

SYLLABUS AND MARKING SCHEME FOR SOF OLYMPIADS

GRADE 4

About International Mathematics Olympiad (IMO)

One of the popular Math Olympiad, conducted by SOF, the **IMO** is conducted at two levels

Level 1: The first level of the exam is organized in the respective schools of the participants during school hours only.

- The Level 1 exam is an objective-type test having duration of 60 minutes comprising of 35 objective-type questions for classes 1 to 4 and 50 objective-type questions for classes 5 to 12.
- The exam consists of four sections:
Section-1: Logical Reasoning
Section-2: Mathematical Reasoning
Section-3: Everyday Mathematics
Section-4: Achievers Section
- There are separate question papers for each and every class.
- The medium of the exam is English.
- CBSE, ICSE/ISC and other State Board syllabus is followed for the setting of test papers.
- The exam is conducted during school hours only

Level 2: The Level 2 is conducted for students of classes 3 to 12. The qualifiers to second round would include the following:

- Top 5% of candidates class wise that appear for the 1st level exam. Due weightage to marks scored in different sections will be given. Each section is accorded with a separate weightage.
- Zone wise top 25 rank holders class wise.
- Class topper where at least 10 students from a class appear in the exam & have scored 50% qualifying marks.

SOF IMO Syllabus and Marking Scheme

Class	Section	No. of Questions	Marks/Question	Total Marks
1 to 4	Logical Reasoning	10	1	10
	Mathematical Reasoning	10	1	10
	Everyday Mathematics	10	1	10
	Achievers Section	5	2	10
	Grand Total	35		40
5 to 12	Logical Reasoning	15	1	15
	Mathematical Reasoning	20	1	20
	Everyday Mathematics	10	1	10
	Achievers Section	5	3	15

CLASS 4

Section – 1 : Patterns, Alphabet Test, Coding-Decoding, Ranking Test, Mirror Images, Geometrical Shapes and Solids, Embedded Figures, Direction Sense Test, Days and Dates & Possible Combinations, Analogy and Classification.

Section – 2 : Numerals and Number Names, Number Sense (5-digit numbers), Computation Operations, Fractions, Length, Weight, Capacity, Time, Money, Geometry, Perimeter of Various Shapes, Symmetry, Conversions, Data Handling

Section – 3 : The Syllabus of this section will be based on the Syllabus of Mathematical Reasoning.

Section – 4 : Higher Order Thinking Questions - Syllabus as per Section 2.

DETAILED SYLLABUS

GRADE 4

Online Math Olympiad Class Syllabus for Grade 4

Olympiads are the stepping stones to achieve better results in the competitive world that lies ahead in the life of the child. Math Olympiad examinations help students to improve their mathematical skills along with their analytical and problem solving abilities.

Hence, Olympiad Success Live has designed the course for Math Olympiad for class 2 in such a way that the foundation of the child is built up. For this, we have done great efforts in finding the tutor for class 2 Math Olympiad with relevant background and experience.

If you are interested in purchasing this course, then please Enrol Now. You will be redirected to the batch detail page, wherein you can see all the details like batch start and demo dates, fees and the registration link related to Math Olympiad for class 2 course.

IMO

Syllabus

Numerals, Number Name and Number sense

- Numbers and numeration
 - To write number name for numeral and vice versa (Up to 5-digits)
 - Place value and face value
 - Indian place value chart
 - Comparison of numbers
 - Rounding off the numbers (Nearest 10, 100 and 1000)

Roman Numerals

- To convert roman numeral into number (Up to 500)
- Write roman numeral for number
- International place value chart

Computations Operations

- Addition and subtraction (Up to 5-digits)
 - Properties of addition and subtraction

- Addition and subtraction using estimation
- Multiplication and division (By 3-digit number)
 - Properties of multiplication and division
 - Estimation of product and quotient
- Factors and multiples
 - Definition of Even, odd, prime, co-prime, composite and twin-prime numbers
 - Rules of divisibility by 2, 3, 4, 5, 9 and 10
 - To find factors and multiples of numbers

Geometry

- Closed plane figures (Triangle, rectangle, square, rhombus, parallelogram and trapezium)
- Line segment, ray and line
- Circle and terms related to circle (Centre, radius, diameter, chord and circumference of the circle)

