

SCO INTERNATIONAL OLYMPIAD

GRADE 8 SYLLABUS

SCO INTERNATIONAL MENTAL ABILITY OLYMPIAD

Official Syllabus | Class 8

Designed from Class 8 reasoning-skill pathways and aligned with SCO preparation, practice, reporting, and future-ready analytical growth.

- Chapter-wise official syllabus for Class 8 Mental Ability preparation
- Learning outcomes focused on logical, verbal, non-verbal, and applied reasoning
- Useful for schools, teachers, parents, and students preparing for SCO Olympiad

Series	Coding	Alphabet	Puzzles	Calendar
Ranking	Analogy	Cubes	Images	Data Suff.

SCO International Mental Ability Olympiad- Class 8 Official Syllabus

Learning Purpose

- Build accurate observation, pattern recognition, logical deduction, structured problem solving, and time-efficient reasoning.
- Prepare learners for verbal, non-verbal, mathematical, and real-world reasoning challenges.
- Strengthen higher-order thinking through assertion-reason, case-based, and achievers-style questions.

Chapter-wise Syllabus

Chapter No.	Chapter Name	Learning Focus	Practice Outcomes
1	Series Completion	Identify numeric, alphabetic, mixed and visual patterns; predict missing terms using position and difference logic.	Find missing terms in number, alphabet, alphanumeric, and figure series.
2	Coding and Decoding	Decode mirror letters, shifting rules, substitution patterns, symbolic codes and multi-step codes.	Decode one-step and two-step rules with accuracy under time pressure.
3	Alphabet Test	Use alphabet position, reverse order, dictionary order, letter ranking and alphabet-based puzzles.	Use alphabet positions and reverse alphabet logic without confusion.
4	Mathematical Operations	Apply symbol-based operations, arithmetic logic and equation-based reasoning.	Translate symbols into operations and solve correctly.
5	Puzzle Test	Solve arrangement, condition-based and constraint-based puzzles using elimination and structured reasoning.	Use tables and elimination grids to solve constraints.
6	Calendar Test	Determine weekdays, leap-year effects, date intervals and month-based reasoning.	Compute weekdays and dates using modular reasoning.
7	Number - Ranking - Time Sequence	Interpret positions from either end, time order, sequence placement and comparative ranks.	Solve left-right, rank, order, and time sequence problems.
8	Arithmetical Reasoning	Solve real-life reasoning problems involving ratios,	Apply numerical reasoning to real-life word problems.

		averages, money, speed, age and logical arithmetic.	
9	Syllogism	Interpret statements and conclusions using Venn logic and deductive reasoning.	Validate conclusions using set-based thinking.
10	Non-Verbal Series	Recognize rotation, reflection, alternation, pattern movement and missing visual terms.	Track figure transformations across a sequence.
11	Analogy	Identify relationships between numbers, words, letters, figures and situations.	Recognize equivalent relationships across domains.
12	Classification	Find the odd one out using conceptual, numerical, alphabetic and visual properties.	Separate the odd item using clear logical criteria.
13	Blood Relations	Map family structures, coded relationships and multi-generation relationship chains.	Construct family trees from coded and direct clues.
14	Cubes and Dices Test	Analyze painted cubes, cube cutting, dice positions, opposite faces and visible surfaces.	Count painted cubes and infer dice face positions.
15	Statements	Evaluate statements, arguments, assumptions, courses of action and logical conclusions.	Judge assumptions, arguments, conclusions, and actions.
16	Images	Interpret mirror images, water images, embedded figures, folding, unfolding and figure completion.	Handle mirror, water, folded, unfolded, and embedded figures.
17	Data Sufficiency	Decide whether individual or combined statements provide enough information to answer a question.	Evaluate sufficiency of each statement and combined statements.

Recommended Preparation Roadmap

Stage 1: Skill Foundation

Revise alphabet positions, number operations, basic patterns, dictionary order, and direction of movement in figures.

Stage 2: Logical Application

Practice coding-decoding, puzzles, ranking, blood relations, mathematical operations, and syllogism with timed sets.

Stage 3: Visual Reasoning

Solve non-verbal series, image rotation, mirror image, cubes, dice, folding, and embedded-figure questions.

Stage 4: Exam Readiness

Attempt full-length mixed papers, review mistakes, and prepare separate notes for recurring reasoning patterns.

Assessment Blueprint

Section	Question Type	Suggested Weightage
General Reasoning	Series, Coding, Alphabet, Calendar, Ranking, Arithmetic Reasoning	40%
Logical Reasoning	Syllogism, Statements, Data Sufficiency, Puzzles	25%
Non-Verbal Reasoning	Images, Non-Verbal Series, Cubes and Dices	20%
Achievers Section	Integrated, multi-step and higher-order reasoning	15%