

Math in Focus
Singapore Math
Scope & Sequence
KG2 to 2

Strand	Kindergarten	Grade 1	Grade 2
Numbers & Operations			
Sets and Numbers	Use concrete models to create a set with a given number of objects (up to 20).	Use concrete and pictorial models to create a set with a given number of objects (up to 100).	Use concrete and pictorial models to create a set with a given number of objects (up to 1,000).
		Group objects and numbers up to 100 in tens and ones.	Group objects and numbers up to 1,000 into hundreds, tens, and ones.
	Use cardinal and ordinal numbers.	Use cardinal numbers up to 100 and ordinal numbers up to 10 th .	Group objects into equal sized groups.
Number Representations	Use numbers to represent quantities up to 20.	Use number bonds to represent number combinations.	Use place value models to create equivalent representations of numbers
		Represent numbers to 100 on	Represent numbers to 1,000

		a number line.	on a number line.
Count	Count up to 20 objects in a set	Count to 100	Count to 1,000
	Count on and back to 20.	Count by 1s, 2s, 5s, and 10s forward and backward to 100.	Count by multiples of ones, tens, and hundreds.
	Count in 2s and 5s up to 20.		
Compare and Order	Compare and order sets and numbers up to 20.	Compare and order whole numbers to 100.	Compare and order whole numbers to 1,000.
	Compare and order using the terms <i>fewer</i> , <i>more</i> , and <i>less</i> . Compare and order using the terms <i>same</i> , <i>more</i> , <i>fewer</i> , <i>greater than</i> , <i>less than</i> , <i>equal to</i> , <i>greatest</i> , and <i>least</i> .		Use $<$, $>$, and $=$ to compare whole numbers.
Place Value		Use place value models and place value charts to represent numbers to 100	Use base-ten models and place value charts to represent numbers to 1,000.
		Express numbers to 100 in	Express numbers to 1,000 in

		standard and word forms.	terms of place value.
			Compose and decompose multi-digit numbers (including expanded form).
Fraction Concepts			Connect geometric concepts with unit fractions—halves, thirds, and fourths.
			Understand the relationship between a fraction and a whole.
			Compare and order halves, thirds, and fourths using bar models.
Money	Identify and relate coin values (penny, nickel, dime, quarter).	Identify and relate coin values (penny, nickel, dime, quarter).	Identify \$1, \$5, \$10, and \$20 bills.
	Count and make coin combinations.	Count and make coin combinations.	Count and make combinations of coins and bills.
			Compare money amounts.
Decimal Concepts			Use the dollar sign and

			decimal point
Ratio, Proportion, and Percent			
Whole Number Computation: Addition and Subtraction	Model joining and separating sets.	Model addition and subtraction situations.	Model addition and subtraction with place value.
	Use +, -, and = to write number sentences for addition and subtraction stories.	Use models, numbers, and symbols for addition and subtraction facts to 20.	Recall addition and subtraction facts.
		Use the order, grouping, and zero properties to develop addition and subtraction fact strategies.	Use different methods to develop fluency in adding and subtracting multi-digit numbers.
		Add and subtract up to 2-digit numbers with and without regrouping	Add and subtract whole numbers to 1,000
Whole Number Computation: Addition and Subtraction Real-World Problems	Represent addition and subtraction stories.	Formulate addition and subtraction stories.	
		Solve addition and subtraction problems using basic facts.	Solve multi-digit addition and subtraction problems by using a

			bar model.
Whole Number Computation: Multiplication and Division Concepts	Count by 2s and 5s up to 20.	Count by 2s, 5s, and 10s.	Multiply and divide with 2, 3, 4, 5, and 10.
		Adding the same number to multiply.	Represent multiplication as repeated addition.
		Represent sharing equally and making equal groups.	Represent division as repeated subtraction.
			Use the \times , \div , and $=$ symbols to represent multiplication and division situations.
Whole Number Computation: Multiplication and Division Algorithms	-	-	-
Whole Number Computation: Multiplication and Division Real-World			Use bar models to represent multiplication and division situations.

