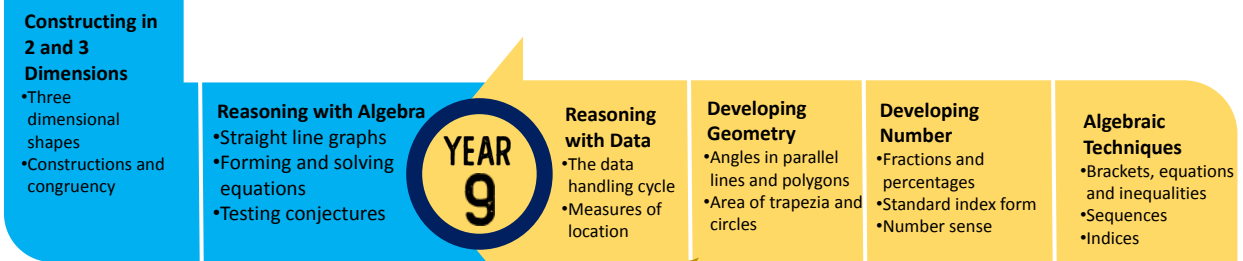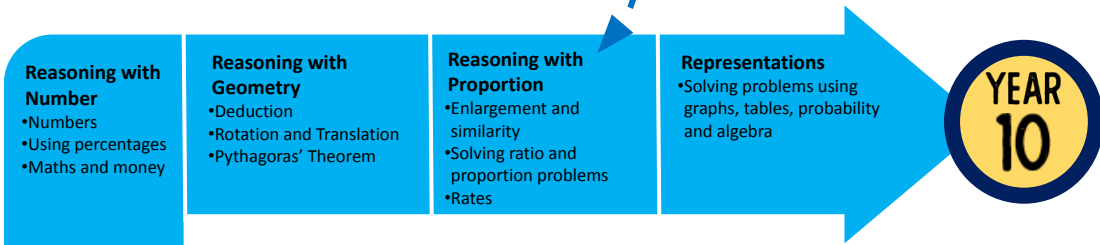# MATHEMATICS CURRICULUM MAP
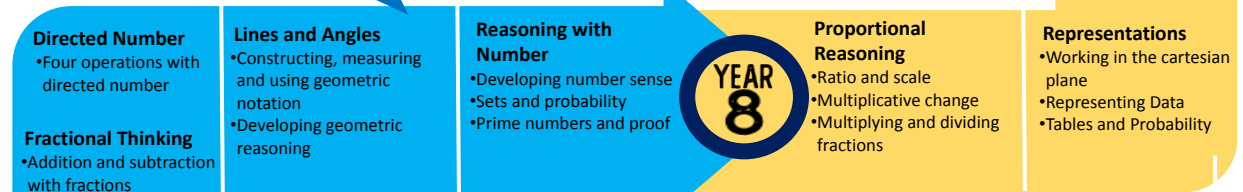# Key Stage 3

Assessment: Reasoning with Algebra, Constructing in 2 and 3 Dimensions, Reasoning with Number, Reasoning with Geometry

Reasoning with Number
- Numbers
- Using percentages
- Maths and money

Reasoning with Geometry
- Deduction
- Rotation and Translation
- Pythagoras' Theorem

Reasoning with Proportion
- Enlargement and similarity
- Solving ratio and proportion problems
- Rates

Representations
- Solving problems using graphs, tables, probability and algebra

YEAR 10

Constructing in 2 and 3 Dimensions
- Three dimensional shapes
- Constructions and congruency

Reasoning with Algebra
- Straight line graphs
- Forming and solving equations
- Testing conjectures

YEAR 9

Reasoning with Data
- The data handling cycle
- Measures of location

Developing Geometry
- Angles in parallel lines and polygons
- Area of trapezia and circles

Developing Number
- Fractions and percentages
- Standard index form
- Number sense

Algebraic Techniques
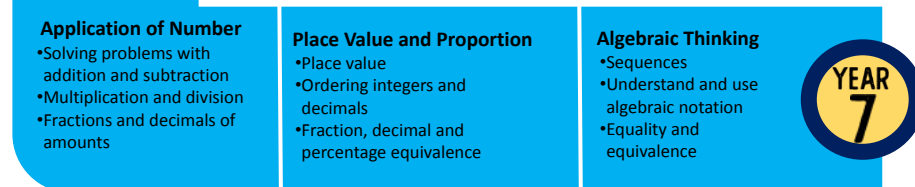- Brackets, equations and inequalities
- Sequences
- Indices

Assessment: Algebraic Thinking, Place Value & Proportion, Application of Number, Directed Number, Fractional Thinking.

Assessment: Proportional Reasoning, Representations, Algebraic Techniques, Developing Number.

Directed Number
- Four operations with directed number

Fractional Thinking
- Addition and subtraction with fractions

Lines and Angles
- Constructing, measuring and using geometric notation
- Developing geometric reasoning

Reasoning with Number
- Developing number sense
- Sets and probability
- Prime numbers and proof

YEAR 8

Proportional Reasoning
- Ratio and scale
- Multiplicative change
- Multiplying and dividing fractions

Representations
- Working in the cartesian plane
- Representing Data
- Tables and Probability

Assessment: Algebraic Thinking, Place Value and Proportion

Application of Number
- Solving problems with addition and subtraction
- Multiplication and division
- Fractions and decimals of amounts

Place Value and Proportion
- Place value
- Ordering integers and decimals
- Fraction, decimal and percentage equivalence

Algebraic Thinking
- Sequences
- Understand and use algebraic notation
- Equality and equivalence

YEAR 7

Assessments: Low stakes mini-assessments are completed and fed-back at the end of each sub-block of study – every 6-10 lessons.

FLUENCY
- Quick and accurate recall of key facts
- Knowledge/selection of appropriate techniques/strategies

⇨

REASONING
- Applying logical thinking to a situation to derive the correct problem solving strategy
- The bridge between fluency and problem solving.

⇨

PROBLEM SOLVING
- Finding a way to apply knowledge and skills to answer unfamiliar types of problems.