## Dimensions Math ${ }^{\circ}$ PK-5 Curriculum



## Our flagship Singapore Mathe program combines rigor and accessibility.

 educators and students love about the Singapore math method.Written by a team of educators and experts with more than 100 years of combined classroom experience, it is a rigorous and engaging curriculum that provides a deep elementary math foundation. The price of the series reflects our belief that an excellent math education should be accessible to all.


What a steal!

## Why Singapore Math?



The Singapore math approach is a highly effective teaching approach based on research of math mastery in Singapore, which consistently ranks at the top in international math testing.

In typical U.S. math programs, students get a worked example, then solve problems that very closely follow that example, repeating all the same steps with different numbers. In Singapore math, students must think through concepts and apply them in new ways from the very start, which fosters greater engagement and broader thinking.

| Grade 4 |  |  |  |
| :---: | :---: | :---: | :---: |
| 50 | 80 | 93 | 99 |
| $\underbrace{}_{\substack{\text { Adenored } \\ \text { Benommatk }}}$ | ${ }_{\text {Bonchmark }}^{\text {High }}$ |  | ${ }_{\text {Benownmak }}^{\text {Low }}$ |
| 14 | 47 | 79 | 95 |


| 砍 | Share of Low Performers | $\begin{gathered} \text { Share of } \\ \text { Average } \\ \text { Performers } \end{gathered}$ | Share of $\stackrel{\text { Top }}{ }$ Performe |
| :---: | :---: | :---: | :---: |
|  | MAX | MAX | MAX |
|  |  |  | $i$ |
|  | MIN | MIN | MIN |

## The Approach

The intentional progression of concepts in the Singapore math approach instills a deep understanding of mathematical thinking. Key features include:

## CPA (Concrete Pictorial Abstract) Approach:

Introduces concepts in a tangible way and progresses to increasing levels of abstraction.

Number Bonds: Shows the part-whole relationship between numbers.

Bar Modeling: Helps students visualize a range of math concepts, such as fractions, ratios, and percentages. Allows students to determine the knowns and unknowns in a given situation.

Mental Math: Helps students develop number sense and flexibility in thinking about numbers.


## Textbooks



Textbook lessons build on prior knowledge and develop concepts in an approachable way. Textbooks A and $B$ for each grade correspond to the two halves of the school year.
(1) Think: Stimulates interest in new concepts through a hands-on activity or problem.
(2) Learn: Presents definitions and fully explains new concepts.
(3) Do: Solidifies and deepens student understanding of concepts.
(4) Exercise: Provides additional problems in the workbook for students to master concepts.
(5) Practice: Provides teachers with opportunities for consolidation, remediation, and assessment.

Workbooks offer independent practice through careful progression of exercise variation. Workbooks A and $B$ for each grade correspond to the two halves of the school year.

Tests align with the content of the textbooks and help teachers systematically evaluate student progress. Grades 1-5 have differentiated assessments: Test A focuses on key concepts and fundamental problemsolving skills, while Test B focuses on the application of analytical skills and heuristics.


# Teacher's \& Home Instructor's Resources Guides 

Teacher's Guides are a comprehensive resource that help teachers understand the purpose of each lesson within the framework of the curriculum. They offer structure for thoughtfully guiding student inquiry, and include detailed teaching notes and activities to achieve lesson objectives.

Home Instructor's Guides are an affordable and comprehensive resource for teaching in a home or one-on-one setting. They include extensive background notes, lesson suggestions, tips, and activities to provide a rich educational experience for both the student and instructor.

The extensive Dimensions Math ${ }^{\circledR}$ free online resources page includes singalong videos, Blackline Masters, Printouts, Letters Home, and more! We also carry many manipulatives to enrich learning activities.

Our Dimensions Math At Home ${ }^{\text {TM }}$ subscriptions provide in-depth video lesson instruction for an entire Dimensions Math school year. Available for grades 1-6, this is a truly comprehensive subscription, covering all material in Textbooks and Workbooks.

Lesson 7 Subtract from Tens (pp. 126-127)
In this lesson, students will subtract a one digit number from tens only, which requires regrouping (the tens digit of the answer is one less than the tens digit of the two-digit number being subtracted). Students did this in Chapter 13, but with numbers within 40.

Think (p. 126)
Have your student write an equation. Ask them how they found the answer. They can se base-ten blocks axplain their can use base ter blaw ho their method, or words, or draw a number bond.

