Admiralty Primary School
Primary 6 Mathematics
Lesson Focus

Algebra **Pupils will learn how to represent unknown numbers using letters and develop a conceptual understanding of expressions and solve linear equations.**		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Letters or symbols are used to represent and analyse mathematical situations or structures	• 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	• Algebra • Algebraic expression • Simplify, like, terms • Evaluate • Equation
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**
• 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	• Divide a proper fraction by a whole number • Divide a whole number by a proper fraction • Divide a proper fraction by a proper fraction	• 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**
• Ratio is the comparison of two or more quantities • Ratio is related to the concept of proportion • Concept of changing ratio requires an understanding of equivalent ratios or first common multiples	• 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	• 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**
• A percentage is a ratio that compares a number against 100 • Fractions and decimals can be expressed as percentages and vice versa	• Find the whole given a part and the percentage • Find percentage increase/decrease • Find percentage change with given data from real-life examples	• 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**
• 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	• Find unknown angles in geometrical figures involving square, rectangle, triangle, parallelogram, rhombus and trapezium	• 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**
• π is the ratio of the circumference of the circle to its diameter • The formula used to find circumference of a circle is $2 \times \pi \times$ radius or $\pi \times$ diameter • The formula used to find the area of a circle is $\pi \times$ radius $\times$ radius	• 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	• Circle, quarter circle, semicircle • Radius, diameter, circumference, length of arc, area

Speed **Pupils will learn how to relate speed, distance and time, and solve problems involving speed.**		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Speed is the distance travelled per unit time • Speed is proportional to distance travelled per unit time	• Recognise the speed of an object as the distance travelled per unit time • Write speeds in different units such as km/h, m/min, m/s, cm/s • Compare speeds of different objects • Find speed, distance and time	• Speed, distance, time • Average speed
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**
• 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	• 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	• 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

Pie Charts Pupils will learn how to read and interpret data from pie charts.		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• The pie chart is a circle graph • All the parts of a pie chart add up to 1 whole or 100%	• Present data in pie charts • Solve problems using data in pie charts	• Table, graph, pie chart • Data
Solid Figures and Nets **Pupils will learn about different types of solid figures, their properties and the nets of solid figures of cubes, cuboids, prisms and pyramids.**		
Key Concepts	**Learning Objectives**	**Maths Vocabulary**
• Properties of cube, cuboid, cylinder, prism and pyramid • A 3D figure can be unfolded to form one or more 2D nets of the 3D figure	• Recognise solid figures like cones, cylinders, prisms and pyramids and their properties • Draw 3D representations of cube, cuboid, cone, cylinder, prism and pyramid • Identify the solid formed by the given net • Identify the net formed by the given solid • Draw and make nets of a cube • Relate the dimensions of the cuboid to the respective dimensions of its net and vice versa • Identify a pattern between the number of faces, vertices and edges of a solid figure	• Solid figures • Cube, cuboid, cone, cylinder, pyramid, prism • Nets, faces, edges