

Admiralty Primary School
Primary 6 Mathematics
Lesson Focus

Fractions		
Pupils will learn how to divide a proper fraction by a whole number as well as divide a whole number or proper fraction by a proper fraction.		
Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none">• Dividing a fraction by a whole number may be seen as finding a fraction of the given fraction• Dividing a whole number or a proper fraction by a proper fraction may be seen as the number of times the proper fraction can fit into the given whole number or proper fraction	<ul style="list-style-type: none">• Divide a proper fraction by a whole number• Divide a whole number by a proper fraction• Divide a proper fraction by a proper fraction	<ul style="list-style-type: none">• Share equally• Divide equally

Ratio
Pupils will learn the concept of ratio and its relation to fractions and solve a variety of problems that incorporate fractions and context with before-after situations

Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none"> • Ratio is the comparison of two or more quantities • Ratio is related to the concept of proportion • Concept of finding new ratios requires an understanding of equivalent ratios or first common multiples 	<ul style="list-style-type: none"> • Express ratios of quantities as fractions and vice versa • Find one quantity given another quantity using the idea of ratio • Explain the difference between the ratios of lengths of the squares and the ratios of their areas • Solve problems that involve fractions, ratios of 3 quantities and changing ratios 	<ul style="list-style-type: none"> • Ratio • Equivalent ratio • Before-after situation

Percentage
Pupils will learn about finding the original amount given the percentage of a part and another part.
Pupils will learn to find percentage increase or decrease and overall increase or decrease.

Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none"> • A percentage is a ratio that compares a number against 100 • Fractions and decimals can be expressed as percentages and vice versa 	<ul style="list-style-type: none"> • Find the whole given a part and the percentage • Find percentage increase/decrease • Find percentage change with given data from real-life examples 	<ul style="list-style-type: none"> • Percentage • Part, whole • Unitary method • Percentage increase, decrease, more than, less than

Angles in Geometrical Figures
Pupils will apply angle properties that they have learnt to find unknown angles in geometrical figures.

Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none"> Sum of angles on a straight line is 180° Vertically opposite angles are equal Sum of angles at a point is 360° Properties related to a square, rectangle, triangle, parallelogram, rhombus and trapezium 	<ul style="list-style-type: none"> Find unknown angles in geometrical figures involving square, rectangle, triangle, parallelogram, rhombus and trapezium 	<ul style="list-style-type: none"> Square, rectangle, triangle, parallelogram, rhombus, trapezium Properties, angles

Circles
Pupils will learn about the various parts of a circle and find the circumference and area of a circle.
Pupils will also find the perimeters and areas of semi-circles, quarter circles and composite figures involving semicircles and quarter circles.

Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none"> π is the ratio of the circumference of the circle to its diameter The formula used to find circumference of a circle is $2 \times \pi \times \text{radius}$ or $\pi \times \text{diameter}$ The formula used to find the area of a circle is $\pi \times \text{radius} \times \text{radius}$ 	<ul style="list-style-type: none"> Recognise a semicircle and a quarter circle Recognise the parts of a circle Recognise that all radii of a circle have the same length Find the relationship between the diameter and the radius Recognise that π is the ratio of the circumference of the circle to its diameter Find the circumference and area of a circle Find the perimeter and area of figures involving semicircles and quarter circles Find the area and perimeter of composite figures 	<ul style="list-style-type: none"> Circle, quarter circle, semicircle Radius, diameter, circumference, length of arc, area

Volume

Pupils will learn to find the edges (length, breadth or height) of cubes and cuboids, the area of one face of cubes and cuboids, and solve problems involving volume.

Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none">• Volume is the amount of space and object occupies• Volume is measured in cubic unit (non-standard unit)• Volume is measured in m^3, cm^3, ℓ and ml (standard unit)• Volume of a cuboid/cube can be found based on multiplying its three sides (length, breadth and height) or based on multiplying the area of one of its faces by its perpendicular edge	<ul style="list-style-type: none">• Find an edge of a cuboid given the volume and two other edges / the area of one face• Find an edge of a cube given the volume or the area of one face• Find the volume of a cube• Find the square root or cube root of a number• Find the area of one face of a cuboid given the volume and one edge• Find the area of one face of a cube given the volume	<ul style="list-style-type: none">• Volume, cube, cuboid, unit cube, solid figure• Capacity• Cubic unit, cubic metre (m^3), cubic centimetre (cm^3), litre (ℓ) and millilitre (ml)• Square root and cube root

<p style="text-align: center;">Average</p> <p style="text-align: center;">Pupils will learn that average is the arithmetical mean of a set of data and the relationship between average, total value and number of data</p>		
Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none"> • Average is a representative value used to describe a data set • Average can be found as Total value divided by the amount of data. 	<ul style="list-style-type: none"> • Discuss the meaning of average in real-life contexts, such as average height. • Recognise the relationship between average, total value and number of data, and calculate the third quantity when any two are given. 	<ul style="list-style-type: none"> • Average • Total • Number of Data
<p style="text-align: center;">Algebra</p> <p style="text-align: center;">Pupils will learn how to represent unknown numbers using letters and develop a conceptual understanding of expressions and solve linear equations.</p>		
Key Concepts	Learning Objectives	Maths Vocabulary
<ul style="list-style-type: none"> • Letters or symbols are used to represent and analyse mathematical situations or structures 	<ul style="list-style-type: none"> • Use letters to represent unknown numbers • Write an algebraic expression to represent a situation • Simplify algebraic expressions • Evaluate simple linear algebraic expressions by substitutions • Solve simple linear equations involving whole number coefficients only 	<ul style="list-style-type: none"> • Algebra • Algebraic expression • Simplify, like, terms • Evaluate • Equation