Problems			Solve multiplication and division fact problems.
Fraction Computation			Add and subtract like fractions (halves, thirds, fourths).
Decimal Computation		Add and subtract money	Solve addition and subtraction money problems
Estimation and Mental Math		Use mental math strategies to add and subtract.	Use mental math strategies to add and subtract.
		Add and subtract money.	Use mental math strategies to add and subtract.
		Estimate quantity by using referents.	Round to the nearest ten to estimate sums and differences.
Strand	KG 2	Grade 1	Grade 2
Algebra			
Patterns	Describe and extend repeating shape patterns.	Identify, describe, and extend two- and three-dimensional shape patterns.	Describe, extend, and create two-dimensional shape patterns.
	Count by 2s and 5s.Skip	Skip count by 2s, 5s, and	Skip count by 2s, 3s, 4s, 5s,

	count by 2s, 5s, and 10s.	10s.	and 10s.
Pattern	Describe a rule for sorting objects.	Identify a rule for sorting objects.	Identify rules for number patterns.
	Find missing terms in repeating patterns.	Identify and extend growing and repeating patterns.	
Properties		Find missing terms in growing and repeating patterns.	Find missing terms in table patterns.
		Identify 0 as the identity element for addition and subtraction.	Understand that addition and subtraction are inverse operations.
		Use the Associative and Commutative Properties of Addition.	Apply properties of addition.
			Use the Distributive Property as a multiplication strategy.
Number Theory	Identify odd and even numbers.		
Functional		Understand the relationships	Recognize how bar models

Relationships		between the numbers in fact families.	show relationships between numbers and unknowns in number sentences.
Expressions/Models		Use a variety of concrete, pictorial, and symbolic models for addition and subtraction.	Use a variety of concrete, pictorial, and symbolic models for addition, subtraction, multiplication, and division.
Number Sentences and Equations	Model addition and subtraction stories with addition and subtraction number sentences.	Model addition and subtraction situations by writing addition and subtraction number sentences.	Model multiplication and division situations by writing multiplication and division number sentences.
			Use bar models and number sentences to represent real-world problems.
			Determine the value of missing quantities in number sentences.
Equality and Inequality	Understand the meaning of the = sign in number sentences.	Understand the difference between equality and inequality.	Use and create models that demonstrate equality or inequality.
			Use $<$, $>$, and $=$ to write

			number sentences.
Strand	KG 2	Grade 1	Grade 2
Geometry			
Size and position	Understand big, middle-sized, and small.	Describe position with left and right.	
	Describe and compare objects by position.	Use positional words to describe location.	
Lines and angles			Identify parts of lines and curves.
Two-Dimensional Shapes	Identify similarities and differences.		
	Name flat shapes that make up real-world objects.	Identify real-world two-dimensional shapes.	
	Identify, describe, sort, and classify two-dimensional shapes.	Identify and describe attributes and properties of two-dimensional shapes.	Identify, describe, sort, and classify two-dimensional shapes.
		Sort and classify two-	Identify parts of lines and

		dimensional shapes.	curves.
	Make flat shape pictures.	Compose and decompose two- dimensional shapes.	Compose and decompose two- dimensional shapes.
	Compare areas using non- standard units.		Develop foundations for understanding area.
Three-dimensional Shapes	Name and sort solid shapes.	Identify real-world three- dimensional shapes.	
	Understand that three- dimensional shapes are made up of two-dimensional shapes.	Identify two-dimensional shapes in three-dimensional shapes.	Identify, describe, sort, and classify three-dimensional shapes.
		Sort and classify three- dimensional shapes.	Identify surfaces that slide, stack, and roll.
		Recognize shapes from different perspectives.	
		Compose and decompose three-dimensional shapes.	
Congruency		Develop initial understanding of congruence	

		and symmetry.	
Transformation			
Coordinate Geometry			
Strand	KG2	Grade 1	Grade 2
Measurement			
Length and Distance	Compare lengths and heights using non-standard units.	Compare two lengths by comparing each with a third length (transitivity).	Demonstrate linear measure as an iteration of units.
	Compare and order lengths (long, short, longest, shortest).	Use a start line to measure length.	Use rulers to measure length.
	Develop a background for measurement using non-standard units.	Measure lengths, using non-standard units.	Measure lengths in meters, centimeters, feet, and inches.
		Explain the need for equal-length units to measure.	
		Explain the need for equal-length units to measure.	
		Count length units in groups	Compare and measure

		of 10s and 1s.	lengths using customary and metric units.
		Compare measurements made using different units.	Demonstrate partitioning and transitivity in relation to length.
		Understand the inverse relationship between the size of a unit and the number of units.	Solve problems involving estimating, measuring, and computing length.
Weigh/Mass	Order objects by weight.	Compare and measure weights using non-standard units.	Compare and measure masses.
	Compare weights using non-standard units.	Compare two masses by comparing each with a third mass (transitivity).	
		Solve weight problems.	Solve mass problems.
Capacity/Volume	Compare capacities using non- standard units.		Measure volume (capacity) in liters.
			Solve volume problems.

