

# 11+ MATHS FOR YEAR 4, 5 AND 6 PARENTS

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## INTRODUCTION

THE 11+ MATHS SYLLABUS GENERALLY FOLLOWS THAT OF THE NATIONAL CURRICULUM, SO IT IS NECESSARY TO ENSURE THAT YOUR CHILD IS COMFORTABLE WITH ALL OF THE FOLLOWING CONCEPTS: ADDITION, MULTIPLICATION, SUBTRACTION AND DIVISION; FRACTIONS; DECIMALS; TIME; AREA AND PERIMETER; PRIME NUMBERS AND PRIME FACTORS; AVERAGES; DISTANCE, SPEED AND TIME; GRAPHS AND CHARTS; CALCULATING ANGLES; REFLECTION AND ROTATION; PERCENTAGES; SIMPLE RATIO AND PROBABILITY; SEQUENCES AND NUMBER PATTERNS; NETS OF SHAPES AND WORKING OUT THE VOLUME OF CUBES AND CUBOIDS.

THE 11+ MATHS TEST COVERS QUESTIONS BASED ON TOPICS AND CONCEPTS COVERED IN THE KEY STAGE 2 CURRICULUM.

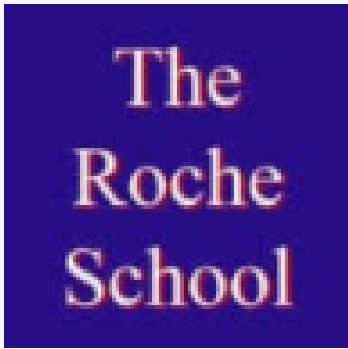
HOWEVER, SOME QUESTIONS ARE ASKED FROM TOPICS NOT COVERED IN THE KS2 CURRICULUM, SUCH AS ALGEBRA AND LOGICAL QUESTIONS AND SOME ARE ASKED IN AN UNFAMILIAR WAY.

ESSENTIALLY, YOUR CHILD WILL NEED STRONG CALCULATION AND COMPUTATIONAL STRATEGIES ACROSS THE FOUR FUNCTIONS OF: ADDITION, SUBTRACTION, MULTIPLICATION AND DIVISION.

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You will find our school's recommended methods for calculating through the year groups listed in the Calculation Policy. Scroll down to find examples of the methods for years 4,5 and 6 in the policy link below.

[Click here for a link to the Roche School Calculation Policy](#)



## 11 Plus Maths Syllabus

### Numbers

(including a strong emphasis on working with fractions, decimals and percentages)

### Algebra

### Measurement

### Geometry

### Statistics

### Ratio & Proportion

### Permutation & Combinations

### Logical Problems

### Train Timetables

### Speed Distance Time

### Age Problems

### Probability

### Temperature

### Network

### Alphabet codes

## Topics

For definitions and explanations of unfamiliar terms, visit: <https://www.mathsisfun.com/>

Read and Write Numbers, Order and Compare Numbers, Place Value, Counting, Rounding, Roman Numbers, Addition, Subtraction, Multiplication, Division, Fractions, **Pattern & Sequences**, Decimals, Percentages, **Multi-Level Word Problems**, Multiples, LCM, Factors, HCF, Prime Numbers, Composite Numbers (A whole number that can be made by multiplying together other whole numbers.), Square Numbers, Cube Numbers, Triangular Numbers (a number that can make a triangular dot pattern.), Even Numbers, Prime Factorization (finding which prime numbers multiply together to make the original number), Word Problems, Unitary Methods (find the value of a single unit and then multiply the value of a single unit to the number of units to get the necessary value), Decimal Manipulation, Number Line, Odd Numbers, Indices (powers)

Algebraic Equations, Simplifying Expressions, Simultaneous Equations, Algebra Inverse Problems, Algebra Dependent Problems, BIDMAS (order of operations), Function Machines, Quadratic equations (any equation containing one term in which the unknown is squared), substitution, Linear Equations, Number Patterns & Sequences, Balancing of equations

Unit Conversions, Currency Conversions, Capacity, Area and Perimeter

Identification of shapes, Shapes, Angles, Perpendiculars, Bisectors, Nets of Solids, Volume, Symmetry, Cubes and Cuboids, Cylinders, Prisms, Rectangle, Circle, Parallelogram, Square, Rhombus, Pythagoras theorem, Trapezium, Compound Shapes, Polygons, Coordinates, Reflection, Translations, Rotations, Lines of Symmetry, Bearings, 3D shapes, 2D shapes, Rotational Symmetry, Triangles, Speed, Slicing, Circumference, Directions

Line Graph, Tables, Bar charts, Charts, Pictograms, Time Graph, Mean Median Mode Range, Tally Marks, Venn Diagrams, Time and Distance Tables, Pie Chart, Data Collection and Presentation

Scale Drawing, Recipe Problems

Seating Arrangement

## Recommended 11+ Maths Books

- Bond 11+: English, Maths, Non-verbal Reasoning, Verbal Reasoning
- 11+ CEM Ages 10-11 Practice Book & Assessment Tests Bundle

Bond 11+ Maths 10 Minute Tests with Answer Support 10-11 Years

### Recommended books for word problems in 11 Plus Exam

- [11+ Essentials Mathematics: Worded Problems Book 1](#)
- [11+ Essentials Mathematics: Worded Problems Book 2](#)
- [Letts 11+ Problem Solving](#)