

Year 7 Mathematics
Learning and Assessment Overview 2021

Semester 1				Semester 2			
MAT 07.01 BasicSkills Number and Place Value Data Representation and Interpretation Geometric Reasoning		MAT 07.02 Real Numbers (fractions) Using Units of Measurement Chance		MAT 07.03 Real Numbers (decimals, percentages) Money & Financial Mathematics Patterns & Algebra Geometric Reasoning		MAT 07.04 Patterns and Algebra Linear and Non-linear Relationships, Shape, Units of Measurement, Location and Transformation	
Number and Place Value [Number and Algebra] – compare, order, add and subtract integers using written strategies, solve problems involving addition and subtraction of integers, ,investigate the relationship between index notation, square roots and square numbers, apply the associative, commutative and distributive laws to aid computation, revise prime factors, express numbers as a product of its primes using index notation. Data representation and interpretation [Statistics and Probability] – construct stem-and-leaf plots and dot plots; calculate mean, median, mode and range; compare a range of data displays; describe and interpret data displays using mean, median and range; identify and investigate issues involving numerical data collected from primary and secondary sources. Geometric Reasoning [Measurement and Geometry] – develop geometry conventions and angle relationships, explore transversals and angles associated with parallel lines and find unknown angles using angle relationships.		Real numbers [Number and Algebra] – compare fractions using equivalence, locate and represent fractions on a number line, solve problems involving addition and subtraction of fractions, express one quantity as a fraction of another, add and subtract fractions with unrelated denominators, explore the relationship between fractions, decimals and percentages, express one quantity as a percentage of another, interpret, represent and simplify ratios Using units of measurement – develop a formula to find the area of a rectangle, calculate the area of rectangles Chance [Statistics and Probability] – identify sample spaces for single-step events, conduct one-step chance experiments, record observed frequencies in a table, calculate probabilities from experimental data, compare experimental and theoretical probabilities.		Real Numbers [Number and Algebra] – round, multiply and divide decimals in a money context, multiply and divide fractions, add and subtract mixed numbers with unrelated denominators, solve problems involving decimals, fractions and the four operations and solve problems involving ratios, multiply decimals using written strategies, convert between fractions, decimals and percentage and express one quantity as a fraction or percentage of another. Money and Financial Mathematics [Number and Algebra] – calculate and compare unit prices, investigate and calculate best buys with and without digital technology. Patterns and Algebra [Number and Algebra] – use variables to represent numbers, create algebraic expressions, evaluate algebraic expressions by substitution. Geometric Reasoning [Measurement and Geometry] – revise triangles, quadrilaterals and types of angles, classify triangles and quadrilaterals by comparing sides and angles, make generalisations about the sum of angles in triangles and in quadrilaterals.		Patterns and Algebra [Number and Algebra] – create and evaluate formulas to model relationships between two variables. Linear and Non-Linear Relationships [Number and Algebra] – plot points on a Cartesian plane, find coordinates for points on a Cartesian plane, solve simple linear equations and create and analyse graphs from authentic data. Shape [Measurement and Geometry] – construct 3D objects, draw 3D objects from different viewpoints. Using Units of Measurement [Measurement and Geometry] – investigate the relationship between volume, the area of the base and the number of layers, calculate volume, solve problems involving area and volume. Location and Transformation [Measurement and Geometry] – describe and create translations, reflections and rotations on the Cartesian plane, use appropriate conventions for naming transformed shapes, identify a combination of transformations on the Cartesian plane, and identify line and rotational symmetry.	
Unit Duration Weeks 1 - 10 (10 weeks)		Unit Duration Weeks 11 - 20 (10 weeks)		Unit Duration Weeks 21 - 30 (10 weeks)		Unit Duration Weeks 31 - 39 (9 weeks)	
Assessment Task/s		Assessment Task/s		Assessment Task/s		Assessment Task/s	
MAT 07.01.01 Test <i>Technique:</i> Examination <i>Mode:</i> Short response items <i>Conditions:</i> 60 mins, formulas allowed <i>Issued:</i> n/a <i>Due:</i> Week 5	MAT 07.01.02 Test <i>Technique:</i> Examination <i>Mode:</i> Short response items <i>Conditions:</i> 60 mins, formulas allowed <i>Issued:</i> n/a <i>Due:</i> Week 10	MAT 07.02.01 Test <i>Technique:</i> Examination <i>Mode:</i> Short response items <i>Conditions:</i> 60 mins <i>Issued:</i> n/a <i>Due:</i> Week 17	MAT 07.02.02 Assignment <i>Technique:</i> Extended Response <i>Mode:</i> Written + Practical <i>Conditions:</i> 2 weeks classtime, 400-600 words <i>Issued:</i> Week 17 <i>Due:</i> Week 20	MAT 07.03.01 Learning Log <i>Technique:</i> Extended Response <i>Mode:</i> Written + Practical <i>Conditions:</i> 5 wks, ongoing, 400-600 words <i>Issued:</i> Week 21 <i>Due:</i> Week 25	MAT 07.03.02 Test <i>Technique:</i> Examination <i>Mode:</i> Short response items <i>Conditions:</i> 60 mins <i>Issued:</i> n/a <i>Due:</i> Week 30	MAT 07.04.01 Test <i>Technique:</i> Examination <i>Mode:</i> Short response items <i>Conditions:</i> 60mins <i>Issued:</i> n/a <i>Due:</i> Week 37	