

# LONG TERM PLANS

## Year Overview

### Faculty: Mathematics

### YEAR 8

#### Autumn term

##### Half Term 1

###### More advanced number work:

Prime factorisation, sets.  
Primes, indices and roots; prime factorisation to find LCM, HCF, sets and unions  
calculate and evaluate expressions with rational numbers

##### Half Term 2

###### Algebraic expressions and equations:

Negative numbers (incl. fractions, decimals, indices); linear equations; expressions and equations with rational numbers.

#### Spring term

##### Half Term 1

###### Proportional reasoning

Ratio (equivalent, of a quantity), scale drawing and maps  
Convert between percentages and fractions and decimals;  
Percentage increase and decrease, finding the whole given the part and the percentages

##### Half Term 2

###### 2D geometry

Accurate drawing; find unknown angles; (including parallel lines); area and perimeter of composite shapes, area of parallelogram and trapezium; rounding ,significant figures; circumference and area of a circle; visualise and identify 3D shapes and their nets.

#### Summer term

##### Half Term 1

###### 3D geometry

Volume of cuboid, prism, cylinder, composite shape

##### Half Term 2

###### Statistics

Collecting and organising data; construction and interpretation of graphs, incl. histograms; interpret and compare statistical representations; mean, mode and median averages incl grouped data

