Year 7 – Mathematics 2024

TERM 1		
TIMING	**UNIT OVERVIEW**	**ASSESSMENT**
Weeks: 3	**Directed number** Students learn about the history of number, the four operations (addition, subtraction, multiplication, and division), using a calculator, number properties and the order of operations. They will learn about addition, subtraction, multiplication, and division of directed numbers and apply these principles with negative integers.	Task Number: 1 Nature of Task: In Class Task Week: 7 Percentage: 50% for Semester 1 Reported: Semester 1
Weeks: 1	**The Number Plane** 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.	
Weeks: 2	**Whole numbers** 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.	
Weeks: 2	**Fractions** 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.	
Weeks: 2	**Decimals** Students learn to compare and order decimals, covert between fractions and decimals and also solve problems involving them.	

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	TERM 2	
TIMING	**UNIT OVERVIEW**	**ASSESSMENT**
Weeks: 3	**Algebra** Students learn to use the laws of arithmetic involving algebra and variables. The practice writing algebraic terms and expressions and converting worded problems into algebraic number sentences. Students learn to substitute into algebraic expressions.	Task Number: 2 Nature of Task: In Class test Week: 5 Percentage: 50% for Semester 1 Reported: Semester 1
Weeks: 2	**Linear relationships** 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.	
Weeks: 2	**Transformations** Students learn to translate, reflect, and rotate geometrical figures. They identify line symmetries and rotational symmetries of a variety of shapes.	
Weeks: 3	**Angles** 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.	

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	TERM 3	
TIMING	**UNIT OVERVIEW**	**ASSESSMENT**
Weeks: 3	**Equations** Students learn to apply a systematic approach to solve algebraic equations. They practice solving two-step equations and real-life problems using equations. .	Task Number: 3 Nature of Task: In class test Week: 7 Percentage: 50% for Semester 2 Reported: Semester 2
Weeks: 2	**Geometrical figures** Students learn about plane shapes and their properties. They will learn how to classify triangles by their side lengths and angle sizes. They will look at classifying quadrilaterals by their properties. Students learn how to find exterior angles and the interior angle sums in triangles and quadrilaterals.	
Weeks: 2	**Time** Students will practice their time calculations and also converting between 12 hour and 24 hour time. They will look at Australian time zones and world time differences. Students will practice reading timetables from a variety of applications.	
Weeks: 2	**Decimals** Students practice calculations involving the operations when working with decimals. They will then understand terminating and recurring decimals and practice rounding numbers to specified decimal places.	
Weeks: 1	**Perimeter** Students will understand the metric system and practice calculating the perimeter of plane shapes. They will investigate π and determine the circumference of circles and the length of arcs.	

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TIMING	UNIT OVERVIEW	ASSESSMENT
TERM 4		
Weeks: 3	**Area and Volume** Students practice converting between the metric units for area. They determine the area of plane shapes including some of the quadrilaterals. Students then investigate the units of volume and calculations for the volume of a variety of prisms. Students finish the topic by understanding the difference between volume and capacity.	Task Number: 4 Nature of Task: In Class task Week: 3 Percentage: 50% for Semester 2 Reported: Semester 2
Weeks: 3	**Data** Students will practice interpreting data from a variety of graphs. They will construct column graphs, dot plots and stem-and-leaf plots. Students will identify problems with graphs and which ones are misleading. Students will then be introduced to statistics with the mean, median, mode and range.	
Weeks: 2	**Percentages** 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.	
Weeks: 2	**Probability** Students will investigate probabilities in a range of practical situations. They will understand the purpose of a sample space and the range of probability on the number line. Students will understand the difference between theoretical probability and compare it to the relative frequency from an experiment.	