



Cardinal Hume Catholic School

Department of Mathematics



Year 8

Module 1

Number and Calculation

- Prime factor decomposition
- HCF/LCM
- Significant figures
- Review of four operations including on a calculator
- Four operations with decimals
- Using one calculation to find the answer to another

Sequences

- Continue sequences, find missing terms
- Term-to-term rule
- Nth term formula (arithmetic)
- Patterned sequences
- Special sequences (Fibonacci..)
- Introduction to quadratic/geometric

Fraction Calculations

- Converting to and from mixed numbers
- Multiply/divide fractions
- Add/subtract fractions

2D Shape

- Naming shapes and properties
- Compound shapes (area and perimeter)
- Parts of circles
- Compound shapes including parts of circles
- Shaded areas involving circles

Module 2

Angles

- Angles on parallel lines
- Multi-step problem solving
- Polygons (angle sum)

Ratio and Proportion

- Introducing ratios, simplifying, representing
- Link fractions to ratios
- Solve problems using equivalent ratios
- Sharing in a ratio
- Simple proportion problems

3D Shape

- Naming 3D shapes and properties
- Volume of prisms and cylinders
- Surface area of cuboids, prisms, cylinders
- Plans, elevations and nets
- Isometric drawing

Transformation

- Translations
- Enlargements (performing and describing)
- Scale drawings
- Basic similarity

Module 3

Probability

- Relative frequency – investigations
- Interpreting probability experiments
- Two-way tables
- Combinations

Percentages

- Percentage of a number (non-calculator)
- Percentage changes (multiplier method)
- Repeated percentage change
- Problem solving

Further Algebra

- Expand and simplify single brackets
- Factorise single brackets
- Solving equations involving brackets
- Solve and represent inequalities on a number line
- Changing the subject – basic

Handling Data

- Frequency tables – grouped data
- Averages from grouped frequency tables
- Interpreting Pie Charts
- Scatter graphs (plotting and interpreting)