

Kolbe Academy Home School

GRADE TWO MATHEMATICS

Singapore Math ® Primary Mathematics 2A
Singapore Math ® Primary Mathematics 2B

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COURSE TITLE: Mathematics

COURSE TEXTS:

First Semester (2A)

- Primary Mathematics 2A Textbook, Standards Edition*
- Primary Mathematics 2A Workbook, Standards Edition*
- Primary Mathematics 2A Home Instructor’s Guide, Standards Edition*
- Optional Texts (available from Singapore Math ®)**
- Primary Mathematics 2 Extra Practice, Standards Edition*
- Primary Mathematics 2A Intensive Practice, US Edition*
- Primary Mathematics 2, Challenging Word Problems*

Second Semester (2B)

- Primary Mathematics 2B Textbook, Standards Edition*
- Primary Mathematics 2B Workbook, Standards Edition*
- Primary Mathematics 2B Home Instructor’s Guide, Standards Edition*
- Optional Texts (available from Singapore Math ®)**
- Primary Mathematics 2 Extra Practice, Standards Edition*
- Primary Mathematics 2B Intensive Practice, US Edition*
- Primary Mathematics 2, Challenging Word Problems*

TEXT DESCRIPTIONS:

Descriptions below adapted from Singapore Math ®

Components	
Textbook	The textbook contains the learning tasks for students to do with adult supervision and interaction, along with practice and review problems. This text is a non-consumable book and to be used along with the workbook, at minimum. There is a book for each semester: 2A and 2B. Answers to textbook questions are in the Home Instructor’s Guide.
Workbook	The workbook is consumable and should be used along with the textbook. They contain the exercises the student does independently after each learning task. There is a book for each semester: 2A and 2B. Answers to workbook questions are in the Home Instructor’s Guide
Home Instructor’s Guide	The Home Instructor’s Guides are required. The Home Instructor’s Guide provides parents with the Singapore Math® methodology. The depth achieved by the Home Instructor’s Guides can help the parent understand and handle misconceptions or lack of comprehension early before they become problematic. It prepares parents to initiate discussions on various approaches to understanding a concept or solving a problem and aids the parent in using the textbook most effectively. The guide contains mathematical background and objectives for each unit, objectives for each chapter, activities using manipulatives where appropriate, reinforcement and enrichment activities. It also includes answers and solutions to textbook pages and learning tasks for the chapter, answers to the workbook exercises and solutions to many of the problems. It also includes several mental math pages. There is a book for each semester: 2A and 2B.

Extra Practice	This optional supplement consolidates and reinforces the mathematical concepts taught in the textbook. Students would benefit from this text if they are struggling to master a concept presented in the textbook or to review over long periods away from school such as summer break. The exercises are short and topic-specific to make it easy to assign work in those topics in which the student needs more practice. This, together with the simple language used, allows students to review mathematics with minimal guidance. There is only one book for the entire year. Answers are in the back of the book.
Intensive Practice	This optional supplement is recommended for capable students as a source of interesting review and challenging questions. The problems are arranged in topics corresponding to each unit in the US edition. However, they can easily be used with the Standards edition. However, note that it does not include all topics and the sequence of topics will be different in places than the Standards edition. Kolbe accounts for this within the course plan. There is a book for each semester: 2A and 2B. Answers are in the back of the book.
Challenging Word Problems	This optional supplement provides not only ample practice of graded exercises for students of mixed abilities but also offers better math students with challenging questions. It includes worked examples, additional practice questions, challenging word problems, and miscellaneous questions for review. There is only one book for the entire year. Answers are in the back of the book.

COURSE DESCRIPTION:

In Primary Mathematics Grade 2 curriculum students will use and apply mathematics in practical, real life situations as well as within the discipline of mathematics itself. The curriculum will cover a wide range of situations from routine problems to problems in unfamiliar contexts to open-ended investigations that will make use of relevant mathematical concepts.

In this curriculum the student will experience a concrete introduction to a concept, followed by a pictorial representation, followed by the abstract symbols. In this way students will be able to master each concept.

