

- Character strengths
- Cross Curricular Links
- Statistics
- Geometry
- Number
- Algebra
- Ratio and Proportion
- Probability

Year 8 ← **Fluency, Reasoning and Problem Solving** → Year 9

Maths Learning Journey

TERM 6

Working with Data

- Averages recap
- Frequency tables and averages
- Pie charts

Pythagoras theorem

• Mean The 'normal' average
Add them up and divide by how many there are

• Median The 'middle' average
Put them in order and choose the middle one

• Mode The 'favourite' average
The most common or most popular value

• Using triangles

• Missing sides

$a^2 + b^2 = c^2$

YEAR 9

Independent Practice

Summer Break

TERM 5

Properties of 3D solids

- Properties of 3D solids
- Nets
- Surface area of a cuboid
- Volume of a cuboid

Multiplicative Reasoning **Percentages**

• Sharing in a ratio

• Proportion

• Conversion graphs

• Best buy problems

Question
Are Best Buys in supermarkets always best buys? Investigate

• Percentages recap

• Percentage increase/decrease

• Percentage change

TERM 4

2D Shapes

- Types of quadrilaterals
- Area recap
- Area of parallelogram
- Area of trapezium

Circles

• Circumference

• Area

• Quarter circles/semi circles

Question
What is meant mathematically by 'squaring the circle'?

TERM 3

Graphs

- Plotting linear graphs
- table of values
- Real life graphs

Construction **Angles**

• Read and draw bearing

• Scale drawings

• Construct triangle ruler and protractor

• Angles in parallel lines

• Interior and exterior angles

• Surface area of a cuboid

• Volume of a cuboid

Question
Take a look at any piece of architecture; can you identify parallel lines anywhere? Why are these so important?

TERM 2

Expressions and Formulae

- Simplifying expressions
- Substitution
- Expanding single brackets
- Factorising single brackets
- Rearranging formulas up to two steps

Equations **Sequences**

• One and two step equations recap

• Equations with an unknown both sides

• Equations with brackets

1) $5(x+3) - 4 = 10$

$5x + 15 - 4 = 10$

$5x + 11 = 10$

$5x = -1$ $x = -\frac{1}{5}$

• Finding an nth term

• Geometric sequences

Question
Why is being able to describe a sequence algebraically so important? Where might this be used?

TERM 1

Negative numbers

- Ordering negative numbers
- Add/subtract negative numbers
- Multiply/divide negative numbers

Fractions **Calculations**

• Fraction recap

• Multiply fractions

• Divide fractions

• Multiply/divide large numbers

• Multiply decimals

• Divide decimals

CROSS-CURRICULAR LINKS



TRIPS

