

# Entrance Exam Maths Topics

## Number and Algebra

Fractions (including simplifying, equivalence and fractions of amounts).  
Place Value (from 3 decimal places up to one million - includes rounding to two decimal places)  
All the four operations:

- addition (up to tens of thousands)
- subtraction (up to tens of thousands)
- multiplication (including multiplying large numbers by two digits)
- division (including division of large numbers by two digits)

Negative numbers  
Number machines  
Magic squares  
Equations:

- balancing equations
- solving equations
- composing algebraic expressions

Factors  
Divisibility  
Multiples  
Square numbers  
Cube numbers  
Powers  
Prime numbers  
Relationship between fractions, decimals and percentages.  
Percentages of amounts.

## Handling Data

Frequency tables  
Bar charts  
Pie charts  
Line Graphs  
Venn Diagrams  
Carroll Diagrams  
Averages:

- Mean
- Mode
- Median
- Range

Probability

## Space, Shape and Measures

Recognition of 2D and 3D shapes (including knowledge of their properties).

Triangles:

- types of triangle (right-angled, isosceles, equilateral, scalene)
- types of angle (acute, obtuse, reflex, right)
- degrees in a triangle (180)

Degrees in a circle/ full rotation (360)

Symmetry

Rotational symmetry

Co-ordinates

Area of compound shapes

Area of triangles

Perimeter of compound shapes

Perimeter of triangles

Ratio and proportion

Estimating measures

Measures:

- kg, g, l, ml, cl, m, cm, mm
- converting from grammes to kilos etc.
- the calendar (days in a year/ leap year/ days in each month etc.
- Hours, minutes, days etc.
- Time (including 24 hour clock)

## Other skills

Reading the question carefully.

Understanding the question.

Speed - your child must work rapidly to complete the exam in the time allotted.

Answering every question - all questions must be answered, whether they are guessed or not.