



THE INTERNATIONAL SCHOOL BANGALORE GRADE 6 – MATHEMATICS ENTRANCE EXAMINATION DETAILS

1. SYLLABUS OUTLINE

A student applying to Grade 6 is expected to have sufficient knowledge and understanding of the following topics, as per a Grade 5 level curriculum:

I – Numbers and Number Sense

- Count by thousands, ten thousands, and hundred thousands, starting at any number from 1 to 999,999
- Read and write numbers to at least 1,000,000. Compare and order numbers from 0 to 1,000,000 using the words equal to, greater than, less than, greatest, or least and recording the results of comparisons with the symbols $>$, $=$, and $<$ when appropriate.
- Read, write, compare, and order all whole numbers, fractions, mixed numbers and decimals using multiple strategies (e.g. symbols, number line, and place value concepts)
- Identify and use place value positions of whole numbers and decimals to hundredths.
- Determine decimal equivalents or approximations of common fractions (i.e., $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 whole)
- Relate equivalent fractions and decimals with and without models, including locations on a number line.
- Use models and drawings and find common denominators to compare fractions with unlike denominators.
- Round, order, and compare, using symbols, decimals to the tenths, hundredths, and thousandths place.
- Determine the equivalency among decimals, fractions, and percents (e.g., $49/100 = 0.49 = 49\%$).
- Determine totals, differences, and change due for monetary amounts in practical situations.
- Describe real- world situations using positive and negative numbers.
- Add, subtract, multiply, and divide (with and without remainders) using non-negative rational numbers.
- Add, subtract, multiply, and divide fractions, decimals to hundredths, using concrete models or drawings and strategies based on place value.
- Model addition, subtraction, Multiply and Divide of mixed numbers with and without regrouping and fractions with like and unlike denominators.
- Model and distinguish between factor and multiple and prime and composite numbers.
- Recall from memory multiplying and dividing by 10, 100, and 1,000 etc.
- Select and/or use an appropriate operation(s) to show understanding of addition and subtraction of non-negative decimals and/or fractions.

- Introduction to brackets
- Order of operations (BODMAS)

II – Data Handling

- Use a variety of graphical representations including line graphs, bar graph and pictograph to organize and represent data.
- Compare data and interpret quantities represented on tables and graphs, including line graphs, line graphs, Bar graph and pictograph to make predictions, and solve problems based on the information.
- Make predictions and draw conclusions based on data collected from a sample group.

III – Geometry and Measurements

- Identify, draw, and label points, lines and angles (classifications- parallel lines, intersecting lines, and perpendicular lines) (adjacent, vertical, complementary, and supplementary etc)
- Understanding of perimeter and area of rectangles, squares and triangles.
- Determine equivalent periods of time, including relationships between and among seconds, minutes, hours, days, months, and years.
- Estimate and convert units of measure for weight and volume/capacity within the same measurement system. (metric)
- Select and apply appropriate units for measuring length, mass, volume, and temperature in the metric system.
- Convert units within a given measurement system to include length, weight/mass, and volume.

IV – Patterns

- Identify a rule for a pattern involving addition, subtraction, multiplication or division.
- Identify, describe, and represent patterns and relationships in the number system, including triangular numbers and perfect squares.
- Solve problems by finding the next term or missing term in a pattern using real world situations.
- Solve equations with whole numbers using a variety of methods, including inverse operations, mental math, and guess and check.
- Complete number sentences with the appropriate words and symbols including $\geq$, $\leq$, $\neq$

2. QUESTION PAPER PATTERN

- **Nature of Questions:** Multiple Choice Questions (MCQs)
- **Number of Questions:** 25
- **Duration:** 40 minutes

3. Links to Past Question Paper

[Grade 6 Entrance question paper.pdf](#)

[Grade 6 Entrance Answer Key.pdf](#)