

**Year 9 Mathematics**  
**Winter Examination Checklist**

**1. Number: Calculations and Rounding**

- Use BODMAS in calculations
- Add, subtract, multiply and divide with decimals
- Round to one, two or three significant figures

**2. Algebra: Algebraic Expressions**

- Understand and use the words expression, equation, formulae, inequality, term and factor -  
Use conventional notation in algebra, e.g.  $3 \times a$  is written as  $3a$
- Use symbols  $=$ ,  $\neq$ ,  $<$ ,  $>$ ,  $\leq$ ,  $\geq$
- Rewrite algebraic expressions by taking out common factors which are constants
- Rewrite algebraic expressions by taking out common factors which are terms
- Rewrite algebraic expressions by multiplying a single term over a bracket/expanding brackets
- Use index laws in algebra for positive powers

**3. Shape, Space and Measures: Shapes**

- Recognise 2-D representations of 3-D shapes
- Draw the net of a cube or cuboid
- Draw the front elevation, side elevation and plan view of any 3D shape
- Identify the faces, edges, and vertices of any 3D shape

**4. Number: Indices**

- Use index notation and index laws for positive integer powers
- Use prime factor decomposition to write any number as a product of its prime factors - Find the highest common factor (HCF) and least (lowest) common multiple (LCM) of any two numbers

**5. Algebra: Equations**

- Solve inequalities and represent the solution set on a number line

**6. Shape, Space and Measures: Measures**

- Understand and use compound measures to solve problems, e.g. speed, density

**7. Number: Fractions and Percentages**

- Add and subtract with fractions, including mixed numbers
- Calculate percentage increase/decrease
- Use equivalences between, fractions, decimals and percentages
- Solve problems involving fractions and percentages