## Mathematics KS3: Year 8 (25/26)

#### **Constructions**

- · Accurate line segments and angles
- **Bisection**
- Loci and scale diagrams
- Map scale
- Triangle Congruence

#### **Compound Measures**

- · Converting units
- Density
- Pressure

3:2

**SUMMER** 

#### Inequalities Represent inequalities

- Writing inequalities
- Listing integers
- Solving inequalities

#### • Form inequalities: worded problems

## **Charts and Diagrams**

- Scatter graphs
- Pie charts
- Bar charts
- Venn Diagrams

#### **Averages**

- Averages and Range from a list
- Mode, median, range and mean from a table

#### **Formulae**

- Rearrange formula to change subject
- Rearrangement including factorising

#### **Angles**

· Angle rules

**SUMMER** 

3:1

- Interior and **Exterior angles**
- **Parallel Lines**

### **Standard Form**

- Types of number including powers
- Writing numbers in standard form
- Operations with Standard Form

## **Probability**

- List outcomes
- Theoretical probability
- Sample Space Diagrams
- Expected frequency 2 way tables

#### Percentages (calc)

- Percentage of an
- Increase by a percentage
- Percentage change
- Simple interest

## **SPRING**

2:2

#### **Pythagoras Theorem**

- **Using Pythagoras** Theorem
- Length of line segment

#### Graphs

- Coordinates and basic graphs
- Plotting linear graphs
- Identifying the gradient and y intercept from a

#### **Transformations**

- Scale factors
- Enlargement from a centre
- Column vectors
- Translation

#### Volume

- Cuboids
- Cylinders
- Missing Length Problems

## **Equations**

Solve 2 step **SPRING** equations

2:1

- Unknowns on both sides
- Form equations: worded problems

#### **Sequences**

- Arithmetic and Geometric Sequences
- Find the nth term
- Finding a given term of a sequence

#### **Powers and Roots**

- Know Squares, Cubes, and Roots
- **Index Notation**
- Use of Index Laws
- **Negative Indices**

## **AUTUMN** 1:2

- **Decimal Places**
- Significant figures
- Estimation by rounding

## **Rounding and Estimation**

- **Error Intervals**

#### **Fractions**

- Four operations with fractions
- Mixed numbers and Improper Fractions
- Fraction of an amount

#### Ratio

- Use ratio notation
- Simplify ratios
- Ratios as fractions
- Divide in a given ratio
- Ratios of the form 1:n

#### **Algebraic Manipulation**

- **Expand and simplify** single brackets
- Expand double brackets
- Factorise into single
- Substitution

#### **Factors Multiples** and Primes

- HCF, LCM
- **Prime Factor** decomposition
- Venn diagram Notation

#### **Numeracy**

- · Four Operations with **Decimals**
- Money problems
- · Order of Operations

**AUTUMN** 1:1

# **OUR LEARNING JOURNEY**

#### Key

Topics in green are for Set 1/2 only

