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SCO INTERNATIONAL OLYMPIAD

CLASS 2 MATHS SYLLABUS

A comprehensive guide for schools, teachers, parents, and students

Designed from Class 2 Maths syllabus pathways and aligned with SCO's platform flow for guided preparation, practice, reporting, and future-ready academic growth.

- age-fit learning guidance for Class 2 / early primary learners globally
- subject-focused pathway across addition, subtraction, multiplication, division, shapes, time, money, data and reasoning
- preparation roadmap, classroom implementation ideas, and future-benefit framing for mathematical confidence

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

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SCO International Maths Olympiad - Class 2 Syllabus

Purpose of the Class 2 Maths Syllabus

This syllabus builds strong early mathematical confidence through number sense, operations, measurement, money, time, shapes, data reading and logical reasoning. It supports students in solving classroom and real-life problems using clear steps, pictures, patterns and mathematical vocabulary.

Designed for students, teachers and schools, this document gives a quick-glance pathway, chapter-wise learning outcomes, classroom use ideas, assessment focus and a practical preparation roadmap for the SCO International Maths Olympiad.

Quick Syllabus Map

Chapter	Chapter Name	Quick Note
1	**Addition and Subtraction**	Build fluency in adding and subtracting two- and three-digit numbers using place value, regrouping, number lines and real-life word problems.
2	**Multiplication**	Understand multiplication as repeated addition, equal groups and skip counting; solve simple multiplication problems with objects and arrays.
3	**Division**	Understand division as sharing equally and grouping; solve simple division problems using counters, drawings and number facts.
4	**Number Comparison**	Compare and order numbers using place value, greater than, less than and equal to symbols, and reasoning from digit positions.
5	**Length**	Measure, compare and estimate length using standard and non-standard units; read simple ruler-based measurements.
6	**Weight and Capacity**	Compare heavy/light and more/less capacity; connect measurement language to everyday objects and containers.
7	**Time and Money**	Read clocks to common intervals, understand days/weeks, identify coins/notes and solve simple buying and change problems.
8	**Lines**	Recognize straight, curved, horizontal, vertical and slanting lines and connect them to shapes and real-world objects.
9	**Shapes and Solids**	Identify 2D shapes and 3D solids; describe sides, corners, faces, edges and simple visual patterns.
10	**Pictographs**	Read picture-based data displays, count symbols, compare quantities and answer simple data questions.
11	**Logical Reasoning**	Use patterns, analogies, odd-one-out, sequencing and step-by-step thinking to solve age-fit reasoning problems.

How This Syllabus Supports Students, Teachers and Schools

For Students	For Teachers	For Schools
Understand each topic through simple examples, practice steps, visual thinking and daily-life maths.	Plan concept teaching, class practice, revision tasks, worksheets and reasoning activities from one pathway.	Use a clear grade-wise roadmap for enrichment, Olympiad preparation, parent communication and skill tracking.

Chapter-Wise Learning Notes and Outcomes

Chapter 1	**Addition and Subtraction** **Chapter Note:** Students strengthen number sense by joining, separating and comparing quantities. This chapter connects arithmetic to daily situations such as toys, books, fruits, classroom items and simple transactions. **Learning Outcomes:** Add and subtract within age-fit number ranges using place value.; Use regrouping and mental strategies where appropriate.; Solve one-step word problems with correct operation choice. **Suggested Activities:** Number stories using classroom objects | Number-line jumps | Find the missing addend games
Chapter 2	**Multiplication** **Chapter Note:** Students learn multiplication as equal groups and repeated addition. Visual arrays and skip counting help students see why multiplication is faster than adding the same number repeatedly. **Learning Outcomes:** Represent multiplication using equal groups and arrays.; Recall simple multiplication facts through patterns.; Solve everyday equal-group problems. **Suggested Activities:** Array drawings with dots | Skip-counting songs | Equal-groups objects activity
Chapter 3	**Division** **Chapter Note:** Students understand division as equal sharing and equal grouping. The focus stays on practical sharing situations and visual methods before abstract symbols become difficult. **Learning Outcomes:** Share quantities equally among groups.; Use drawings/counters to divide simple numbers.; Connect division with multiplication facts. **Suggested Activities:** Share counters among friends | Group objects in equal sets | Missing-group puzzles
Chapter 4	**Number Comparison** **Chapter Note:** Students compare numbers by looking at place value and number size. The chapter builds careful mathematical language: greater than, less than, equal to, ascending and descending order. **Learning Outcomes:** Compare two- and three-digit numbers correctly.; Use >, < and = signs meaningfully.; Order numbers and justify the order. **Suggested Activities:** Place-value cards | Number ladder | Greater-less comparison race
Chapter 5	**Length** **Chapter Note:** Students measure, estimate and compare length using familiar objects and simple measurement tools. This develops accuracy, observation and spatial sense. **Learning Outcomes:** Estimate and compare short/long objects.; Measure in centimetres or non-standard units.; Read simple ruler-based measurements. **Suggested Activities:** Measure pencil/book/table | Longer-shorter sorting | Ruler reading cards

Chapter 6

Weight and Capacity

Chapter Note: Students compare weights and capacities using practical language such as heavier, lighter, more, less, full, empty and half-full. This prepares them for measurement reasoning.