Fractions

- Fraction
 - Definition of fraction
 - Types of fractions (Like, unlike, proper, improper, unit, mixed and equivalent fraction)
 - Ordering fraction
- Comparison of fractions
 - Fractions with same numerators
 - Fractions with same denominators
 - Fractions with different numerators and denominators
- Conversions
 - Converting a mixed fraction into an improper fraction
 - Converting an improper fraction into a mixed number
- Operations of fractional numbers
 - Addition of like and unlike fractions
 - Subtraction of like and unlike fractions
 - Addition of a whole number and a fractional number
 - Subtraction of a whole number and a fractional number

- Addition and subtraction of mixed fractions
- Properties of addition and subtraction of fractions
- Use of fractions in daily life

Measurements Length, Mass, Capacity and Volume

- Length
 - Conversions of mm-cm-dm-m-km and vice versa
 - Addition and subtraction of length
 - Multiplication and division of length
- Mass
 - Conversion of units (mg-cg-dg-g-kg)
 - Addition and subtraction of weight
- Capacity and volume
 - Conversion of units (ml-cl-dl-l-kl)
 - Addition and subtraction of capacity
 - Multiplication and subtraction of capacity

Measurements of Time

- Time notations
- Time calculations
- Conversions of time
- Day, week, month and year
- Duration of time
- Calculation of days
- Calendar

Measurements of Money

- Converting rupees into paise and vice versa
- Addition and subtraction of money
- Multiplication and division of money

Geometry Perimeter and area of Various Shapes

- Closed curve
- Perimeter of triangle, square and rectangle
- Area of square and rectangle

Data Handling and Symmetry

- Definition of data
- Bar graph, pictograph and pie chart
- Line of symmetry and mirror image

Measurement of Temperature

- Definition of temperature
- Units of temperature (Degree Celsius and degree Fahrenheit)
- Body temperature

International English Olympiad (IEO)

We help students of class 1 to 10 in preparation of SOF IEO exam and courses through sample question and practice papers.

About International English Olympiad (IEO)

The exam is a written objective-type test having a duration of 60 minutes comprising 35 objective-type questions for classes 1 to 4 and 50 objective-type questions for classes 5 to 12.

SOF IEO Syllabus and Marking Scheme

Class	Section	No. of Questions	Marks/Question	Total Marks
1 to 4	Word & Structure Knowledge	30	1	30
	Reading			
	Spoken & Written Expression			
	Achievers Section	5	2	10
	Grand Total	35		40
5 to 12	Word and Structure Knowledge	45	1	45
	Reading			
	Spoken and Written Expression			
	Achievers Section	5	3	15
	Grand Total	50		60

CLASS 4

Section – 1: Collocations, Spellings, Words related to animals, Household things, Clothes, Basic emotions, Food and Animals, etc. Synonyms, Antonyms, Nouns, Pronouns, Verbs, Adverbs, Adjectives, Contractions, Articles, Prepositions, Conjunctions, Tenses, Punctuations and Jumbled words, Basic Questions etc.

Section – 2: Search for and retrieve information from various text types like stories, Anecdotes, etc., Understand information through pictures, Time-table format, etc., Acquire broad understanding of and look for specific information in short texts like messages, Invitations etc.

Section – 3: Ability to understand situation-based variations in functions like apology, greeting, introduction, request, etc.

Section – 4: Higher Order Thinking Questions - Syllabus as per Sections 1, 2 and 3.

IEO detailed Syllabus

IEO

Syllabus

Chapter 1

Assorts

Word Power & Jumbled Words and Sentence Creation: Collocations, Spellings, Words related to animals, household things, clothes, basic emotions, food, animals, etc

- Alliteration and simile
- words with common letter strings but different pronunciations
- anagrams
- Prefix and Suffix - Identify base words, prefixes and suffixes
- Determine the meaning of a word with pre-, re- or mis-
- Use the prefixes pre-, re- and mis-
- Determine the meaning of a word with -ful or -less
- Determine the meaning of a word with -ly or -ness
- Determine the meaning of a word with -able or -ment
- Proverbs, Common idioms, adages
- Sentence and its types. Use a wider variety of sentences including simple, compound and some complex sentences.
- Is the sentence declarative, interrogative, imperative or exclamatory?

