

## - Kindergarten

## MATH KINDERGARTEN GETTING READY FOR MATH Student Book 1

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## Color the big circles red and color the small circles blue.

color this!




## BIG



Big


Lit+le

## Circle the big one.




Write the numbers to 9 .


Make a mark for each one.


Write the number before.


Write the number after.


## Write the number for the set.



## Write the number in the $\square$.



## Write the number in the $\square$.

53
4
2
5
4

6
1
1
4

1

$$
7
$$

$$
1
$$


6

2
4


| six seven eight | nine |  |  |
| :---: | :---: | :---: | :---: |
| 6 | 7 | 8 | 9 |



11$+\square$
four + two $=4+2$
Add four + two
$=$ six


Add five + one
five + one $=5+1$
$=\mathbf{s i x}$
$\square$ three + four $=3+4$
Add three + four
$\square$ five + two $=5+2$

Add five + two

six + two
$=6+2$
= eight
Add six + two

five + four $=5+4$
$=$ nine

Add five + four

seven + two $=7+2$
$=$ nine
Add seven + two
three, five, seven, one, eight, six, nine, two, four Write the missing number words on the line.


Write the number in the $\square$ and the number word on the $\cdots \cdots \cdots$.


## Write the number word.

five + four
one + one =
four + four
two + zero =
three + four $=$
Tell the order numbers.

Write the number word for the number before and after.



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## - Kindergarten

## MATH KINDERGARTEN GETTING READY FOR MATH Student Book 2

## Contents

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## SUBTRACT TO 5

## Subtract $1 \square$ from the set.

Cut $8: 1$


## Write the number in the $\square$.



Write the number on the $\qquad$ .


Write the number in the $\square$.


## SUBTRACT FROM 10



## Write the number in the $\square$.



## NUMBER ORDER (GREATER, LESS)



## Less

(Smaller)

Greater
(Bigger)

## 7 <br> 8 is greater than 7 .




5 is less than 6.

14
15 is greater than 14.


25 is less than 26.
26

## Circle the number.

$$
42
$$

$$
43
$$

$$
13
$$

$$
14
$$

$$
2
$$3

30 ..... 31
22 ..... 23

## Listen and write.

1. $2,4,6$, $\qquad$
 ——_
2. 


4. 10, 20, 30, $\qquad$

6. 00 , 0 ? 0 ,
7. $5,10,15$, $\qquad$
8. $a b, a b c, a b c d$, $\qquad$


## Write how many tens, how many ones.

> tens ones

12
35
42
76 85

## Write how many dimes, how many pennies.

## dimes

15 $\ddagger$
23 $\ddagger$
38 ¢
57థ
85థ
pennies
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Play store.

## Buy from the store with play dimes and pennies.

$)^{-} \underset{\text { ball }}{-42 d}$



Draw dimes and pennies for each object.

| ball | car |
| :--- | :--- |
| doll | candy |
| book | bat |

## Write the numbers in number order.



Draw 4 funny faces with hats.

How many faces? $\qquad$
How many noses? $\qquad$
How many ears? $\qquad$

How many eyes?
How many smiles? $\qquad$
How many hats?

## Write the number in the $\square$.

$$
\begin{array}{ll}
3+1=\square & 6-0=\square \\
7+3=\square & 9-7=\square \\
9-8=\square \\
2-1=\square \\
8-2=\square & 4+1=\square \\
9-1=\square & 9-8=\square \\
5+2=\square & 5-0=\square \\
6-1=\square \\
5+4=\square & 2+1=\square \\
9-2=\square & 5+3=\square \\
7-6=\square & 2-0=\square \\
\hline
\end{array}
$$

Try it again!


## Draw a picture. Write the number fact.

Mary had five cookies. She ate two. How many cookies does Mary have now?

Jerry was building a tower with his blocks. He made a tower with four blocks. His dad added one block to the tower. How many blocks is the tower now?

Jeannie counted six birds on the tree in her backyard. There was a big noise outside and four of the birds flew away. How many were left?

Lisa has four steps to climb to enter her house and Jason has six steps. Which set of stairs is greater?



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## INSTRUCTIONS FOR KINDERGARTEN MATH

The teacher instruction pages contain the objectives (concepts) to be taught in each lesson along with directions for teaching the corresponding student workbook pages. The activities included in the teaching page section that precede or follow the workbook assignments are used to reinforce or expand the concepts taught and are an integral part of the learning experience.

Students learn letter formation and penmanship in their reading and spelling programs. Because this is not a primary focus of math, the math curriculum begins immediately with the five-eighths separation between the bold writing lines along with the dotted guide line for lowercase letters.

