

### Year 3 End of Unit Milestones: Summer Term

#### **Statistics: Picture Graphs and Bar Graphs**

##### **By the end of this unit, children will be able to:**

- construct picture graphs from a set of data; to present data with pictures that represent more than one item
- construct bar graphs from a set of data; to use proportion to reflect precise difference in quantity
- read and interpret information from a bar graph; to use and understand vocabulary related to bar graphs
- bar graphs where the scale is not a multiple of all quantities measured
- read bar graphs where the scale is made up of larger increments

#### **Fractions, Decimals and Percentages: Fractions**

##### **By the end of this unit, children will be able to:**

- count in tenths; to recognise tenths and be able to determine how many tenths are shaded
- make number pairs to create 1; to combine fractions to make 1
- add fractions with the same denominator
- consolidate adding fractions with the same name; to learn how fractions can add to 1
- subtract fractions with the same name
- find equivalent fractions through paper folding and shading
- find equivalent fractions using paper folding and shading
- find equivalent fractions; to place fractions on a number line
- find fractions equivalent to  $\frac{1}{2}$
- use pictorial representations and multiplication to show equivalence
- find equivalent fractions using concrete objects and pictorial representations and multiplication
- find the simplest fraction using visualisation and concrete materials, pictorial representations and division
- find equivalent fractions using multiplication and division; to determine whether or not a fraction is equivalent
- compare the fractions  $\frac{1}{2}$  and  $\frac{1}{4}$  using pictorial representations and concrete materials
- compare fractions using pictorial representations
- understand the numerical nature of the numerator
- compare fractions with different names (denominators) using pictorial representations and number lines
- add fractions using pictorial representations; to simplify fractions after adding them
- subtract fractions using pictorial representations and to simplify fractions after they have been subtracted
- subtract fractions from a whole amount; to use pictorial representations of whole numbers to help subtract fractions
- determine a fraction of a whole number using pictorial representations
- find a fraction of a whole number using pictorial representations, multiplication and concrete objects

- consolidate finding the fraction of a whole number
- divide 1 between more than 1; to share 1 whole equally between more than 1
- share more than 1 using pictorial representations and division
- recognise a whole and its parts using pictures and number lines.
- show more than 1 whole after sharing a number of items equally
- use pictorial representations to share whole items equally
- apply bar modelling to represent fractions in word problems; to solve word problems using pictorial representations and
- abstract methods.

### Geometry – Properties of Shapes: Angles

**By the end of this unit, children will be able to:**

- learn what makes an angle and identify angles in objects
- see angles on the inside and outside of objects; to find angles in letters
- find angles in shapes; to determine the relationship between the number of angles in a shape and the number of sides
- find right angles in everyday objects; to understand what makes a right angle
- compare angles using the terms 'right' angle and 'acute' angle
- identify acute angles as smaller angles than right angles
- identify right angles and acute angles
- recognise and define an obtuse angle
- make turns using angles vocabulary
- align the language of angles and fractions to describe turns.

### Geometry – Properties of Shapes: Lines and Shapes

**By the end of this unit, children will be able to:**

- identify, define and create perpendicular lines
- find perpendicular lines in everyday objects
- identify, define and create parallel lines; to find parallel lines in everyday objects
- define and identify vertical and horizontal lines; to find vertical and horizontal lines in everyday life
- describe 2-D shapes using familiar vocabulary about lines and angles
- draw 2-D shapes in proportion to their size; to identify how big a shape is
- create 3-D shapes out of nets; to use vocabulary related to 3-D shapes and their properties
- construct 3-D shapes out of clay and discuss their properties

- describe 3-D shapes using familiar terms; to identify properties of 3-D shapes.

### **Measurement: Perimeter of Figures**

#### **By the end of this unit, children will be able to:**

- determine the perimeter of basic shapes; to use grid paper to measure the perimeter of a shape
- measure the perimeter of a shape using 1 cm grid paper
- determine the perimeter of different shapes; to create shapes with a specific perimeter
- find the perimeter of shapes using 2 cm grids
- calculate the perimeter of a shape using a ruler to measure the side lengths
- calculate the perimeter of a rectangle using multiplication and addition
- calculate the perimeter of a square using addition and multiplication
- calculate the perimeter of rectangles and irregular shapes by adding up the length of each side
- consolidate learning about perimeter using practical word problems; to calculate the perimeter of a rectangle using properties of shapes.