

CBS SCIENCE & MATHS OLYMPIAD 2024

MATHS SYLLABUS

Grade 1 to 10

Grade - 1

Maths & Mathematical Reasoning

Number sense (2 digit numbers), Addition and Subtraction, Comparisons, Length, Mass, Money, Time, Geometrical Shapes, Solids and Patterns.

Reasoning

Verbal and Non-verbal reasoning. This section includes topics like- blood relation, coding-decoding, Grouping, Analogy, Ranking, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), images, matrix, Out the embedded figure, clock and calendar.

Higher Order Thinking Question

Grade - 2

Section 1: Mathematical Reasoning

Number sense (3 digit numbers), Addition and Subtraction upto 1000, Multiplication and Division, Comparisons, Length, Mass, Money, Time, Volume, Graphs, Lines and Surfaces, Geometrical Shapes, Solids and Patterns, Ascending and descending.

Section 3: Logical Reasoning

Verbal and Non- verbal reasoning. This section includes topics like- blood relation, Coding-decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), Analogy, Ranking, Matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Question

Grade - 3

Maths & Mathematical Reasoning

Numbers System, Additions and Subtraction within 10000, Addition and Subtraction within 10000, Multiplication and Division, Fractions, Decimals Money, Length, Mass, Volume, Bar Graph, Time, Geometry, Area and Perimeter, ascending, Descending order, Factors and Multiples.

Section 3: Logical Reasoning

Verbal and Non- verbal reasoning. This section includes topics like- blood relation, coding- decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), images, matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Questions

Grade - 4

Maths & Mathematical Reasoning

Number system, Operation on Large Numbers, Roman Numerals, Unitary method, Decimals, Fractions, Time, Money, Geometrical figures, Area and Perimeter, Graphs, Symmetry and Tessellations.

Reasoning

Verbal and Non- Verbal reasoning. This section includes topics like- blood relation, coding- decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), images, matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Questions

Grade - 5

Maths & Mathematical Reasoning

Number System, Operation on Large Numbers, Roman Numerals, Factors and Multiples, LCM, HCF, Fractions, Decimals, Average, Percentage, Geometry, Area and Perimeter, Time and temperature.

Reasoning

Verbal and Non- Verbal reasoning. This section includes topics like- blood relation, coding- decoding, direction sense test, number series, problem solving

based on pictures, diagrams and shapes, classification (odd one out), images, matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Questions

Grade - 6

Maths & Mathematical Reasoning

Number System, Operation on Large Numbers, Factors and Multiples, LCM, HCF, Fractions, Decimals, Ratio and Proportion, Percentage, Speed and Time, Algebraic Expressions, Linear equations, Profit and loss, Simplification, Lines and Angles, Triangles, Area and Perimeter, Volume, Graphs and Pie Chart.

Logical Reasoning

Verbal and Non- verbal reasoning. This section includes topics like- blood relation, Coding- decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), images, matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Questions

Grade - 7

Maths & Mathematical Reasoning

Integers and Rational Numbers, Fractions and Decimals, Ratio and Proportion, Comparing Quantities, Powers and Exponents, Algebraic Expression and Linear Equations, Geometry, Perimeter, Area and Volume, Data Handling, Loss, Profit and Simple interest Based Questions.

Reasoning

Verbal and Non- verbal reasoning. This section includes topics like- blood relation, coding- decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), Images, matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Question

Grade - 8

Maths & Mathematical Reasoning

Rational Numbers, Squares and Square Roots, Cubes and Cube Roots, Exponents and Powers, comparing Quantities, Direct and Inverse Proportions,

Linear Equations in One Variable, Algebraic expressions & Identities, Factorisation, Mensuration and Data Handling (Probability). Loss, Profit, and simple Interest & compound interest.

Reasoning

Verbal and Non- verbal reasoning. This section includes topics like- blood relation, coding- decoding, direction sense test, number series, alphabet series, Problem solving based on pictures, diagrams and shapes, classification (odd one out), images,

Matrix, spotting out the embedded figure, cock and calendar.

Higher Order Thinking Questions

Grade - 9

Maths & Mathematical Reasoning

Number Systems, Polynomials, Linear Equations in Two Variables, Euclid's Division Lemma, Lines and Angles, Triangles, Quadrilaterals, Areas of Parallelograms and Triangles, Surface Area and Volume, Heron's Formula, Circles, Coordinate Geometry, Probability, Quadratic Equations.

Reasoning

Verbal and Non- verbal reasoning. This section includes topics like- blood relation, coding- decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification (odd one out), Images, matrix, spotting out the embedded figure, clock and calendar.

Higher Order Thinking Questions

Grade - 10

Maths & Mathematical Reasoning

Polynomials, Quadratic Equations, Arithmetic Progressions, Coordinate Geometry, Introduction to Trigonometry, Trigonometric Identities and Some Applications of Trigonometry, Circles, Areas Related to Circles, Surface Area and Volume, Statistics and Probability.

Reasoning

Verbal and Non-verbal reasoning. This section includes topics like- blood relation, Coding- decoding, direction sense test, number series, alphabet series, problem solving based on pictures, diagrams and shapes, classification

(odd one out) images, matrix, spotting out the embedded figure, clock and calendar

Higher Order Thinking Questions

