Admiralty Primary School

2023 Primary 4 Mathematics

Lesson Focus

Semester 1

Numbers To 100 000 – Pupils will learn how to recognise, write and compare numbers up to 100 000.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Counting relates to finding how many • Comparing numbers shows the relative values of numbers	• Recognise number notation and the respective place value of each digit • Compare and order numbers within 100 000 • Identify patterns in number sequences	
Factors and Multiples – Pupils will learn about factors and multiples, and how they are related.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Factors are the numbers that are multiplied to get a product • Dividing the product by a factor leaves no remainder • Multiples are the numbers obtained by multiplying factors	• List the factors of a given whole number up to 100 • Find the common factors and multiples of two given whole numbers • List up to the first 12 multiples of a given whole number	

Four Operations of Whole Numbers – Pupils will learn how to multiply and divide up to 4-digit numbers.		
Key Concepts	**Learning Objectives**	**Maths 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	• Multiply and divide numbers up to 4 digits by a 1-digit number, and numbers up to 3 digits by a 2-digit number • Solve non-routine word problems involving the four operations	
Fractions – Pupils will learn about mixed numbers, improper fractions, comparison of fractions, adding and subtracting fractions and fractions of a set.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• A mixed number is the sum of a whole number and a proper fraction • An improper fraction is a fraction with a numerator equal to or greater than the denominator • A fraction may be expressed as a part of a set of objects	• Convert between mixed numbers and improper fractions • Compare and order fractions involving mixed numbers and/or improper fractions • Add or subtract unrelated fractions • Solve problems involving fraction of a set	

Angles – Pupils will learn how to name angles, measure and draw angles using a protractor, and directions using an 8-point compass.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• An angle is a measure of the amount of turning made between two straight lines about a point	• Name an angle (e.g. ∠ABC or ∠b) • Measure and draw an angle using a protractor • Relate $\frac{1}{4}$ turn, $\frac{1}{2}$ turn, $\frac{3}{4}$ turn and a complete turn to a turn of 90°, 180°, 270° and 360° respectively • Solve problems involving the directions based on an 8-point compass	
Squares and Rectangles – Pupils will learn the properties of squares and rectangles, how to draw them, and how to find unknown sides and angles.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• A square is a four-sided figure with 4 equal sides and 4 right angles • A square is a special type of rectangle	• State the properties of a square and a rectangle • Draw a square or rectangle on a square grid, and with the aid of a set square or protractor without a square grid • Find unknown sides and angles of a square and a rectangle	
P3 Topics – Area & Perimeter, Perpendicular & Parallel Lines, Bar Graphs, Time		

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Semester 2

Decimals – Pupils will learn to read write and compare decimals up to 3 decimals, and round decimals to 2 decimal places.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Place value concepts involving tenths, hundredths and thousandths	• Express a fraction with a denominator 10, 100 or 1000 as a decimal • Express decimals as fractions • State the place value of each digit in a number up to 3 decimal places • Compare and order decimals up to thousandths • Round a decimal to the nearest whole number, or up to 2 decimal places • Solve word problems involving mixed numbers, fractions and decimals	• Decimals • Fractions, numerator, denominator, simplest form • Place values, tenths, hundredths, thousandths • Compare, smaller than, greater than, more than, less than • Rounding

Four Operations of Decimals – Pupils will learn how to add, subtract, multiply and divide decimals using the standard algorithm.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Addition – combining quantities, finding missing whole or comparing quantities • Subtraction – removing quantities, finding missing part or comparing quantities • Multiplication – repeated addition or quantity is x times as many as another • Division – equal sharing or equal grouping of items	• Add and subtract decimals up to 2 decimal places with and without renaming • Add and subtract decimals with 1 decimal place mentally • Estimate the sum and difference between 2 decimals • Solve up to 2-step word problems involving addition and/or subtraction of decimals • Multiply and divide decimals up to 2 decimal places by a 1-digit whole number • Estimate the product in multiplication/quotient in division of decimals by a whole number • Round the quotients to 1 or 2 decimal places after dividing • Solve up to 2-step word problems involving the 4 operations of decimals	• Decimals • Place values • Add, subtract, multiply, divide • Estimate

Symmetry – Pupils will learn what symmetric figures are (figures that have one or more lines of symmetry), and how to construct and draw symmetric figures and patterns.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Symmetry is based on the concept of reflection, that is, a symmetric figure can be divided into 2 halves where each half is the mirror image of the other	• Identify if a figure or letter is symmetric • Identify lines of symmetry and state the number of lines of symmetry in a figure/pattern • Complete a symmetric figure/pattern on a square grid given half the symmetric figure/pattern • Use shapes to complete symmetric figures • Complete a symmetric pattern by shading a required number of squares	• Symmetry • Symmetric figure • Line of symmetry • Mirror image • Halves
Area and Perimeter – Pupils will learn how to find the unknown sides of squares and rectangles given their areas or perimeters, and how to find the areas and perimeters of composite figures made up of squares and rectangles.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Area is the amount of surface space taken up by a closed figure • Perimeter is the distance around a closed figure	• Find the unknown side of a square given its area or perimeter • Find the unknown side of a rectangle given its area or perimeter and one of the sides • Identify the shapes that make up a composite figure, and find the area and/or perimeter of the composite figure • Solve non-routine problems involving the area and/or perimeter of overlapping squares and/or rectangles	• Area • Perimeter • Composite figure • Related rectangle • Overlapping area

Tables and Line Graphs – Pupils will learn how to read, present and interpret data in tables and line graphs.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Data can be organized in tables or graphical forms to convey information	• Present, read, and interpret data from tables • Discuss how data is collected and displayed in a bar graph • Read and interpret data from line graphs • Identify the differences and suitability of presenting data between a bar graph and a line graph • Recognise and explain why a bar graph and line graph may be misleading	• Data • Tally • Table • Row and column • Bar graph • Line graph • Labels, category • Horizontal scale, vertical scale
Time – Pupils will learn to measure time in seconds and read time in the 24-hour clock format.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Time is a form of measurement	• 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 • Duration
P3 Topics – Money, Mensuration, Fractions, Angles, Perpendicular & Parallel Lines, Area & Perimeter, Bar Graphs, Time		