Mathematics KS3: Year 7

CARDINAL NEWMAN CATHOLIC SCHOOL

Constructions
- Drawing accurate line segments and angles
- Accurate use of compasses
- Constructing triangles
- Bisection
- Loci and scale diagrams

Measures and Conversions
- Converting between metric units
- Converting between units of time
- Conversion graphs
- Calculating speed
- Distance-time graphs

Averages and Range
- Types of data
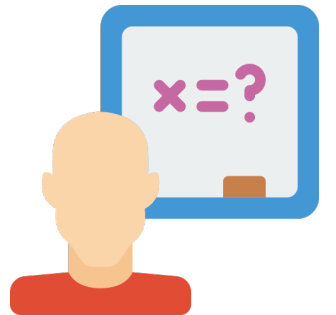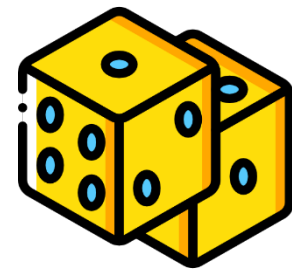- Mode, median, range
- Mean from a list or a frequency table

Probability
- Probability scale
- Listing outcomes
- Experimental and theoretical probability
- Mutually exclusive and independent events
- Relative frequency
- Expected number of outcomes
- Probability from two way tables

SUMMER 3:2

Percentages
- Calculating percentages with and without a calculator
- Increase/decrease by a given percentage
- Percentage change

Decimals, Rounding and Estimation
- Four operations with decimals
- Rounding
- Decimal Places
- Significant figures
- Estimation by rounding

SUMMER 3:1

Fractions
- Equivalent fractions
- Comparing fractions
- Four operations with fractions
- Mixed numbers and Improper Fractions

Charts and Diagrams
- Frequency diagrams
- Pictograms
- Bar charts
- Pie charts

SPRING 2:2

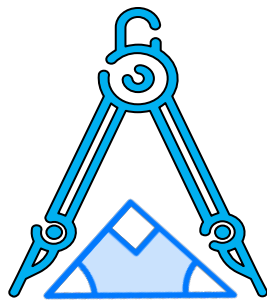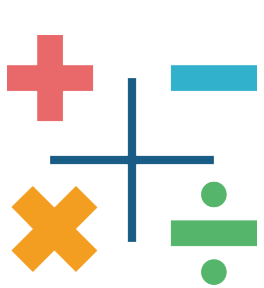**Graphs**
- Coordinates
- Plotting linear graphs

Sequences
- Term to term rule
- Generate a sequence
- Find the nth term

Transformations
- Reflection
- Rotation
- Translation
- Enlargement

3D Shapes
- Volume of cuboids
- Volume of prisms
- Nets, Plans and Elevations

Area and Perimeter
- Classifying 2d shapes
- Area and perimeter of triangles, quadrilaterals and trapezia

SPRING 2:1

Angles
- Types of angles
- Drawing and measuring
- Angle rules
- Angle properties in special types of triangles and quadrilaterals

Algebraic Manipulation
- Collect like terms
- Expand and factorise
- Substitution

Equations
- Solving linear equations
- Forming equations

AUTMN 1:2

KS2/KS3 Transition
Addressing gaps from the KS2:
- Four operations
- Properties of number
- Negative Numbers

Ratio
- Use ratio notation
- Simplify ratios
- Ratios as fractions
- Dividing in a given ratio

Calculator Introduction
- Use of a calculator

AUTUMN 1:1

OUR LEARNING JOURNEY