SKILLS TO BE DEVELOPED:

- Readiness for third grade
- Relate numbers to 1000
- Understand meanings of addition and subtraction
- Measure length in various units
- Measure weight in various units
- Understand multiplication and division
- Perform multiplication and division of 2's and 3's, 4's, 5's, and 10's
- Utilize methods for mental addition and subtraction
- Add and subtract money
- Recognize, write, and use fractions
- Tell time
- Compare and calculate capacities
- Utilize tables and graphs
- Recognize geometrical shapes

SCOPE AND SEQUENCE:❖ **Quarter 1 (Begin 2A)****Unit 1: Numbers to 1000**

- Chapter 1: Looking Back
- Chapter 2: Hundreds, Tens and Ones
- Chapter 3: Comparing Numbers

Unit 2: Addition and Subtraction

- Chapter 1: Meanings of Addition and Subtraction
- Chapter 2: Addition without Renaming
- Chapter 3: Subtraction without Renaming
- Chapter 4: Addition with Renaming
- Chapter 5: Subtraction with Renaming

Unit 3: Length

- Chapter 1: Measuring Length
- Chapter 2: Measuring Length in Meters
- Chapter 3: Measuring Length in Centimeters
- Chapter 4: Measuring Length in Yards and Feet

❖ **Quarter 2**

- Chapter 5: Measuring Length in Inches

Unit 4: Weight

- Chapter 1: Measuring Weight in Kilograms
- Chapter 2: Measuring Weight in Grams
- Chapter 3: Measuring weight in Pounds and Ounces

Unit 5: Multiplication and Division

- Chapter 1: Multiplication
- Chapter 2: Division

Unit 6: Multiplication Tables of 2 and 3

- Chapter 1: Multiplication Table of 2
- Chapter 2: Multiplication Table of 3
- Chapter 3: Dividing by 2
- Chapter 4: Dividing by 3

❖ **Quarter 3 (Begin Book 2B)****Unit 7: Addition and Subtraction**

- Chapter 1: Finding the Missing Number
- Chapter 2: Methods for Mental Addition
- Chapter 3: Methods for Mental Subtraction

Unit 8: Multiplying and Dividing

- Chapter 1: Multiplying and Dividing by 4
- Chapter 2: Multiplying and Dividing by 5
- Chapter 3: Multiplying and Dividing by 10
- Chapter 4: Division with Remainder

Unit 9: Money

- Chapter 1: Dollars and Cents
- Chapter 2: Adding Money

❖ **Quarter 4**

- Chapter 3: Subtracting Money

Unit 10: Fractions

- Chapter 1: Halves and Quarters
- Chapter 2: Writing Fractions
- Chapter 3: Fraction of a Set

Unit 11: Time

- Chapter 1: Telling Time After the Hour
- Chapter 2: Telling Time Before the Hour
- Chapter 3: Time Intervals
- Chapter 4: Other Units of Time

Unit 12: Capacity

- Chapter 1: Comparing Capacity
- Chapter 2: Liters
- Chapter 3: Gallons, Quarts, Pints, and Cups

Unit 13: Tables and Graphs

- Chapter 1: Picture Graphs
- Chapter 2: Bar Graphs

Unit 14: Geometry

- Chapter 1: Flat and Curved Faces
- Chapter 2: Making Shapes

COURSE PLAN METHODOLOGY:

Kolbe Academy has worked diligently to create the best possible course plans with the home schooling family in mind. Remember, however, that our program is intended to be flexible. Per the principle of subsidiarity, these course plans are a **suggested** course of study. As the teacher, you should adapt and modify these course plans to meet the individual learning needs of your child. **Do not feel obligated to follow these course plans exactly.**

There are several books used in this course. A list of abbreviations follow to help aid you in reading the Kolbe Academy course plan.

Legend	
PMA	<i>Primary Mathematics</i> Textbook, 2A
WBA	<i>Primary Mathematics</i> Workbook, 2A
HIGA	<i>Primary Mathematics</i> Home Instructor's Guide, 2A
PMB	<i>Primary Mathematics</i> Textbook, 2B
WBB	<i>Primary Mathematics</i> Textbook, 2B
HIGB	<i>Primary Mathematics</i> Home Instructor's Guide, 2B
EP	<i>Primary Mathematics</i> Extra Practice 2
IPA	<i>Primary Mathematics</i> Intensive Practice, 2A
IPB	<i>Primary Mathematics</i> Intensive Practice, 2B
CWP	<i>Primary Mathematics</i> Challenging Word Problems 2
DAY	<input type="checkbox"/> Assignments and activities that are a recommended part of the course are included in each day's schedule.
OPT	<input type="radio"/> Optional assignments and/or activities that can be used as reinforcement for a skill not yet mastered or enrichment for a child that wants to go that extra step. These are located in each day's optional schedule indicated by "OPT."