Time	Name and order the days of the week and the months of the year.	Read a calendar to identify the days of the week, months, and seasons of the year.	
		Recognize the correct way to write the date.	Use A.M. and P.M. to write time. Tell time to five minutes.
		Tell time to the hour and half hour.	Tell time to five minutes.
	Compare duration of events		Find elapsed time.
Temperature			
Angles			
Perimeter			
Area Surface Area and Volume	Compare areas using non-standard units.	Compose and decompose two-dimensional shapes (foundation for understanding area).	Develop foundations for understanding area.

Strand	KG 2	Grade 1	Grade 2
Data Analysis			
Classifying and Sorting	Understanding similarities and differences in objects and shapes.	Sort and classify geometric shapes.	Sort and classify two- and three-dimensional shapes by properties.
	Sorting and classifying objects using one or two attributes.	Sorting and classifying data in order to make graphs	Collect and organize data in picture graph.
Collect and Organize Data	Organize data for a picture graph.	Collect and organize data in different ways.	Collect and organize data in different ways.
Represent Data	Represent data in pictographs.	Represent measurements and data in picture graphs, tally charts, and bar graphs.	Represent data in picture graphs.
Interpret Data	Interpret data in tally charts and pictographs.	Interpret data in picture graphs, tally charts, and bar graphs.	Interpret picture graphs with scales.
		Read bar graphs with scales. Solve problems involving data.	

		Solve problems involving data,	Solve real-world problems using picture graphs.
Probability			
Outcomes			
Expressing Probability			
Strand	KG2	Grade 1	Grade 2
Problem Solving			
Build Skill Through Problem Solving	Build skills in addition and subtraction through problem solving.	Build skills in addition, subtraction, and measurement through problem solving.	Build skills in addition, subtraction, multiplication, division, and measurement through problem solving.
Solve Real-World Problems	Solve real-world problems involving addition and subtraction.	Solve real-world problems involving addition and subtraction.	Solve real-world problems involving addition, subtraction, multiplication, division, and measurement.
Use Appropriate Strategies and Thinking Skills to Solve Problems		Apply problem solving strategies in Put on Your Thinking Cap! and Problem Solving activities.	Apply problem solving strategies in Put on Your Thinking Cap! and Problem Solving activities.
Apply and Explain Problem Solving	Solve real-world problems	Apply and explain problem solving processes in Put on	Apply and explain problem solving processes in Put on

		Your Thinking Cap! and other activities.	Your Thinking Cap! and other activities.
Explore Concepts	Use models to explain reasoning	Explore concepts more deeply and justify reasoning in Let's Explore and Hands-On activities.	Explore concepts more deeply and justify reasoning in Let's Explore and Hands-On activities.
		Apply Thinking Skills, Put on Your Thinking Cap!, Challenging Practice, and Problem Solving activities.	Apply Thinking Skills, Put on Your Thinking Cap!, Challenging Practice, and Problem Solving activities.
Investigate Mathematical Ideas	Investigate ideas with two-dimensional shapes.	Further investigate mathematical ideas by completing critical thinking skills activities.	Further investigate mathematical ideas by completing critical thinking skills activities.
Identify, Demonstrate, and Explain Mathematical Proof	Demonstrate that only a few big things fit into small spaces and many small things fit into big spaces.	Explore transitivity by comparing lengths and weights of three different objects.	Demonstrate the inverse relationship between the size of a unit and the number of units.
	Describe, sort, and classify two- and three-dimensional shapes.	Identify and describe attributes and properties of two- and three-dimensional shapes.	Identify, describe, sort, and classify two- and three-dimensional shapes.
Use a Variety of Reasoning Skills	Sort and classify using attributes.	Recognize shapes from different perspectives.	Identify surfaces that slide, stack, and roll.

	Identify similarities and differences.	Use the Commutative and Associative properties, and 10s and 1s to solve two-digit addition and subtraction problems.	Explore the inverse relationship between addition and subtraction.
Strand	KG 1	Grade 1	Grade 2
Communication			
Consolidate Mathematical Thinking	Consolidate thinking in independent activities.	Present mathematical thinking through Math Journal activities.	Present mathematical thinking through Math Journal activities.
Communicate with Peers, Teachers, and Others	Discuss mathematical ideas in paired and small-group activities.	Discuss mathematical ideas in Let's Explore activities.	Discuss mathematical ideas in Let's Explore activities.
Share Mathematical Thinking		Work together in pairs or groups in Let's Explore, Games, and other activities.	Work together in pairs or groups in Let's Explore, Games, and other activities.
	Share mathematical ideas in paired and small-group activities.	Share mathematical ideas with others during Let's Explore and Hands-On activities.	Share mathematical ideas with others during Let's Explore and Hands-On activities.
Express Mathematical Ideas	Express ideas in paired and small group activities.	Express ideas in Math Journal activities, using lesson vocabulary.	Express ideas in Math Journal activities, using lesson vocabulary.

