Emanuel School

10+ (Year 6 entrance) Maths
Emanuel School entrance exam topic list

The list below covers some of the topics which may be tested. Please note that this is a guide and not an exhaustive list.

Problem solving questions will require the willingness to think and preserve with a problem.

Number Skills
- Rounding to the nearest 10, 100 or 1000
- Continuing a sequence with a common difference
- Find factors and multiples of numbers

Fractions and ratios
- Find fractions of shapes and quantities.
- Know the standard conversions between decimals and fractions for half, quarters, tenths and hundredths
- Understand that percentage mean 'parts per 100'
- Solve simple problems involving ratio and direct proportion.

Decimals
- Use decimals in context, e.g. money, lengths
- Order decimals, rounding a decimal to the nearest integer or tenth, add, subtract decimals, multiply and divide decimals by a single digit

Shapes
- Solve problems involving co-ordinates in all four quadrants
- Recognise right angles, perpendicular and parallel lines
- Recognise the shapes: square, rectangle, parallelogram, rhombus and trapezium
- Solve problems involving line and rotational symmetry
- Calculate the position of a shape following a rotation, reflection or translation
- Find the perimeter of simple shapes
- Find areas of rectangles and of simple right angled triangles by halving a rectangle

Units and data
- Use units of money, length, mass, capacity, time, perimeter or area in context
- Convert between metres, centimetres, millimetres and kilometres, or grams and kilograms
- Read scales, including analogue and digital 12 or 24 hour clocks
- Units seconds, minutes, hours, days, weeks in miscellaneous problems
- Interpret tables, lists and charts used in everyday life, including pie charts