Mathematics CURRICULUM JOURNEY

NOTTINGHAM UNIVERSITY SAMWORTH ACADEMY

Year 11

- Graphs
  - Gradients & lines
  - Using graphs
  - Non – linear graphs
- Algebra
  - Functions
  - Expanding and Factorising
  - Changing the subject
- Reasoning
  - Multiplicative reasoning
  - Algebraic reasoning
  - Geometric reasoning
- Reasoning
  - Transforming and constructing
  - Show that……
  - Listing and describing
- Using number
  - Indices and roots
  - Types of number
  - Non calculator methods

Year 10

- Data
  - Collecting, representing and interpreting data
- Proportional change
  - Percentages
- Geometry
  - Circles
- Developing Algebra
  - Simultaneous equations
- Similarity
  - Trigonometry
- Probability
- Ratios and fractions
- Vectors
- Angles and bearings
- Equations and inequalities
- Congruence

Year 9

- Reasoning with Algebra
  - Straight line graphs
  - Testing conjectures
  - Forming and solving equations
- Constructing in 2D and 3D
  - 3D shapes
  - Constructions and congruency
- Reasoning with Number
  - Numbers
  - Maths and money
  - Using percentages
- Reasoning with Geometry
  - Deduction
  - Pythagoras' theorem
  - Rotation and translation
- Reasoning with Proportion
  - Enlargement and similarity
  - Rates
  - Solving ratio & proportion problems
- Representations and Revision
  - Probability
  - Revision
  - Algebraic representation
- The data handling cycle
- Line symmetry and reflection
- Angles in parallel lines and polygons
- Number sense
- Fractions and percentages
- Indices
- Brackets, equations and inequalities
- Tables and probability
- Working in the Cartesian plane
- Multiplying and dividing fractions
- Ratio and scale

Year 8

- Reasoning with Data
  - Measures of location
- Developing Geometry
  - Area of trapezia and circles
- Developing Number
  - Standard index form
- Algebraic Techniques
  - Sequences
- Representations
  - Representing data
- Proportional Reasoning
  - Multiplicative change
- Sequences
- Equality and Equivalence
- Place Value
- Addition and subtraction
- Fractions and percentages of amounts
- Directed Number
- Constructing and measuring
- Developing number sense
- Prime numbers and proof

Year 7

- Algebraic Thinking
  - Understand and use algebraic notation
- Place Value and Proportion
  - FDP equivalence
- Applications of Number
  - Multiplication and division
- Directed Number & Fractional Thinking
  - Fractional thinking
- Lines and Angles
  - Geometric reasoning
- Reasoning with Number
  - Sets and probability