		Use chapter and lesson vocabulary correctly.	Use chapter and lesson vocabulary correctly.
Strand	KG1	Grade 1	Grade 2
Connection			
Recognize Connections in Mathematical Ideas	Understand the connection between quantities and written numerals.	Understand the relationship between counting and addition and subtraction.	Examine and apply the inverse relationship between addition and subtraction.
		Understand the relationships among the numbers in fact families.	Connect geometric concepts with unit fractions.
		Connect addition and multiplication (repeated addition).	Connect subtraction and division (repeated subtraction).
		Recognize and apply different strategies for adding and subtracting one- and two-digit numbers.	Recognize and apply different strategies for multiplication and division facts.
Understand How Concepts Build on One Another	Explore relationships among counting, ordering, and ordinal numbers.	Learn how place value concepts apply to regrouping in addition and subtraction.	Understand how patterns can be described using numbers, operations, and data displays.
			Recognize the relationship between bar models, number

			sentences, and number patterns.
Solve Real-World Problems in Contexts Outside Mathematics	Solve real-world problems involving more and less.	Solve real-world problems involving addition, subtraction, and measurement.	Solve real-world problems involving addition, subtraction, multiplication, division, measurement, and data analysis.
Strand	KG1	Grade 1	Grade 2
Representations			
Use Representations to Model, Organize, and Record	Use concrete models to create a set with a given number of objects (up to 20).	Use concrete and pictorial models to create a set with a given number of objects (up to 100).	Use concrete and pictorial models to create a set with a given number of objects (up to 1,000).
	Use numbers and numerals to represent quantities up to 20.	Represent numbers to 100 on a number line.	Represent numbers to 1,000 on a number line.
	Use picture cards to communicate understanding of comparisons (bigger and smaller).	Use number bonds to represent numbers.	
	Understand the meaning of the = sign in number sentences.	Understand equality and inequality.	Use symbolic notation (< and >) to compare numbers.
	Model addition and subtraction	Use the +, -, and = symbols to	Use bar models to represent

	stories with addition and subtraction number sentences.	represent real-world addition and subtraction situations.	addition and subtraction situations.
	Represent addition and subtraction stories.	Represent numerical data using picture graphs, tally charts, and bar graphs.	Represent numerical data using picture graphs with scales, tally charts, and bar graphs.
		Represent sharing equally and making equal groups.	Use the \times , \div , and $=$ symbols to represent multiplication and division situations.
			Represent multiplication with skip counting, dot paper arrays, and bar models.
			Represent division as repeated subtraction sentences.
	Describe and extend shape patterns.	Identify, describe, and extend two- and three-dimensional shape patterns.	Describe, extend, and create two-dimensional shape patterns.
	Describe a rule for sorting objects.	Identify a rule for sorting objects.	
		Identify and extend growing and repeating patterns.	Identify rules for number patterns.
Select and Apply Representations to Model Problems	Represent quantities with objects, number cubes, and	Use number bonds to represent number combinations.	Use place value models to create equivalent

	numerals.		representations of numbers.
Interpret Phenomena through Representations		Use a variety of concrete, pictorial, and symbolic models for addition and subtraction.	Use a variety of concrete, pictorial, and symbolic models for addition, subtraction, multiplication, and division.
			Represent multiplication with skip counting and arrays.
	Show understanding of big, middle-sized, small, and same size.	Measure and compare lengths and weights using non-standard units.	Use metric and customary units to measure length, volume (capacity), weight, and mass.
	Describe and compare objects by position.	Use positional words to describe location.	
	Name flat shapes that make up real-world objects.	Identify real-world two- and three-dimensional shapes.	
	Represent measurements and data in picture graphs and bar graphs.	Represent data in picture graphs.	Represent data in bar graphs and picture graphs.
	Order a number of objects according to length, height, or weight.	Solve problems about sharing equally and making equal groups.	Solve real-world problems about social phenomena.
	Use one-to-one correspondence.	Use a variety of models for adding and subtracting.	Use bar models to represent addition, subtraction, multiplication, and division

			situations.
		Use technology (virtual manipulative and computers) to model and draw.	Use technology (virtual manipulative and computers) to model and draw.