- Identify the complete subject of a sentence
- Identify the complete predicate of a sentence
- Identify the simple subject or predicate of a sentence
- Is it a complete sentence or a fragment?
- Is it a complete sentence or a run-on?
- Is it a complete sentence, a fragment or a run-on?
- Is the sentence simple or compound?

Chapter 2

Synonyms and Antonyms

- Synonyms and Antonyms

Chapter 3

Nouns and Pronouns

- Kinds of Nouns - common, proper, collective, abstract, and material
- Classification of Nouns – countable and uncountable
- Subject and Predicate(*subject consisting of many words*)
- Determiners/ Quantifiers
- Pronoun - *Personal, relative, possessive, reflexive, demonstrative, interrogative*
- Which word is a noun?
- Identify nouns
- Identify nouns – with abstract nouns
- Identify common and proper nouns
- Form regular plurals with -s, -es and -ies
- Use regular plurals with -s, -es and -ies
- Form regular plurals with -s, -es, -ies and -ves
- Use regular plurals with -s, -es, -ies and -ves
- Is the noun singular or plural?
- Form and use irregular plurals
- Identify plurals, singular possessives and plural possessives
- Form the singular or plural possessive
- Identify and correct errors with plural and possessive nouns
- Identify personal pronouns

- Choose between subject and object personal pronouns
- Replace the noun with a personal pronoun
- Compound subjects and objects with ""I"" and ""me""
- Identify possessive pronouns
- Use possessive pronouns
- Choose between personal and reflexive pronouns
- Use reflexive pronouns
- Identify relative pronouns
- Use relative pronouns: who, whom, whose, which and that

Chapter 4

Verbs and adverbs

- Onomatopoeia
- Subject-verb agreement
- Use action verbs
- Identify action verbs
- Identify main verbs and helping verbs
- What does the modal verb show?
- Use the correct modal verb
- Is the subject singular or plural?
- Use the correct subject or verb
- Pronoun-verb agreement
- Use the correct subject or verb – with compound subjects
- Which sentence is in the regular past tense?
- Identify verbs in the regular past tense
- Form and use the regular past tense
- Identify the irregular past tense
- To be: use the correct form
- To have: use the correct form
- Is the sentence in the past, present or future tense?
- Change the sentence to future tense
- Use the progressive verb tenses
- Form the progressive verb tenses

- Choose between the past tense and past participle
- Form the perfect verb tenses
- Use the perfect verb tenses

Adverbs- manner, time, place/ Use of 'firstly', 'then', 'later', 'finally', etc. to link sentences to indicate passage of time and provide a sense of closure

- Does the adverb tell you how, when or where?
- Identify adverbs
- Use relative adverbs
- Choose between adjectives and adverbs
- Is the word an adjective or adverb?
- Use adjectives to compare
- Spell adjectives that compare
- Use adjectives with more and most
- Use adverbs to compare

Chapter 5

Adjectives

- Adjectives-Quality, Quantity (*definite, indefinite*), Demonstrative, Possessive, Interrogative
- Explore degrees of intensity in adjectives, e.g., *cold, tepid, warm, hot*
- Recap of adjectives (Adjectives- quality, quantity (number), shape, color
- Degrees of adjectives)
- Does the adjective tell you what kind or how many?
- Identify the adjective that describes the noun
- Identify adjectives
- Order adjectives

Chapter 6

Contractions

- Pronoun-verb contractions
- Contractions with "not"

Chapter 7

Articles and Prepositions

- Preposition and Prepositional Phrases
- Some common prepositions are about, above, across, after, along, around, at, behind, below, beside, by, down, during, for, from, in, inside, into, near, of, on, outside, over, through, to, under, up, and with

Chapter 8

Conjunctions

- Recapitulation of Conjunctions;
- Use a wider variety of linkers in an increasing range of sentences and to join sentences, e.g. if, although.
- Compound sentences
- Use coordinating conjunctions
- Use and identifying subordinating conjunctions

