## Statistics: Graphs and Averages

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

- calculate the average (mean) of sets of values
- solve problems involving the mean
- use the mean and the number of values to calculate the total
- show information on graphs
- transfer information from a table to a pie chart
- read and interpret pie charts
- use percentages in pie charts.
- use knowledge of angles to interpret pie charts
- interpret the information in line graphs that show distance and time.
- read and interpret line graphs
- answer questions about the information in line graphs.


## Place Value and Number: Negative Numbers

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

- add and subtract negative numbers using a number line
- solve problems using negative numbers.


## Solving Word Problems

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

- To use bar models to solve word problems involving the four operations.
- To use the bar model heuristic to solve word problems involving money.
- To use the bar model heuristic to solve complex word problems involving ratio.
- To use the bar model heuristic to solve complex word problems involving time.
- To solve word problems that apply the bar model heuristic and involve fractions.
- To create and solve complex word problems using the four operations.


## Algebra

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

- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to
- express a rule using a letter or symbol.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express
- the relationship between consecutive numbers in terms of a symbol or letter.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express the
- relationship between consecutive numbers in terms of a symbol or letter.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express
- unknown numbers in terms of a letter or symbol, including using a number before a letter for multiplication.
- To use a table to identify a pattern; to write algebraic expressions using each of the four operations.


## Geometry

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

- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to
- express a rule using a letter or symbol.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a repeating pattern; to express
- the relationship between consecutive numbers in terms of a symbol or letter.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express the
- relationship between consecutive numbers in terms of a symbol or letter.
- To determine a pattern using concrete materials and pictorial representation; to use a table to identify a pattern; to express
- unknown numbers in terms of a letter or symbol, including using a number before a letter for multiplication.
- To use a table to identify a pattern; to write algebraic expressions using each of the four operations.
- To use algebra to describe the positions of coordinates in relationship to one another.
- To represent translation and reflection using algebraic notation.


## Geometry

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

- To draw triangles using measurements and angles as the starting point; to use a protractor to draw triangles using angles.
- To construct triangles using a protractor and ruler; to use ratio to determine the dimensions of a triangle.
- To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.
- To construct the nets of 3-D shapes by identifying the faces and the 2-D shapes that construct them.

