**AUTUMN TERM**

- Deeper thinking starters using problem solving questions and variety. Full year.
- Data: Analysing, averages and displaying.
- Number: Negatives, factors, factor trees, multiples and types of.
- Finance: Time and Money.
- Algebra: Expressions, functions, formulae and substitution.
- STEM: Units (Science).
- Shape: Decimals, area, perimeter and measure.
- Maths enrichment club.
- Maths Project: Product Wars.
- Problem Solving: Value for Money.
- Great mathematics: Egyptian numbers and their multiplication system (History).
- KS3 Numeracy/literacy. Halloween murder mystery. Twelve days of Christmas.
- Recall, assessment and review.

**SPRING TERM**

- Number: Fractions and percentages.
- Data: Probability and outcomes.
- EFIT January 2023
- Ratio: Sharing and proportionality.
- Finance: Expected Outcome.
- Maths Project: Alien Invasion
- Problem Solving: Holidays.
- Great mathematics: Number systems through history including binary and hexadecimal
- Careers: Product development cycle (car).
- Royal Institute Lecture. The curious incident of the never-ending number. 2006 Pt1.
- KS3 Numeracy. Easter maths challenge.
- Recall, assessment and review.

**SUMMER TERM**

- Shape:  Lines and angles in polygons.
- STEM: Calculating Angles (Science).
- Algebra: Sequences, graphs and coordinate geometry.
- Shape: Transformations.
- Maths Project: Water Availability.
- Problem Solving: Recipes.
- Great mathematics: Platonic solids (Science).
- Royal Institute Lecture. The story of the elusive shapes. 2006 Pt2.
- KS3 numeracy activity. Misleading data.
- Recall, assessment and review.

**AUTUMN TERM**

- Deeper thinking starters using problem solving questions and variety. Full year.
- Number: Developing indices and calculations.
- Shape: Area and volume, of 2d and 3d shapes.
- Data: Graphs and charts including misleading information.
- STEM: Real Life Graphs (Science).
- Algebra: Equations and expressions.
- Maths enrichment club.
- Maths Project: Keeping Pizza Hot.
- Great mathematics: Egyptian fractions (History).
- Problem Solving: Meters and Bills.
- Royal Institute Lecture. The secret of the winning streak. 2006 Pt3.
- KS3 Numeracy. Christmas challenge.
- Recall, assessment and review.

**SPRING TERM**

- Number and ratio: Graphs, line, real life and curved.
- Robotics. January 2023.
- Number and ratio: Decimals, rounding and developing ratio.
- Shape: Lines and angles in polygons.
- STEM: Using Ratios (Science).
- Problem Solving: Drawing diagrams.
- Maths Project: My Music.
- Great mathematicians: Florence Nightingale and her work on polar charts and comparative pie charts. (Geography, history, science and RE).
- Careers: Product development cycle (car).
- Royal Institute Lecture. The case of the uncrackable code. 2006 Pt4.
- KS3 Numeracy. Easter challenge.
- Recall, assessment and review.

**SUMMER TERM**

- Number: Fractions.
- UKMT Challenge.
- Algebra and shape: Graphs, gradients and equations.
- Number and ratio: percentage, decimal and fraction relationships.
- STEM: Direct Proportion (Science).
- Finance: Solving Problems. Misleading Graphs.
- Maths Project: Olympics.
- Great mathematicians: Alan Turing code breaking (History, IT and Re).
- Problem Solving: DIY
- Royal Institute Lecture. The quest to predict the future. 2006 Pt5.
- KS3 Numeracy. Crypto currency.
- Recall, assessment and review.

**AUTUMN TERM**

- Deeper thinking starters using problem solving questions and variety. Full year.
- Number: Indices and standard form calculations.
- Algebra: Expressions, solving equations, formulae and substitution.
- Data: Dealing with data, averages, analysis and comparing.
- Shape and algebra:  Multiplicative reasoning, enlargement, percentage change, compound measures and direct/inverse proportion.
- Maths project Foundation: Sun dials.
- Maths project Higher: Speed Cameras.
- Great mathematician: Fibonacci sequences and introduce the golden ratio (History, Art, Design and Science).
- Royal Institute Lecture. How to get lucky. 2019 Pt1.
- KS3 Numeracy. Christmas challenge.
- Recall, assessment and review.

**SPRING TERM**

- Shape and ratio: Constructions, drawings and using scale.
- Algebra and ratio: Sequences, inequalities, equations and proportion.
- Shape and number: Pythagoras. Perimeter, area and volume of circles and prisms. Errors and bounds.
- Maths project Foundation: Reducing Road Accidents.
- Maths project Higher: You Reckon?
- Great mathematician: Pythagoras, his Pythagorean triples and irrational numbers (History).
- Careers: Product development cycle (car).
- Royal Institute Lecture. How to bend the rules. 2019 Pt2.
- KS3 Numeracy. Easter problem solving.
- Recall, assessment and review.

**SUMMER TERM**

- Algebra and shape: $y = mx + c$, simultaneous equations, quadratics and other curved graphs.
- Data: Probability, experimental and theoretical. Two way tables and Venn diagrams.
- Shape, number and ratio: Congruence and similarity. Trigonometry finding angles and lengths.
- Maths project Foundation: Save The Kangaroo.
- Maths project Higher: Mission Rainforest.
- Great mathematician: Waclaw Sierpinskis' triangles and fractal theory (Geography).
- Royal Institute Lecture. How can we all win? 2019 Pt3.
- KS3 Numeracy. Financial awareness.
- Recall, assessment and review.

**BUILDING EXCEPTIONAL YOUNG MEN**