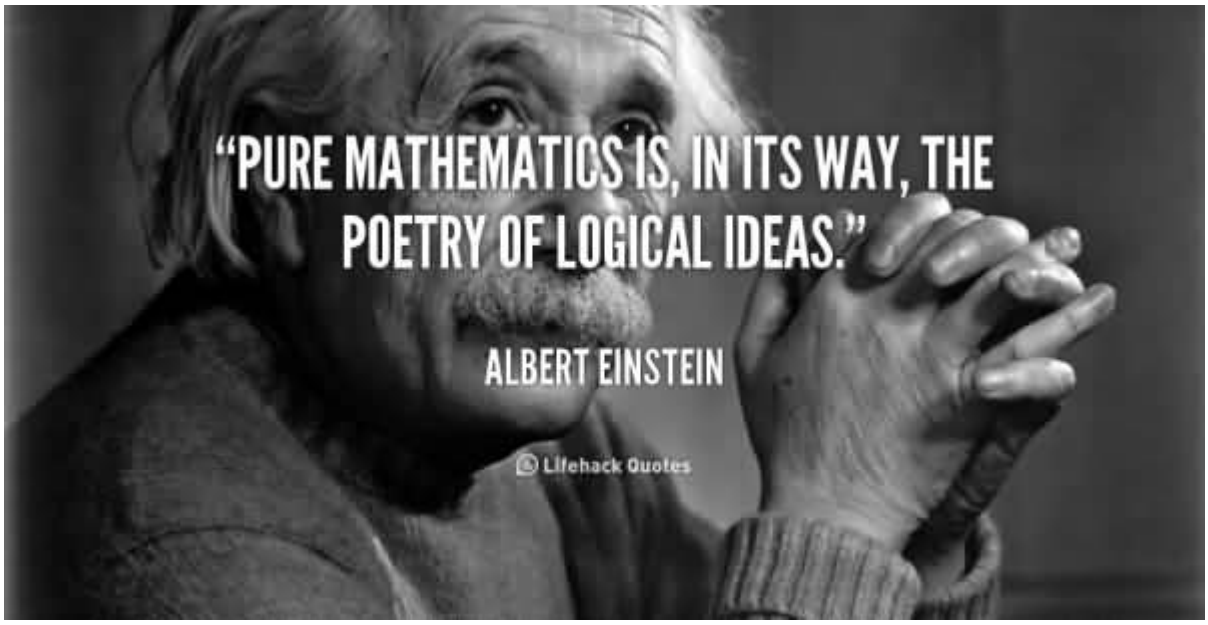
Curriculum Statement: Mathematics



Curriculum Vision

Prepare students to reason mathematically and become fluent in the fundamentals of mathematics through varied and frequent practice; increasing in complexity over time.

At all levels, students are provided with opportunities to behave mathematically. The emphasis is on empowering students to notice, make connections, explain, justify, prove and apply their knowledge.

Intent – our curriculum is designed to support and challenge our students through the following overarching curriculum topics:

- Key stage 3 & 4:

- Analysing and displaying data
- Numeracy skills
- Equations, functions and formulae
- Geometrical reasoning
- Graphical skills

- Key stage 5

Pure mathematics

- Calculus
- Coordinate-geometry
- Numerical methods
- Algebraic manipulation
- Trigonometry

Statistics

- Probability distributions
- Measures of location and spread
- Correlation
- Hypothesis testing

Mechanics

- Acceleration
- Connected particles
- Moments
- Kinematic

Curriculum features

Implementation

Making connections between topics

Spaced retrieval and interleaving of knowledge

Structured medium term planning, scaffolding through topics

Applying knowledge to problems

Impact – an "n"-angulation of the following n assessment strategies:

- Use of mini whiteboards
- Whole class and targeted questioning
- Prior knowledge checks
- Exit tickets
- Knowledge organisers
- Purposeful practise
- Evidence of improvement tasks
- Formal assessments

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