Chapter 9

Punctuations

- Punctuation –Comma, Quotation Marks (*Inverted commas and Apostrophe*).
- Use a range of beginning/end-of sentence punctuation with accuracy.
- Identify all the punctuation marks and respond to them when reading. Use of commas to mark out meaning within sentences.
- Use of the apostrophe to show possession
- Capital letters for appropriate words in titles. Apostrophe to show singular possession and knows the difference between plurals and possessives
- Commas with direct addresses and after introductory words
- Capitalising the names of people and pets and titles of respect
- Capitalising days, months and holidays
- Capitalising the names of places and geographic features
- Capitalising proper adjectives, nationalities and languages
- Greetings and closings of letters
- Formatting and capitalising titles

Chapter 10

Tenses- Simple Present and Continuous

- Tenses-Simple, Continuous, Perfect-Present, Past, Future
- Explore the past, present, and future tenses of verbs.

- Practice with varying tenses within texts, e.g. in dialogue
- Direct and Indirect Speech

Chapter 11

Comprehension (Prose and Poetry): Search for and retrieve information from various text types like stories, Anecdotes, etc.

- (*newspapers and magazines*): Read to check punctuations and syntax in a given text

Chapter 12

Understand information through pictures, Time-table format, etc.

Chapter 13

Spoken and Written Expressions: Acquire broad understanding of and look for specific information in short texts like messages, Invitations, etc.

- Use paragraphs to organize and sequence ideas.
- Slogan Writing

Chapter 14

Spoken and Written Expression: Ability to understand situation-based variations in functions like apology, greeting, introduction, request, etc.

- Dialogue Writing: Complete the given dialogue; emphasise on the use of vocabulary and varying tenses within texts.
- Diary Entry – apply the knowledge of punctuation and grammar while writing
- Organise and structure meaningful sentences in a sequential manner

National Science Olympiad (NSO)

About National Science Olympiad (NSO)

NSO is conducted at two levels:

Level 1: The first level of the exam is organized in the respective schools of the participants during school hours only.

- The level 1 exam is an objective-type test having a duration of 60 minutes and comprising 35 objective-type questions for classes 1 to 4 and 50 objective-type questions for classes 5 to 12.
- The exam consists of three sections for classes 1 to 10:

Section-1: Logical Reasoning

Section-2: Science

Section-3: Achievers Section

Level 2: The level 2 is conducted for students of classes 3 to 12. The qualifiers to second round would include the following:

- Top 5% of candidates class wise that appear for the 1st level exam. Due weightage to marks scored in different sections will be given. Each section is accorded with a separate weightage.
- Zone wise top 25 rank holders class wise.
- Class topper where at least 10 students from a class appear in the exam & have scored 50% qualifying marks.

SOF NSO Syllabus and Marking Scheme

Class	Section	No. of Questions	Marks/Question	Total Marks
1 to 4	Logical Reasoning	5	1	5
	Science	25	1	25
	Achievers Section	5	2	10
	Grand Total	35		40
5 to 10	Logical Reasoning	10	1	10
	Science	35	1	35
	Achievers Section	5	3	15
	Grand Total	50		60

CLASS 4

Section – 1: Patterns, Alphabet Test, Coding-Decoding, Mirror Images, Embedded Figures, Geometrical Shapes and Solids, Ranking Test, Direction Sense Test, Days and Dates & Possible Combinations, Analogy and Classification.

Section – 2: Plants, Animals, Food and Digestion, Clothing, Matter and Materials, Force, Work and Energy, Our Environment, Earth and Universe.

Section – 3: Higher Order Thinking Questions - Syllabus as per Section – 2.

NSO Detailed Syllabus

Olympiads are the stepping stones to achieve better results in the competitive world that lies ahead in the life of the child. Science Olympiad examinations help students to improve their analytical and problem solving abilities.