Math is a subject that requires skill mastery, but skill mastery needs to be applied toward active student involvement. A list of materials/ manipulatives is provided on each instruction page. A complete list for the entire Kindergarten Math curriculum is included in this section.

The Introduction of Skills that appears in this section is a quick reference guide for the teacher who may be looking for a rule or explanation that applies to a particular skill or to find where or when certain skills are introduced in the curriculum. The skills are grouped by Lessons (1-40, 41-80, 81-120, 121-160) for a convenient teacher reference during student evaluation.

## MATH K INTRODUCTION OF SKILLS: LESSONS 1-40

## CONCEPT

Before and after
Colors
red, yellow, green, blue 1
brown 7
purple 23
Comparisons
big, little, alike, different
2-5, 7-8, 11, 14-15, 18, 20-21, 25, 26, 34, 38

Counting
1-5
9
6-9
25
Following directions
right, left, high, low, top,
bottom, middle, above, below, inside, outside
Matching
$6-9,11,15,18$, 20-21, 26, 30, 33

## CONCEPT <br> LESSON

Ordinal (order) numbers first - fifth
sixth - ninth 27
Problem solving/critical thinking concentration 30,32
estimate enough objects
to make sets 1-5 22
estimate enough objects
to make sets 6-9 36
can you select objects
up to 9
35
Shapes
circle, triangle, square, rectangle

3, 6, 7, 10-11, 15, 20-21, 23, 36-37, 39-40

Write the number symbol
1-5
12
6-9
28

Number order
1-9 38-40

## MATH K INTRODUCTION OF SKILLS: LESSONS 121-160



## LESSON 2

## MATERIALS NEEDED

- pencils
- pictures illustrating big and little (animals, children, toys, plants, houses, and so on) or objects illustrating big and little (two sizes of marshmallows, blocks, toy trucks, and so on)
- red, yellow, green, and blue crayons


## Objectives:

1. To distinguish between big and little.
2. To use colors.
3. To identify the big object.

## Teaching Pages 3 and 4:

1. Use the pictures or the collection of objects to begin a class discussion about big and little. Give each child an opportunity to touch and handle the pictures and objects. Ask:
 "Which of these items are alike?" "Which are different?" "How are they different?" "Which item is the big one?" Have the children look for big and little items in the classroom.
2. When you are sure that each child understands the concept of big and little, have the children open their workbooks to page 3. Read the title of the page to them. Discuss the meaning of the word circle and make sure each student understands how to draw one. Have the children look at the two cats in the middle of the page. Decide which cat is the big one and have the students draw a red circle around it. Look at the cats and the circles at the bottom of the page. Tell the students to circle the big cat and the big circle using a red crayon.
3. Turn to page 4. Ask the children to identify the color of the turtles (green), the pencil eraser (red), shoes (blue), and the braided hair (yellow). Ask them if they can find these colors anywhere else on the page. Have them look at each pair of items. Ask questions: "How are these two items alike?" (Both are turtles.) "How are these two items different?" (Different sizes) "Which item is the big one?" (Point) After doing this with each pair of items, read aloud the instructions at the top of the page. Have the children complete the page independently. Then, tell the children they may color the cats and circles on page 3 using any of the colors red, yellow, green, or blue.


## LESSON 40

## MATERIALS NEEDED

- pencils
- red, yellow, green, blue, brown, and purple crayons


## Objectives:

1. To write numbers to 9 in order.
2. To count using ordinal numbers and tally marks.
3. To write the numbers before and after.
4. To illustrate using shapes and colors.

## Teaching Pages 91, 92, and 93:

1. Turn to pages 91,92 , and 93 . Pages 91, 92, and 93 are very similar to pages 88,89 , and 90. They will allow the teacher and students another opportunity to review the skills covered on those pages. Read the set of directions and have the children complete the exercise. In the first exercise, the students are asked to write the numbers to 9 . When they have completed this exercise, ask them to put their fingers on the first box and say aloud, "This is the $\qquad$ box" (first), "This is the $\qquad$ box" (second), "This is the $\qquad$ box" (third), and continue through the ninth box. Complete the remainder of pages 91,92 , and 93.


Write the numbers to 9.


Make a mark for each one.


