

Year 7 – Mathematics 2022

TERM 1		
TIMING	UNIT OVERVIEW	ASSESSMENT
Weeks: 3	<p>Beginnings in Number</p> <p>Students learn about the history of number and using numbers in other cultures, place value, the four operations (addition, subtraction, multiplication, and division), using a calculator, number properties and order of operations.</p>	<p>Task Number: 1</p> <p>Nature of Task: In Class written test</p> <p>Percentage: 50% for Semester 1</p>
Weeks: 3	<p>Working Mathematically: Problem Solving</p> <p>Students learn different skills to help solve mathematical problems including direct computation, trial and error, making a drawing, diagram, model, list chart, tally, or table, eliminating possibilities, working backwards, acting it out, looking for patterns and solving a simpler problem first.</p>	<p>Week: 10</p> <p>Reported: Semester 1</p>
Weeks: 2	<p>Number & Indices</p> <p>Students learn about factors, multiples, prime and composite numbers and use prime factors to find the Highest Common Factor, the Lowest Common Multiple and square and cube roots. They also learn about writing numbers in index notation and learn divisibility tests for numbers.</p>	

TERM 2

TIMING	UNIT OVERVIEW	ASSESSMENT
Weeks: 5	<p>Patterns, Algebra and Equations</p> <p>Students learn about number patterns, pronumerals, and variables, using algebraic abbreviations and making sense of algebra. They simplify algebra expressions, including those involving index notation, discover the arithmetic laws and learn about substitution. Students learn to solve simple equations using inverse operations. They also solve two-step equations and real-life problems using equations.</p>	<p>Task Number: 2</p> <p>Nature of Task: Online Task</p> <p>Percentage: 50% for Semester 1</p>
Weeks: 3	<p>Directed Number & The Number Plane</p> <p>Students learn about positive and negative numbers on a number line and on a number plane. They will place numbers and coordinates on the number plane. They will learn about addition, subtraction, multiplication, and division of directed numbers and apply these principles to algebraic terms as well.</p>	<p>Week: 5</p> <p>Reported: Semester 1</p>
Weeks: 2	<p>Angles</p> <p>Students learn about different types of angles, how to estimate and measure them and learn to identify the types of angles within parallel lines and two-dimensional shapes.</p>	
Weeks: 3	<p>Perimeter, Area, and Volume</p> <p>Students learn to calculate the perimeter and area of plane shapes, including rectangles, triangles, parallelograms, and composite shapes. They also learn to calculate the volume of rectangular prisms and calculate the capacity and volume of 3D shapes.</p>	

TERM 3

TIMING	UNIT OVERVIEW	ASSESSMENT
Weeks: 3	<p>2D & 3D Shapes</p> <p>Students learn about plane shapes and their properties, especially triangles and quadrilaterals. They will also learn about 3D shapes including naming and drawing solids, identifying, and drawing nets of solids and drawing solids from different viewpoints.</p>	<p>Task Number: 3</p> <p>Nature of Task: Investigation</p> <p>Percentage: 50% for Semester 2</p>
Weeks: 3	<p>Decimals</p> <p>Students learn to add and subtract decimals, multiply and divide decimals by a whole number or by another decimal. They will also learn how to round decimals and how decimals are used in everyday life, including converting between decimals and fractions.</p>	<p>Week: 5</p> <p>Reported: Semester 2</p>
Weeks: 3	<p>Fractions</p> <p>Students learn to compare fractions of different sizes, add, and subtract fractions, add, and subtract mixed numbers, multiplication, and division of fractions. They will also apply their knowledge of fractions to calculate fractions of quantities, best buys, and complete ratio questions.</p>	

TERM 4

TIMING	UNIT OVERVIEW	ASSESSMENT
Weeks: 2	<p>Percentages</p> <p>Students learn to convert between decimals, fractions, and percentages. They learn to find a percentage of a quantity and how to write one quantity as a percentage of another. They apply their knowledge of percentages to solve real-life problems.</p>	<p>Task Number: 4</p> <p>Nature of Task: In Class written test</p> <p>Percentage: 50% for Semester 2</p>
Weeks: 2	<p>Statistics</p> <p>Students learn about different types of data, how to collect, sort and analyse the data, specifically including frequency histograms, dot plots and stem-and-leaf plots.</p>	<p>Week: 3</p> <p>Reported: Semester 2</p>
Weeks: 2	<p>Probability</p> <p>Students learn the language of probability, conduct simple experiments, and find samples spaces and the probability of simple events. They use probability to solve real-life problems.</p>	
Weeks: 3	<p>Symmetry & Transformation</p> <p>Students learn about symmetry, transformation, translation, reflections, and rotations of shapes, along with a combination of transformations to create patterns and shapes.</p>	