

# LEVEL 6 MATHS



## SHAPE & SPACE



### Perimeter area and volume

I can....

- \* Find the area of a square, rectangle, and triangle
- \* Find the area of a parallelogram, trapezium, kite and rhombus
- \* Find the area of a circle
- \* Find the circumference (distance round the edge) of a circle
- \* Find the volume of a cuboid

### Angles:

I can use the fact that....

- \* Opposite angles are equal
- \* There are 180 degrees in a triangle
- \* There are 180 degrees on a straight line
- \* There are 360 degrees at a point
- \* There are 360 degrees inside a quadrilateral
- \* Some special triangles and quadrilaterals have special properties
- \* Parallel Lines have lots of angles the same

### Shapes:

I can....

- \* Name all of the four-sided shapes
- \* Describe the things that make special triangles special
- \* Find angles inside and outside shapes with any number of sides

### Transforming Shapes:

I can....

- \* Reflect a shape in a mirror line (reflection)
- \* Turn a shape from a point in 90 degree turns (rotation)
- \* Make a shape bigger following the rules of scale (enlargement)
- \* Move shapes around grids using things called vectors (translation)

### 3-D Shapes:

I can....

- \* Draw shapes from the top side and front in 2-D (plans and elevations)
- \* Use isometric paper to draw 3-D shapes
- \* Make a scale drawing of a shape



## ALGEBRA



### Sequences:

I can....

- \* Write a sequence of numbers from written instructions
- \* Turn a sequence of numbers into a rule using algebra

### Equations:

I can....

- \* Find and the value of a letter in a simple equation
- \* Use Trial and Improvement to find a value for a letter

### Co-Ordinates

I can....

- \* Say where a point is using co-ordinates
- \* Use co-ordinates with negative numbers
- \* Draw a line graph by plotting co-ordinates
- \* Draw a conversion graph following a set of rules
- \* Use a straight line graph to find out unknown values



## NUMBER



### Fractions:

I can....

- \* Change a fraction into a decimal
- \* Change  $2\frac{3}{4}$  into  $11/4$  and back again
- \* Find a fraction of something
- \* Recognise two fractions that mean the same thing
- \* Turn  $10/25$  into  $2/5$

### Percentages:

I can....

- \* Change a percentage into a fraction or decimal
- \* Find a percentage of something
- \* Increase or decrease something by a percentage
- \* Work out what percentage I have of something (E. G. Work out my last Test percentage)

### Decimals:

I can....

- \* Put a list of decimal numbers into order
- \* Round numbers to different numbers of decimal places
- \* Change between fractions decimals and percentages.

### Ratios:

I can....

- \* Write two numbers as a ratio
- \* Describe what a ratio shows
- \* Understand that two ratios could mean the same thing
- \* Split something into piles using a ratio



## DATA HANDLING



### Displaying Data:

I can....

- \* Draw pie chart
- \* Understand what a pie chart tells me
- \* Draw a scatter graph
- \* Understand what a scatter graph tells me
- \* Describe what correlation is using positive negative and no correlation
- \* Draw a frequency polygon
- \* Read a frequency polygon
- \* Take a survey of people to collect data
- \* Understand the difference between the discreet and continuous data

### Probability:

I can....

- \* List the possible outcomes for two things that happen
- \* Work out the probability of something happening
- \* Understand that two things sometimes cannot happen at the same time
- \* Work out the probability of something not happening when I know the probability that it will happen
- \* Work out the number of times I would expect something to happen if I know its probability