Each weekly assignment is summarized in the first rows of the week's daily course plan along with the goals, notes, and suggested materials for that week. The specific daily assignments for the student are outlined in the following lines indicated by the **DAY 1**, **DAY 2**, **DAY 3**, **DAY 4**, and **DAY 5** abbreviations and include a checkbox.. The assignments in the **OPT** box are meant to be **OPTIONAL** and coincide with that particular day's assignments. These optional assignment that are included for reinforcement or enrichment are indicated with the symbol . See the legend above to help you determine whether your child might benefit from the optional assignments. Parent daily guidelines are given to the right of the student assignments. These guidelines are meant to be flexible. Feel free to combine lessons when able, or slow down where desired. A family's schedule can and should vary as needed. Most weeks will have five days of lessons assigned, however, for some weeks there are only four days of assignments. You may either use the extra day as a 'catch-up' day or to review material for extra reinforcement.

This mathematics course contains 36 weeks broken into four 9-week quarters. Three exams are given for each quarter, except for the third quarter, which has four exams, for a total of thirteen exams for the year. Exams generally cover a Unit of material, except for Unit Three which has two exams since it is broken between the first and second quarter, and the last exam which covers two Units.

Finally, begin every class with a prayer. This is a good way to help the child memorize new prayers. Repeat the same ones every day until they are known. Be sure to explain the meanings of the prayers. Repetition in all areas of study is most beneficial.

◆◆◆ FIRST QUARTER ◆◆◆

WEEK 1		
Book	Weekly Breakdown	Goals and Notes for the Week
PMA	Unit 1 Chapter 1 Chapter 2	Unit 1: Numbers to 1000. Chapter 1: Looking Back – a review. Read pages ix-x in the HIGA to gather the manipulatives for the lessons. Use HIGA pp. 1-7 as reference for week 1. Students will review relating two digit numbers to the place-value concept. Students will review comparing numbers with the aid of a hundred chart as well as using the < and > symbols. Students will also review addition and subtraction within 20. Students will begin extend understanding of place-value to hundreds.
Notes		
Student Daily Assignments		<input checked="" type="checkbox"/> Parent Daily Guidelines
DAY 1	PMA pp. 8-9	<input type="checkbox"/>
	WBA pp. 7-9	<input type="checkbox"/>
OPT	EP p. 5 Ex 1 no. 1	<input type="radio"/> Supplement as needed. Matching.
DAY 2	PMA pp. 10-11 Ex. 3-7	<input type="checkbox"/>
	WBA pp. 10-11 Ex. 2	<input type="checkbox"/>
OPT	EP p. 6 Ex 1 no. 2	<input type="radio"/> Supplement as needed. Write the numbers.
DAY 3	PMA pp. 11-12 Ex. 8-11	<input type="checkbox"/>
	WBA pp. 12-14 Ex. 3	<input type="checkbox"/>
OPT	EP pp. 6-7 Ex 1. No. 3, 4	<input type="radio"/> Supplement as needed. Fill in the blanks, write the missing numbers.
DAY 4	HIGA	<input type="checkbox"/> Chapter 1 Lesson 4. Refer to HIGA pp. 6-7. Students will review and practice addition and subtraction to 20.
OPT	EP pp. 7-8 Ex. 1 nos. 5-7	<input type="radio"/> Supplement as needed.
DAY 5	PMA pp. 13-15	<input type="checkbox"/>
	WB pp. 15-16 Ex. 4	<input type="checkbox"/>

