

SCO INTERNATIONAL OLYMPIAD

GRADE 9 SYLLABUS

SCO International Mental Ability Olympiad

Designed from Grade 9 Mental Ability pathways and aligned with SCO's platform flow for guided preparation, practice, reporting, and future-ready academic growth.

- grade-fit syllabus for reasoning, logic, pattern recognition and non-verbal skills
- chapter-wise learning outcomes for schools, teachers, parents and students
- supports preparation through practice, reporting and future-ready analytical development

Maths	English	Science	Mental Ability	Finance Knowledge
AI	Entrepreneurship	GK	Coding	Life Skills

SCO International Mental Ability Olympiad - Class 9 Official Syllabus

The Class 9 Mental Ability Olympiad syllabus is designed to strengthen logical reasoning, analytical thinking, pattern recognition, verbal reasoning, spatial reasoning, and decision-making skills. The syllabus supports both school-level preparation and international-style problem solving.

Chapter No.	Chapter Name	Core Learning Outcomes
1	Coding - Decoding	Symbol rules, alphabet shifts, mirror codes, matrix coding, reverse coding and mixed rules.
2	Series Completion	Number, alphabet, mixed, conditional and figure series; identifying hidden patterns.
3	Alphabet Test	Alphabet positions, letter order, dictionary order, reverse alphabet and positional reasoning.
4	Mathematical Operations	Substitution of signs, coded operations, inequalities and equation-based reasoning.
5	Puzzle Test	Arrangements, professions, seating, ordering, scheduling and clue-based reasoning.
6	Calendar and Clock Test	Date/day calculation, leap-year awareness, clock-hand positions and time-angle logic.
7	Number - Ranking - Time Sequence	Rank conversion, position from left/right, order, timing and sequence comparison.
8	Arithmetical Reasoning	Age, average, ratio, transaction, rate, and structured arithmetic problems.
9	Syllogism	Statements, conclusions, Venn logic, possibility and validity of inference.
10	Non-Verbal Series	Shape progression, rotation, reflection, folding, completion and spatial continuation.
11	Analogy	Pair relationships in words, numbers, figures and applied reasoning contexts.
12	Classification	Odd-one-out problems based on property, function, category or structure.
13	Blood Relation	Family tree, coded relations, generations and relation inference.
14	Cubes and Dices Test	Painted cubes, visible faces, opposite sides, dice views and net-based reasoning.
15	Statements of Logical Reasoning	Conditional statements, contrapositive reasoning, cause-effect and assumptions.
16	Images	Mirror images, water images, embedded figures, paper folding and shape recognition.
17	Data Sufficiency	Deciding whether one or more statements provide enough information to answer.
18	Verbal Reasoning	Word order, vocabulary logic, language-based patterns and critical reasoning.

Learning Stage	Focus
Foundation Skills	Alphabet order, basic series, simple coding, dictionary order, ranking, direction of logic, and straightforward classifications.
Applied Reasoning	Puzzle-solving, clock/calendar reasoning, arithmetical reasoning, blood relations, coded relationships, and data sufficiency.
Visual & Spatial Reasoning	Non-verbal series, image transformation, cube and dice analysis, embedded figures, mirror images and figure classification.
Achievers Preparation	Multi-step conditions, mixed-rule coding, advanced syllogism, higher-order data questions and reasoning under constraints.

Assessment Blueprint

Section	Question Range	Expected Skill Focus
A - General Mental Ability	1-20	Core coding, series, alphabet, analogy, classification and arithmetical reasoning
B - Applied Reasoning	21-30	Calendar, clock, puzzle, ranking, syllogism, blood relation and data sufficiency
C - Visual / Case Reasoning	31-40	Non-verbal, images, cube-dice, table-based reasoning and short case analysis
D - Achievers Section	41-50	Higher-order multi-step reasoning and competition-standard logic tasks

Recommended Preparation Approach

- Practise one reasoning category at a time before mixing categories.
- Maintain a mistake log for alphabet positions, direction of comparison, and arithmetic steps.
- For non-verbal questions, write the transformation rule first: rotation, reflection, side count, shading or position.
- For syllogism and data sufficiency, avoid assumptions that are not directly supported by the statements.
- For clock/calendar questions, calculate systematically rather than estimating from memory.