



TERM 1	TERM 2	TERM 3	TERM 4
<p>Integers (Number & Algebra – Number and Place Value)</p> <ul style="list-style-type: none"> • Pre-test. • Review: Adding and subtracting integers using a number line (review of Yr 7). • Simplification of addition and subtraction. • Integer multiplication & division. • Review: Order of operations • Combined operations with integers (omit square & square roots of perfect squares; these can be done with Indices). • Problem solving. • Unit test. <p>(3 weeks)</p> <p>Indices (Number & Algebra– Number and Place Value)</p> <ul style="list-style-type: none"> • Pre-test. • Review: Squares and cubes, square and cube roots. Indices, powers (index or exponents), index and expanded form, base, basic numeral. Evaluation of indices with a calculator (review of Yr 7). • Multiplying & dividing numbers in index form. • Powers of powers, products and quotients. • Order of operations with integers and indices. 	<p>Fractions and Decimals (Number & Algebra – Real Numbers)</p> <ul style="list-style-type: none"> • Pre-test. • Review equivalent fractions and simplifying fractions, mixed numbers ↔ improper fractions (review of Yr 7). • Fractions with a calculator (mixed numbers ↔ improper fractions; four processes). • Working with fractions & decimals (fractions ↔ decimals). • Types of decimals – recurring, terminating and irrational. • Negative fractions & decimals. • Unit Test. <p>(3 weeks)</p> <p>Percentages (Number & Algebra - Money and Financial Mathematics)</p> <ul style="list-style-type: none"> • Pre-test. • Estimating percentages. (review of Yr 7). • Writing fractions & decimals as percentages. • Writing percentages as fractions & decimals. • Writing one amount as a percentage of another. • Finding a percentage of an amount. • Increasing & decreasing by a given percentage. 	<p>Algebra (Number & Algebra – Patterns an Algebra)</p> <ul style="list-style-type: none"> • Pre-test. • Review of function machines, changing rules to formulas; using pronumerals (review of Yr 7). • Variables & expressions. • Substituting for variables. • Using formulas. • Simplifying expressions. • Half-time test. • Multiplying & dividing algebraic terms. • Expanding brackets. • Factorising. • Unit Test <p>(3 weeks)</p> <p>Measurement (Measurement & Geometry – Using Units of Measurement)</p> <ul style="list-style-type: none"> • Pre-test • Review: Unit conversions of length, mass, volume and capacity (review of Headstart). • Perimeter of irregular shapes, and perimeter; using formulas for squares, rectangles (review of Yr 7), rhombuses parallelograms. • Circle relationships. • Circumference of circles. • Unit conversions of area. • Area of squares, rectangles and triangles, parallelograms (review 	<p>Linear graphs (Number & Algebra - – Linear and Non-Linear Relationships)</p> <ul style="list-style-type: none"> • Pre-test • Interpreting line graphs • Linear relationships • Finding a rule • Using a linear relationships to solve problems. <p>(2 weeks)</p> <p>Ratio and Rate (Number & Algebra – Real Numbers)</p> <ul style="list-style-type: none"> • Writing ratios. • Equivalent ratios. • Simplifying ratios. • Using ratios to find amounts • Sharing an amount in a given ratio. • Rates eg. unit price, speed, exchange rates. • Scale • Unit test. <p>Enhancement AusVELS 9.0</p> <ul style="list-style-type: none"> • Unit ratios & scale factors • Scale drawings <p>(3 weeks)</p> <p>Statistics (Statistics & Probability - Data Representation and Interpretation)</p> <ul style="list-style-type: none"> • Population sampling and data collection techniques including census, poll, random sampling

<ul style="list-style-type: none"> • Unit Test. (3 weeks) <p style="text-align: center;">Geometry (Measurement & Geometry – Geometric Reasoning)</p> <ul style="list-style-type: none"> • Pre-test. • Review: Angles and Shapes (review of Yr 7). • Congruence and transformation • Congruent triangles • Congruence and quadrilaterals (3 weeks) 	<ul style="list-style-type: none"> • Financial applications of percentages. • Unit test. (3 weeks) <p style="text-align: center;">Probability (Statistics & Probability – Chance)</p> <ul style="list-style-type: none"> • Pre-test. • Language of chance, chance experiments & sample space (review of Yr 7). • Theoretical probability for single-step experiments. • Complementary probabilities and sums of probabilities. • Tree diagrams & Venn diagrams. • Two-way tables. • Unit Test (3 weeks) 	<ul style="list-style-type: none"> • (review of Yr 7), trapeziums, kites and rhombuses. • Half-time test. • Area of circles. • Unit conversions of volume and capacity. • Volume of rectangular prisms (review of Yr 7), triangular and other prisms, cylinders. • Time - duration, including using 12- and 24-hour time within a single time zone. <p>Enhancement (AusVELS 9.0)</p> <ul style="list-style-type: none"> • Area of composite shapes • Surface area of prisms (4 weeks) <p style="text-align: center;">Linear Equations (Number & Algebra – Linear and Non-Linear Relationships)</p> <ul style="list-style-type: none"> • The language of equations. • Solving linear equations by inspection and backtracking (review of Yr 7) • Solving equations by inverse operations. • Solving problems using equations. <p>Enhancement (AusVELS 9.0)</p> <ul style="list-style-type: none"> • Solving equations where the unknown appears on both sides (3 weeks) 	<p>and observation.</p> <ul style="list-style-type: none"> • Using sample measures of centre and spread such as mean, median, mode, range and outlier. • Frequency tables and histograms. • Statistics from grouped data. (3 weeks)
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