Learning Outcomes: Identify heavier/lighter objects through comparison.; Compare containers by capacity.; Choose sensible units or tools for simple measurement.

Suggested Activities: Balance-scale discussion | Container comparison | Heavy-light object sort

Chapter 7

Time and Money

Chapter Note: Students connect mathematics with daily routines and simple transactions. The chapter covers clocks, calendar thinking, coins/notes, total cost and change.

Learning Outcomes: Read time on simple analog/digital clocks.; Understand days, weeks and simple durations.; Count money and solve basic buying/change problems.

Suggested Activities: Class timetable reading | Toy-shop money game | Clock-hand practice

Chapter 8

Lines

Chapter Note: Students identify line types and use them to describe drawings and shapes. Line awareness supports geometry, handwriting, diagrams and visual reasoning.

Learning Outcomes: Recognize straight, curved, horizontal, vertical and slanting lines.; Find line types in everyday objects.; Use line vocabulary while describing patterns.

Suggested Activities: Line hunt in classroom | Draw-and-name lines | Shape outline tracing

Chapter 9

Shapes and Solids

Chapter Note: Students learn to identify and describe 2D shapes and 3D solids through sides, corners, faces and edges. Visual recognition is developed through objects and drawings.

Learning Outcomes: Name common 2D shapes and 3D solids.; Describe basic properties: sides, corners, faces and edges.; Match shapes and solids to real-life objects.

Suggested Activities: Shape sorting | Build a model with blocks | Find solids around school

Chapter 10

Pictographs

Chapter Note: Students read picture-based data and answer questions by counting symbols. This chapter introduces data representation in a simple and visual way.

Learning Outcomes: Read simple pictographs accurately.; Compare quantities shown by pictures.; Answer total, more/less and difference questions.

Suggested Activities: Class favourite-fruit chart | Weather pictograph | Count-and-compare symbols

Chapter 11

Logical Reasoning

Chapter Note: Students solve non-routine problems by observing, finding patterns and explaining choices. This chapter strengthens focus, sequencing and flexible thinking.

Learning Outcomes: Complete number/shape/color patterns.; Find odd one out using a clear rule.; Solve simple analogy and matching problems.

	Suggested Activities: Pattern bead strings | Odd-one-out cards | Step-by-step puzzle discussion

Assessment Blueprint

The SCO International Maths Olympiad Class 2 assessment should balance numerical fluency, practical measurement, visual mathematics, data reading and reasoning. Questions should encourage careful reading, concept selection and step-wise thinking rather than memorization alone.

Skill Area	Coverage	Suggested Weight
Number Operations	Addition, subtraction, multiplication and division	30-35%
Number Sense & Comparison	Place value, odd/even, multiples, comparison and ordering	15-20%
Measurement	Length, weight, capacity, time and money	20-25%
Geometry & Visual Reasoning	Lines, shapes, solids and spatial thinking	15-20%
Data & Logic	Pictographs, patterns, matching and reasoning	10-15%

Preparation Roadmap

Timeline	Focus	Learning Plan
Week 1	Number Fluency	Revise addition, subtraction, comparison, even/odd numbers and basic facts using short daily practice.
Week 2	Multiplication and Division	Use equal groups, arrays, sharing and grouping activities before solving word problems.
Week 3	Measurement and Geometry	Practise time, money, length, weight, capacity, lines, shapes and solids with real objects.
Week 4	Data and Reasoning	Read pictographs, solve logic puzzles, revise mistakes and complete one mixed practice paper.

Classroom and Home Practice Ideas

- Use a small shop activity with price tags to practise addition, subtraction and change.
- Create a weekly class pictograph for favourite fruit, transport, storybook or game choices.
- Measure everyday objects such as pencils, notebooks and desks, then compare results.
- Build shapes and solids using paper strips, clay, boxes or blocks.
- Complete one 10-minute mental maths session and one reasoning puzzle twice a week.

Student Skill Checklist

Student Skill	Check
I can add and subtract numbers carefully.	☐
I can use equal groups for multiplication and sharing for division.	☐
I can compare numbers and explain which one is greater.	☐
I can read simple time and solve money questions.	☐
I can name common shapes, solids and line types.	☐
I can read a pictograph and answer more/less/total questions.	☐
I can solve a simple logic puzzle by finding the rule.	☐

Glossary for Quick Revision

Term	Meaning
Sum	The answer when numbers are added.
Difference	The answer when one number is subtracted from another.
Product	The answer when numbers are multiplied.
Quotient	The answer when one number is divided by another.
Perimeter	The distance around a shape.
Capacity	How much a container can hold.
Pictograph	A chart that uses pictures or symbols to show data.
Pattern	A repeated or changing arrangement that follows a rule.

Final Learning Message for Students

Think, Try, Check and Explain

Strong mathematics grows from careful thinking. Students should try each question step by step, check the answer, and explain the reason in simple words. This habit builds confidence for school mathematics, Olympiad questions and everyday problem solving.