Learn (p. 126)
This shows that in order to subtract 6 , we need to subtract it from one of the tens. Sofia is finding the answer by thinking of 70 as split into 60 and 10 . It is not necessary that your student think in exactly the same steps. They could realize right away that the answe has one less ten, write the tens down, and

| Answers |
| :--- |
| 64 |
| 64 |
| (a) 52 |
| (b) 81  <br> (2)  <br> (a) 66 (b) 89 <br> (c) 35 (d) 47 <br> (e) 58 (f) 73 <br> 3 $40-8=32$  <br> 32 garlic bulbs  |

then think of the number bond, i.e. what makes 10 with 6 , and then write the ones

Do (p. 127)
These problems should be easy if your student mastered the earlier topics of place value concepts and subtracting from ten.


## Scope \& Sequence



| PKA |
| :--- |
| (1) Match, Sort, and Classify |
| (2) Compare Objects |
| (3) Patterns |
| (4) Numbers to 5 - Part 1 |
| (5) Numbers to 5 - Part 2 |
| (6) Numbers to 10 - Part 1 |
| (7) Numbers to 10 - Part 2 |
| PKB |
| (8) Ordinal Number |
| (9) Shapes and Solids |
| (10) Compare Sets |
| (1) Compose and Decompose |
| (12 Explore Addition and Subtraction |
| (13 Cumulative Review |
| KA |
| (6) Match, Sort, and Classify |
| (2) Numbers to 5 |
| (3) Numbers to 10 |
| (4) Shapes and Solids |
| (5) Compare Height, Length, Weight, |
| and Capacity |


| KB |  |
| :--- | :--- |
| 7 Numbers to 20 |  |
| 8 | Number Bonds |
| (9) | Addition |
| (10 | Subtraction |
| (1) | Addition and Subtraction |
| (12) | Numbers to 100 |
| (13) | Time |
| (14) | Money |
| 1A |  |
| (1) | Numbers to 10 |
| (2) | Numbers Bonds |
| (3) | Addition |
| (4) | Subtraction |
| (5 | Numbers to 20 |
| (6) | Addition to 20 |
| ( | Subtraction Within 20 |
| 8 | Shapes |
| (9) | Ordinal Numbers |



Throughout the series, five characters offer suggestions to students on how to think about problems and strategies they've learned, while pointing out important information to encourage students to come up with their own solutions.


| 2B |
| :---: |
| 8 Mental Calculation |
| (9) Multiplication and Division of 3 and 4 |
| (10) Money |
| (11) Fractions |
| (12) Time |
| (13) Capacity |
| (14) Graphs |
| (15) Shapes |
| 3A |
| (1) Numbers to 10,000 |
| (2) Addition and Subtraction - Part 1 |
| (3) Addition and Subtraction - Part 2 |
| (4) Multiplication and Division |
| 5 Multiplication |
| (6) Division |
| (7) Graphs and Tables |


| 3B | (13) Addition and Subtraction of Decimals |
| :---: | :---: |
| (9) Multiplying and Dividing with |  |
| 6, 7,8 , and 9 | (14) Multiplication and Division of Decimals |
| $(10)$ Fractions - Part 1 |  |
| (11) Fractions - Part 2 | (15) Angles |
| (12) Geometry | (16) Lines and Shapes |
| (13) Area and Perimeter | (17) Properties of Cuboids |
| (14) Time | 5A |
| (15) Money | (1) Whole Numbers |
| 4A | (2) Writing and Evaluating Expressions |
| (1) Numbers to One Million | (3) Multiplication and Division |
| (2) Addition and Subtraction | (4) Addition and Subtraction of Fractions |
| (3) Multiples and Factors | (5) Multiplication of Fractions |
| (4) Multiplication | (6) Division of Fractions |
| (5) Division | $(7)$ Measurement |
| 6 Fractions | 8 Volume of Solid Figures |
| 7 Adding and Subtracting Fractions | 5B |
| (8) Multiplying a Fraction and a Whole Number | (9) Decimals |
| (9) Line Graphs and Line Plots | (10) The Four Operations of Decimals |
| $4 B$ | (11) Geometry |
| (10) Measurement | (12) Data Analysis and Graphs |
| (11) Area and Perimeter | (13) Ratio |
| (12) Decimals | (14) Rate |
|  | (15) Percentage |



Dimensions Math ${ }^{\circledR}$ PK-5 is an accessible and comprehensive Singapore Math ${ }^{\oplus}$ program. The curriculum stays true to the rigorous Singapore math approach while meeting the unique needs of today's students and educators.


