Admiralty Primary School

Primary 3 Mathematics

Lesson Focus

Semester 1

Numbers to 10 000 – Pupils will learn how to recognise, count, write and compare numbers up to 10 000.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Counting relates to finding how many • Manipulatives with tens as the base are used to model numbers • The relative value of a number can be known through comparing it with other	• Count in hundreds/thousands • Read and write numbers in numerals and in words • Recognise number notation and the respective value and place value of each digit • Relate how big numbers are used in real life • Compare and order numbers within 10 000 • Identify patterns in number sequences	• Digit • Value • Stands for • Thousands, hundreds, tens, ones • compare, greater than, smaller than, greatest, smallest • increasing order, decreasing order • even, odd

Addition and Subtraction Numbers Within 10 000 – Pupils will learn to add and subtract numbers within 10 000.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Parts are added to make up a whole • A whole is the sum of different parts • Comparing numbers results in one number being more or less than the other number by a certain value	• Add up and subtract up to 4-digit numbers with and without renaming • use a variety of mental strategies (number bond, making tens, breaking down numbers, using patterns etc) for mental calculation involving addition and subtraction of two 2-digit numbers • Draw part-whole or comparison models to illustrate concept of addition and subtraction when solving word problems • Add and subtract 2-digit numbers mentally	• Sum and difference • Addition (with and without renaming) • Subtraction (with and without renaming) • Part-whole model • Comparison model

Money – Pupils will learn how to add and subtract money in decimal notation.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Money is used as a measure of value or worth • Money is used exchange for something that is worth the monetary amount	• Add and subtract money in whole numbers and in decimal notation • Real-life math application of addition and subtraction in money	• Prices, cost, value • Amount of change, amount left, amount spent • Dollars, cents • More expensive, cheaper
Multiplication Tables of 6, 7, 8 and 9 – Pupils will learn how to skip-count, multiply and divide numbers within the multiplication tables of 6, 7, 8 and 9.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Multiplication is conceptualised from repeated addition of equal-sized groups of objects • Division is conceptualised as equal sharing or equal-sized grouping of objects	• Relate multiplication concept as equal-sized groups of 6, 7, 8 and 9 • Relate division concept as equal-sized groups of 6, 7, 8 and 9 objects • Compute the multiplication and division facts of 6, 7, 8 and 9 mentally	• Multiplication (with and without renaming) • Division (with and without renaming) • Groups • As many as • __ times as many (eg. Twice is two times as many) • twice
Multiplication and Division – Pupils will learn how to multiply and divide.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Multiplication is conceptualised as an equal-sized grouping of objects multiplied a number of times • Division is conceptualised as equal sharing or equal-sized grouping of objects	• Multiply a 2-digit or 3-digit number by a 1-digit number with and without renaming • Divide a 2-digit or 3-digit number by a 1-digit number without or with renaming (with or without a remainder) • Solve word problems involving the four operations	• Multiplication (with and without renaming) • Division (with and without renaming) • Each • Equal • Product

More Problem Sums I and II		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Application of 4-operations like addition, subtraction, multiplication, and division in problem sums.	• Identify and understand the use of different types of model drawings, including part-whole models and comparison models. • Apply problem-solving strategies and heuristics such as guess-and-check, pattern recognition, and working backwards to solve mathematical problems effectively.	• Part-whole • Comparison • Sum, Difference • Total
Bar Graphs – Pupils will learn to organize information using bar graphs and interpret information from the graphs.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Data can be organized and presented for interpretation using bar graphs • Bar graphs are used for comparison of data across categories	• Read and interpret data from bar graphs • using different scales on axis	• symbol • Data • Scale • Represent • Category • Vertical and horizontal bar graphs • Composite bar graph
Angles – Pupils will learn the concept of angles and how to compare angles.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• An angle is the measure of the amount of turning made between two straight lines about a point	• Identify if an angle is a right angle, an acute angle, or an obtuse angle • Identify angles greater than or smaller than a right angle	• Right angle • Acute angle • Obtuse angle • Size of an angle

Perpendicular and Parallel Lines – Pupils will learn about different pairs of lines and how to construct those lines.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Perpendicular lines are lines that are at right angles to each other • Parallel lines do not meet and the distance between them is always the same	• Identify and name a pair of perpendicular lines and parallel lines using the symbol "⊥" and "//' respectively • Draw perpendicular lines and parallel lines on a square grid • Use a set square and a ruler to construct perpendicular lines and parallel lines	• Vertical, horizontal • Right angle • Perpendicular line • Parallel line
Fractions – Pupils will learn to recognise parts of a whole in their equivalent forms.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• A fraction is seen as the relationship between one or more equal parts of a whole • Equivalent fractions are fractions of equal sizes • Fractions of different sizes can be compared when they have a common 'base'	• Divide a given fraction into smaller equal parts to get an equivalent fraction • Find equivalent fractions through multiplying the numerator and denominator by the same number • Express a fraction in its simplest form • Compare and order fractions • Add and subtract fractions	• Equal parts • Fractions (like fractions, unlike fractions, equivalent fractions) • Numerator and denominator • Part-whole • Simplest form • Equivalent

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Lesson Focus

Semester 2

Length, Mass and Volume – Pupils will learn how to develop a sense of measurement with respect to attributes of length, mass and volume (of liquid).		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Assign a numerical value to an attribute (length, mass or volume) of an object to show the size or amount of the object • Standard units are used as measurement of the attributes of an object	• Estimate and measure length in centimetres, metres and kilometres • Estimate and measure mass in grams and kilograms • Measure volume of liquid in millilitres and litres • Convert between units of measurement for length, mass and volume • kilometres (km) and metres (m) • metres (m) and centimetres (cm) • kilograms (kg) and grams (g) • litres (ℓ) and millilitres (ml)	• Height, distance, length • centimetres, metres and kilometres • Mass, Heavier, lighter, heaviest, lightest • grams, kilograms • Volume and capacity • millilitres, litres
Area and Perimeter – Pupils will learn how to define perimeter and area, and how to use the formula for calculating them.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Perimeter is the distance around a closed figure • Area is the amount of space taken up by the closed figure	• Find the perimeter and area of a closed figure • Measure area in square units (units^2), square centimetres (cm^2) and square metres (m^2) • Compare the perimeters and areas of different figures	• Space • Area • Length, Breadth • Perimeter • Square units (units^2), square centimetres (cm^2) and square metres (m^2)

Time – Pupils will learn how to tell times of the day and solve problems involving durations, starting time and finishing time.		
Key Concepts	**Learning Objectives**	**Math Vocabulary**
• Time is a form of measurement to describe the sequence of events and how long they take	• Measure time in seconds • Read and write time in the 12-hour and 24-hour clock • Find the starting time, finishing time or duration involving the 24-hour clock	• Time • Seconds • 12-hour clock, 24-hour clock • Starting time, finishing time • Arrival time, departure time • Duration