STUDY GUIDE

Year 9 Mathematics   TERM 1

Assessment

A task	7th week of Term
Mental computation	Last week of Term
End of Term Test	Last week of Term

Chapter	Strand Sub-Strand	Content Description
Indices 1 Chapter 1 (2 weeks)	Number and Algebra **Real Numbers**	★ Apply index laws to numerical expressions with integer indices ★ connecting different strategies for simplifying expressions with indices to illustrate the meaning of negative indices ★ moving fluently between representations of numeric and algebraic terms with negative indices, and applying understanding of negative indices to calculations ★ applying knowledge of index laws to algebraic terms and simplifying algebraic expressions, using both positive and negative integral indices
Pythagoras' **Theorem** Chapter 2 (2 weeks)	Measurement & Geometry **Pythagoras & trigonometry**	★ Investigate Pythagoras' Theorem and its application to solving simple problems involving right angled triangles ★ understanding that Pythagoras' Theorem is a useful tool in determining unknown lengths in right-angled triangles and has widespread applications ★ recognising that right-angled triangle calculations may generate results that can be integral, fractional or irrational numbers known as surds
Area Chapter 3 (2 weeks)	Measurement & Geometry **Using units of measurement**	★ Calculate the areas of composite shapes ★ understanding that partitioning composite shapes into rectangles and triangles is a strategy for solving problems involving perimeter and area ★ Calculate the surface area of cylinders and solve related problems ★ analysing nets of prisms and cylinders to establish formulas for surface area ★ Solve problems involving surface area of right prisms ★ building on the understanding of area to become fluent with calculation, and identifying that area relationships are used in the workplace and everyday life
Linear Graphs Chapter 4 (2 weeks)	Number and Algebra **Linear & Non-linear** **Relationships**	★ Sketch linear graphs using the coordinates of two points ★ determining linear rules from suitable diagrams, tables of values and graphs and describing them both using words and algebra ★ Sketch simple non-linear relations with and without the use of digital technologies ★ sketching parabolas, hyperbolas, circles
Review Chapter 5 (2 weeks)	All of above	All of above