◆ COURSE PLAN ◆

OPT	EP pp. 9-10 Ex 2 no. 1-2	<input type="radio"/>	Supplement as needed. EP Match. Fill in the blanks. IPA Count and write the correct number in each box		
	IPA pp. 1-2 No. 1	<input type="radio"/>			
Week 1 Grade Book					
Assignments		Include <input checked="" type="checkbox"/>	(A) Points Earned	(B) Possible Points	A/B x100 =% (C)
PMA pp. 8-12		<input type="checkbox"/>			
WBA pp. 7-14		<input type="checkbox"/>			
PMA pp. 13-15		<input type="checkbox"/>			
WBA pp. 15-16		<input type="checkbox"/>			
Other:		<input type="checkbox"/>			
Other:		<input type="checkbox"/>			
Other:		<input type="checkbox"/>			
Week 1 Average	Add up column C & divide by number of included <input checked="" type="checkbox"/> assignments =				%

WEEK 2		
Book	Weekly Breakdown	Goals and Notes for the Week
PMA	Unit 1 Chapter 2 Chapter 3 Unit 1 Review	Chapter 2 continues with interpreting 3 digit numbers and using place value disks. See HIGA pp. 11-12. Use HIGA pp. 13-15 to teach concepts in Chapter 3, which include comparing numbers within 1000 and Counting on and counting back.
Notes		
Student Daily Assignments		<input checked="" type="checkbox"/> Parent Daily Guidelines
DAY 1	PMA p. 16 Ex. 2-3	<input type="checkbox"/> Chapter 2 Lesson 2. Read HIGA page 11 to prepare to teach interpreting 3-digit numbers.
	WBA pp. 17-21	<input type="checkbox"/>
OPT	EP pp. 10-11 Ex. 2 nos. 3-5	<input type="radio"/> Supplement as needed. EP What number does each chart show? Fill in the blanks. Write the numbers in words.
	IPA p. 2-3 Nos. 2-3	<input type="radio"/> IPA Write these numerals in words, Write in numerals.
DAY 2	PMA pp. 17-19	<input type="checkbox"/> Chapter 2 Lesson 3. Read HIGA page 12 to prepare to teach Use place-value discs.
	WBA pp. 22-23	<input type="checkbox"/>
OPT	EP pp. 11-12 Ex 2 no. 6-7	<input type="radio"/> Supplement as needed. EP Write the missing numbers.
	IPA p. 3 no. 4	<input type="radio"/> IPA Complete the number bonds.
DAY 3	PMA page 20-21	<input type="checkbox"/> Chapter 3: Comparing Numbers Lesson 1. Read HIGA pp. 13-14. Students will compare number with 1000 using < and > with the three digit numbers.
	WBA pp. 24-25	<input type="checkbox"/>
OPT	EP p. 13 Ex 3 nos. 1-4	<input type="radio"/> Supplement as needed. EP All of page 13.
	IPA pp. 4-6 nos. 5-8	<input type="radio"/> IPA Circle the biggest number, arrange numbers in order, use the numbers in the bag
DAY 4	PMA p. 22	<input type="checkbox"/> Chapter 3 Lesson 2. Read HIGA page 15. Students will count on and count back using a place-value chart and some place-value discs.
	WBA pp. 26-27	<input type="checkbox"/>
OPT	EP p. 14 Ex 3 nos. 5-7	<input type="radio"/> Supplement as needed. All of page 14.
	IPA pp. 7 No. 9	<input type="radio"/>
DAY 5	PMA p. 23	<input type="checkbox"/> Review 1. Refer to HIGA p. 16.
	WB pp. 28-30	<input type="checkbox"/>

◆ COURSE PLAN ◆

OPT	IPA pp. 8-11	<input type="radio"/>	Supplement as needed.		
Week 2 Grade Book					
Assignments	Include <input checked="" type="checkbox"/>	(A) Points Earned	(B) Possible Points	A/B x100 =% (C)	
PMA pp. 16-19	<input type="checkbox"/>				
WBA pp. 17-23	<input type="checkbox"/>				
PMA pp. 20-22	<input type="checkbox"/>				
WBA pp. 24-27	<input type="checkbox"/>				
PMA Review 1 p. 23	<input type="checkbox"/>				
WBA Review 1 pp. 28-30	<input type="checkbox"/>				
Other:	<input type="checkbox"/>				
Other:	<input type="checkbox"/>				
Other:	<input type="checkbox"/>				
Week 2 Average	Add up column C & divide by number of included <input checked="" type="checkbox"/> assignments =			%	