



# KS3 MATHS CURRICULUM MAP



**End of Year Assessment**

**KS4**

Assessment point

**Representation**

- Solving problems using graphs, tables and algebra



**Reasoning with proportion**

- Enlargement and similarity
- Rates
- Solving ratio and proportion problems



**Reasoning with number**

- Maths and money
- Numbers
- Using percentages

**Reasoning with geometry**

- Rotation and translation
- Pythagoras' theorem
- Deduction

Assessment point

**Reasoning with Algebra**

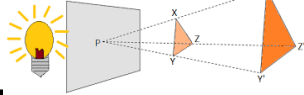
- Straight line graphs
- Testing conjectures
- Forming and solving equations

**Constructing in 2D and 3D**

- Constructions and congruency
- 3D shapes



**End of Year Assessment**



**YEAR 9**

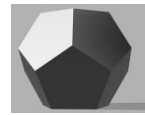
**Reasoning with data**

- The data handling cycle
- Measures of location

**Developing geometry**

- Line symmetry and reflection
- Angles in parallel lines and polygons
- Area of trapezia and circles

Assessment point



**Proportional Reasoning**

- Multiplying & dividing fractions
- Multiplicative change
- Ratio & Scale

**Algebraic techniques**

- Indices
- Sequences
- Brackets, equations & Inequalities

Assessment point

**Developing number**

- Fractions & percentages
- Number sense
- Standard index form

Assessment point



**End of Year Assessment**

**YEAR 8**

**Representations**

- Working in the Cartesian plane
- Tables & probability
- Representing data

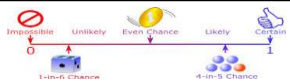
Assessment point

**Reasoning with Number**

- Developing number sense
- Sets & probability
- Prime numbers & proof

**Lines and angles**

- Developing geometric reasoning
- Constructing, measuring & using geometric notation



**PROOF**



**Application of number**

- Solving problems with multiplication & division
- Solving problems with addition & subtraction

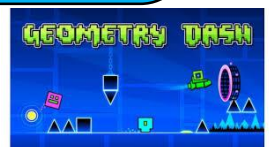
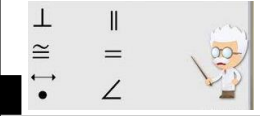
**Directed Number** Fraction & percentages of amounts

- Four operations with directed number

**Fractional Thinking**

- Addition & subtraction of fractions

Assessment point



**Place value & proportion**

- Fraction, decimal & percentage equivalence
- Place value & ordering integers & decimals

**Algebraic Thinking**

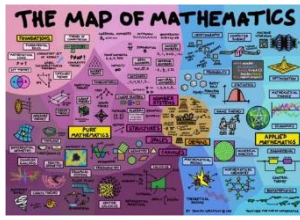
- Understand and use algebraic notation
- Equality & equivalence
- Sequences

**YEAR 7**





# KS4 MATHS CURRICULUM MAP



**TRIAL EXAMS**

### Reasoning

- Multiplicative
- Algebraic
- Geometric

### Exam communication

- Listing and describing
- Transforming and constructing
- Show that...

**REVISION & EXAMS**

**FURTHER STUDY**

Maths, Further Maths, Engineering, Physics, Biology, Chemistry, Psychology, Computer Science and many more all require a strong maths knowledge.

**CAREER PATHS**

Finance, Engineering, Actuary, Computing, programming, Web design, Accountancy, Researcher, Designer, Surveyor and many more.

**SKILLS**

Mathematical Literacy • Attention to Detail • Communication • Understanding • Literacy • Problem solving • Research • Logical Thinking and many more.

**INTEREST**

Computing • Programming • Finance • Understanding • Research • Design • Engineering

- Algebra**
- Functions
  - Expanding and factorizing
  - Changing the subject

**TRIAL EXAMS**

**Continued Targeted Support**

### Graphs

- Gradients & lines
- Using graphs
- Non-linear graphs

**YEAR 11**

Assessment point

### Using number

- Indices and roots
- Non calculator methods
- Types of number and sequences

### Delving into data

- Collecting, representing and interpreting data
- Expressing data
- Analyzing and reasoning with data

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

**End of Year Assessment**



### Geometry

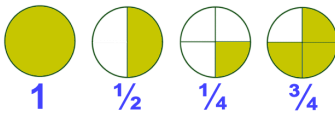
- Working with circles
- Vectors
- Angles and bearings

### Proportion and proportional change

- Percentages and interest
- Ratio and fractions
- Probability

Assessment point

Assessment point



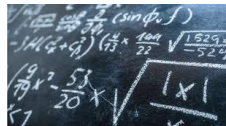
### Developing Algebra

- Representing solutions of equations & inequalities
- Simultaneous equations

### Similarity

- Congruence, similarity & enlargement
- Trigonometry

**YEAR 10**



$$e^{i\pi} + 1 = 0$$