Write the number before.

$$
\underline{67} \quad 45 \quad \underline{5} 6 \quad 12 \quad 78
$$

Write the number after.

$$
56 \quad 12 \quad 89 \quad 23 \quad 3 \underline{4}
$$



## LESSON 51

## MATERIALS NEEDED

- pencils
- objects for counting


## Objectives:

1. To add four objects to a set.
2. To add number facts to 9 vertically.

## Teaching Pages 116 and 117:

1. Review the addition facts through 9. Give the students any set of objects up to seven. Ask them to add one, two, or three to the different sets. (Do not exceed a total of 9.) Encourage them to picture the objects in their minds before giving the answer. Continue to give them the objects for counting if necessary to achieve the correct answer. Spend several minutes on this exercise. As they are able to answer more each day without using the objects for counting, let them know that they are making good progress.
2. Turn to page 116. Tell the students that today they will learn to add 4 to a set. Use the objects as manipulatives to illustrate each exercise on page 116. Call the students' attention to the number facts in the center of the page. Have the students read each fact aloud before going on to the next example.
3. Turn to page 117. Ask the students to read the problem. (2 plus 4) Tell the students to make a set of 2 and a set of 4 and add them together. (6) Write the answer below the line. Read the problem again. (2 plus 4 equals 6.) Proceed in the same manner to complete page 117.


## LESSON 70

## MATERIALS NEEDED

- pencils
- paper
- objects for counting
- fact cards for 0's, 1's, 2's


## Objectives:

1. To use fact cards for 0 's, 1 's, 2's.
2. To write the number words to nine.
3. To learn number order.
4. To recognize colors and shapes.

## Teaching Pages 158 and 159:

1. Review the fact cards for 0 's, 1 's, and 2 's. Always begin fact card time with the facts being presented in order and always allow the students to have objects for counting when necessary. If the students know the facts in order and do not require objects for counting, scramble the fact cards and present them in any order.
2. Turn to page 158. Read the directions aloud. Have the children point to the first set and count the planes. Then point to the number words and read them aloud. Tell them to write the number symbol and the number word. Complete the page in this manner.
3. Turn to page 159. Ask the students to read the number symbols and the number words in the two columns. Then review number order in this way. Point to the first column and have them say with you, "This is the first number (6), this is the second number (3)" and so on down the list of numbers. If children become confused, use the cards with the numbers 1-9 written on them. Take the number 6 and say, "This is the first number we have taken." Ask them to name the next number (3), take it from the group and say, "This is the second number we have taken" and so on to zero. Read


## LESSON 87

## MATERIALS NEEDED

- pencils
- objects for counting
- cards with number symbols 0 through 9 from Lesson 30
- number words zero through nine from Lesson 86


## Objectives:

1. To subtract three objects from a set to 9 .
2. To find the missing number.
3. To find the number that comes before and after.
4. To put numbers in number order.

## Teaching Pages 14 and 15:

1. Place sets of $9,8,7$, and 6 objects in front of the students. Ask the students to take away (subtract) three objects from each set and tell how many are left.
2. Turn to page 14. Read the directions on the page. Tell the children to count the blocks in the sets. Explain to them that three blocks are being taken away and have them count the number left. Ask them to compare these sets to the sets of objects they were working with. Point to the number facts in the center and have the students identify the minus sign. Ask the students to read the number facts. (nine minus three equals six)
3. Turn to page 15 , and have the students complete the page using objects for counting.
4. Use the number symbol and number word cards to play a before and after or missing number game. Place two number symbol cards (3 and 5) in front of the students. Ask them to find the missing number word card and put it in the correct place. Select a number word card (seven) and ask the students to select the number symbol cards


## LESSON 102

## MATERIALS NEEDED

- pencils
- objects for counting
- addition fact cards to 9


## Objectives:

1. To count to 16 .
2. To learn about place value for 1's and 10's.

## Teaching Pages 49 and 50:

1. Turn to page 49. Have the students read the numbers at the top of the page. Ask if the numbers are in number order. (yes) Read the directions at the top of the page. Tell the class to point to the set of tricycles. Have them make the marks for this set and circle the number at the top of the page. Have them complete the other three sets in the same way. Read the second set of directions with the students. Have the students count the marks out loud and draw a circle around ten marks. Ask the students, "How many sets of tens?" (1) Have the children write the number 1 in the box. Ask them, "How many more?" (3) Have them write the 3 in the box. Ask them to read the number. (13) Follow the same steps to complete the page.
2. Turn to page 50. Tell the children to point to the first set of ducks and then follow the same procedures for 15 and 16 as they did in Lesson 101. Read the next set of directions with the students. Tell the students to count the marks out loud and draw a circle around ten marks. Ask the students, "How many sets of tens?" (1) Have the children write the number 1 in the box. Ask them, "How many more?" (4) Have them write the 4 in the box. Ask them to read the number. (14) Follow the same steps to complete the page.


