Guidance for candidates preparing for the Year 7 Entrance Paper in Mathematics

As the candidates for this exam come from a wide variety of schools which follow different Mathematics courses, we do not expect candidates to have followed a specific syllabus.

The paper is set on what the majority of year 7 pupils should have met. The paper will be about 75% of routine examples on techniques and about 25% will be more stretching examples on the same techniques consisting of either more sophisticated problems, multi-stage problems or problems where the method may not be as clear.

The paper will be non-calculator and take 60 minutes, with 100 marks available.

Candidates will need a pen, pencil, ruler and rubber but will not need either a protractor or a compass.

Calculators should not be brought.

The questions will be taken from the following topics:

Number:

Addition, subtraction, multiplication and division of whole numbers, fractions and decimals.

Simple percentages.

Use of positive indices and square and cube roots.

Number sequences (but not including the nth term).

Ratio and Proportional Reasoning.

Algebra:

Simple algebraic expressions (substitution into, simplifying including simple factorising).

Linear Equations (solution but not formation).

Geometry:

Areas and perimeters of individual or compound shapes.

Volumes of cuboids.

Angle properties (parallel lines and angle sum of triangles and quadrilaterals).

Symmetry and Classifying Triangles and Quadrilaterals.

Names of pentagons and hexagons.

Processing Data:

Averages and range of data.

Statistical Charts (Frequency tables, bar charts, pictograms, interpretation of pie charts with angles given).

Topics link to other syllabuses that may be followed:

For those schools following the Common Entrance Syllabus this may be viewed as the 13+ level 2 syllabus with the omission of:

Forming linear equations

All work with coordinates

Compound units

Simple constructions

Angles in regular polygons beyond quadrilaterals

Transformations

Probability

Scatter diagrams

For those following a UK Key Stage 3 curriculum there is a little more variation but if e.g. the Pearson/ Edexcel Year 7 syllabus has been followed then only the ideas of symmetry may need a little more work.