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NSO

Syllabus

Plants

- Parts of plants: Roots, leaves, stems and flowers; their function, uses and modification
- Roots: Kinds of roots, their functions and examples
- Shoots: Functions of the stem
- Structure of leaf
- Functions of the leaf: Photosynthesis, transpiration process (in simple language)
- Iodine test for starch in leaves
- Products obtained from plants such as food items, wood, coir, rubber, fibres
- Pollination: Dispersal of seeds due to various factors
- Growth of plants is affected by the temperature of a place, water and light, benefits of various plants
- Adaptation in plants
- Need for adaptation in plants:
 - Examples of adaptation of plants on land with examples
 - Examples of adaptation of plants in water with examples
 - Examples of adaptation of plants in desert with examples

- Examples of adaptation of plants in hilly areas with examples

Animals

- Classification of animals - mammals, reptiles, birds, insects and aquatic
- Animal behaviour –individual (aestivation and hibernation), in herds and groups, human interaction
- Animals that give birth to babies
- Animals that lays eggs
- Some animals have skeletons and muscles like human beings inside their bodies
- Adaptation in animals
- Need for adaptations in animals, reasons of adaptations
- Examples of adaptations in animals: on land, in water
- Adaption in modification of body parts in herbivores, carnivores, omnivores

Food and Digestion

- Nutrients found in food: Proteins, carbohydrates, fats, vitamins, minerals and water
- Balanced diet, cooking and preserving food
- Kind of teeth in the mouth and location
- Structure and Functions of each kind of tooth
- Diagram with labelling of parts of a tooth, number of teeth of each kind in: infants and adults
- Care of Teeth and Gums: Causes of cavities/ deficiencies and steps to prevent them
- Kinds of microbes: Bacteria, viruses, protozoans and fungi, useful microbes
- Need for regular check-up to keep teeth healthy; importance of healthy dental care habits
- Role of food in the development of healthy teeth and gums
- Organs of the digestive system (mouth, food pipe, stomach, liver, small and large intestine, rectum, anus)
- Functions of various organs in digestion, need for chewing food well, and for regular bowel movement, need for water
- Organs of the excretory system and their functions
- Healthy habits related to digestion and excretion

Clothing

- Materials used for making clothes: Natural fibre, synthetic fibre
- Clothes and weather

- Clothes and work
- Care of clothes

Matter and Materials

- Definition of matter
- What is matter made up of?
- States of matter
- Definition- solvent, solute and solution, giving examples of each (simple language)
- Soluble and insoluble substances giving examples of each (solubility in oil, water)
- Method of separation: sedimentation, decantation, filtration, evaporation
- Forms of Matter: Solids liquids and gases
- Change of state
- Materials used in construction; specific properties, e.g., hard, soft, shiny, and rough
- Categorization of materials according to their properties - how materials change when they are heated and cooled; Some materials are effective in preventing sound from travelling through them

Force, Work and Energy

- The concept/meaning of push and pull and difference between the two
 - Examples of push and pull
 - Force: meaning in simple terms, changes shape of objects and direction
 - Meaning of various types of forces – muscular, gravitational, magnetic and frictional
- Simple machines – Lever, pulley and inclined plane
- Energy and its various forms
 - Heat energy
 - Light energy
 - Electrical energy
 - Motion energy
 - Sound energy
- Friction – meaning, concept
 - How to reduce friction (oil, powder)
 - Uses of friction
 - Harmful effects of friction

- Examples of friction

Our Environment

- Major natural sources of water of your area, potable water, water borne diseases
 - Water cycle and its different forms (evaporation, condensation, fog, dew, smog)
 - Water purification
 - Safe handling and storage of potable water at house hold level
- Natural resources - renewable and nonrenewable and their conservation
- Pollution
 - Effects of air pollution: Breathing problems, global warming
 - Effects of water pollution: Diseases, life in water
 - Effects of soil pollution
 - Acid rain
- Some properties of air i.e., occupy space, weight, expands, no colour
 - Composition of air (gases + water vapour)
 - Process of breathing and burning
 - Causes of air pollution – dust, smoke, spitting (germs/bacteria, Virus)
 - Preventive measures to keep air clean

Earth and Universe

- Stars
- The solar system: Sun, planets, dwarf planets
- The earth and how does it move?
- Effect of earth's movement
 - Day and night
 - Seasons
 - The poles
 - The equator

REASONING

Syllabus

- Patterns
- Analogy and Classification
- Mirror Images and Water Images
- Direction Sense Test
- Ranking Test, Alphabet Test and Logical Sequence of Words
- Puzzle Test
- Coding - Decoding
- Geometrical Shapes and Solids
- Embedded Figures
- Days and Dates & Possible Combinations