## LESSON 134

## MATERIALS NEEDED

- pencils
- clock made in Lesson 93
- current calendar
- paper
- scissors
- paste or glue
- crayons through white
- pink crayon


## Objectives:

1. To tell the time of the half-hour.
2. To make a calendar.

## Teaching Pages 117 and 118:

1. Turn to page 117. Read the caption and instructions out loud. Have the children point to the first clock. State, "The long hand is on the six. What number is the short hand on? What time is it?" Point out to the class that the small hand moves with the long hand. Show the clockwise movement. Explain to the children that the hour is always the number that the short hand is moving away from. Have the class write the correct number on the line and say the answer aloud. Allow the children to complete this page independently.
2. Introduce the current calendar to the children, and review the current year, months, and days of week. Ask the students to select their favorite month (perhaps the months of their birthdays).
3. Turn to page 118. Compare the graph on page 118 to the month of each student's birthday on the current calendar. Tell them they are going to make a calendar page just like the months of their birthdays. Read the directions and have the children write the name of the month and the year on the blank lines. Ask the children to point to the days of the week while you say the names


## LESSON 155

## MATERIALS NEEDED

- pencils
- chart of numbers to 99


## Objectives:

1. To write number words and number facts.
2. To tell numbers before, after, and between.

## Teaching Pages 161 and 162:

1. Turn to page 161 and read the directions at the top of the page aloud. Have the children point to the lines. Dictate the number words zero through nine to the children while they write them on the lines. Read the second set of directions. Tell the children that you will dictate four number facts to them and that they should write the number facts in the boxes. Tell them to write neatly, to write the correct sign, and to remember to draw the line between the problem and the answer.
Dictate: Six minus two equals four.

$$
\begin{array}{rrrr}
6 & 9 & 4 & 7 \\
-2 \\
\hline 4 & -6 & +5 & +1 \\
\hline
\end{array}
$$

2. Turn to page 162. Read the first direction and have the children point to the first number. (9) Tell them to find the number on their number chart and say aloud the number that is before and the number after. Have them write the numbers on the lines. Read the second set of directions. Have the children point to the first set of numbers (7-9). Tell them to find the numbers on their number chart and say aloud the number that is between. Have them write the number on the line. Read the third direction and have the students find 19 on the number chart, then have them write the number after. Those students who understand the directions may complete the page independently. Others may require help as they complete each section.

```
GETTING READY FOR MATH | Student Book 2
```

Write the number before and the after.

| 8 | 9 | 10 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 23 | 24 | 25 | 52 53 54 <br> 37 38 39 <br> 48 49 50 | 67 68 <br> 81 78 | 82 |

Write the number between.

| $7 \quad 8 \quad 9$ | $56 \quad 57 \quad 58$ |
| :---: | :---: |
| $14 \underline{15} 16$ | $62 \quad 63 \quad 64$ |
| $27 \quad 28 \quad 29$ | $87 \quad 88 \quad 89$ |
| $30 \quad 31 \quad 32$ | $9 5 \longdiv { 9 6 } 9 7$ |

Write the number.

| after 19 | 20 | before 60 | 59 |
| :---: | :---: | :---: | :---: |
| before 30 | 29 | after 71 | 72 |
| after 42 | 43 | after 89 | 90 |
| after 59 | 60 | before 99 | 98 |

162 | Lesson 155

## STUDENT EVALUATION: LESSONS 121-160

## Following directions:

Use several objects to ask the student a series of questions. Place the objects in relation to each other so that the student can select the object that is:
$\qquad$ on the right $\qquad$ on the left $\qquad$ high $\qquad$ low
$\qquad$ on top $\qquad$ on the bottom
$\qquad$ below
$\qquad$ in the middle
$\qquad$ above $\qquad$ inside
$\qquad$ outside

## Comparisons:

Use a group of objects. Some objects should be the same size and some should be different sizes. Place the objects so that the student can select the objects that are:
$\qquad$ big $\qquad$ little $\qquad$ alike $\qquad$ different

## Matching:

Select six sets of related pictures or drawings-two in a set. Place them in two columns on a sheet of paper. Ask the student to match the related items. (The student should understand without being told that match means to draw a line between the related items.)
$\qquad$ The student requires an explanation of the word match.
$\qquad$ The student completes the task independently.

## Counting:

Ask the student to count aloud from 0 to 9 $\qquad$ from 0 to 19 $\qquad$ from 0 to 50 from 0 to 99 $\qquad$

## Write the number symbols:

Have the student write the number symbols from 0 to 9 $\qquad$ from 10 to 19 $\qquad$

## Colors:

Place a selection of colors (crayons or paint swatches, for example) in front of the student. Select a color and ask the student to say the name.
$\qquad$ red $\qquad$ yellow $\qquad$ green $\qquad$ blue $\qquad$ brown
$\qquad$ purple
$\qquad$ orange
$\qquad$ black $\qquad$ white $\qquad$ pink


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