1st grade | Teacher's Guide

## PAGE 13: BEFORE AND AFTER

## MATERIALS NEEDED

- pencil
- number symbol cards from page 12
- chart of numbers to 99


## Concept:

writing numbers before to 99

## Teacher Goal:

To teach the children to select the numbers before to 99 .

## Teaching Page 13:

Repeat the exercise from page 12 using the number symbol cards to identify numbers before and after.
Turn to page 13 and read the instructions. Work the two examples with the students and then allow them to complete the page independently. Be sure they understand that, on this page, they are to circle the

Put a circle around the number ...


The students should prepare for the Self Test. Ask the students to look over and read the Self Test but they should not write the answers to any questions. After looking over the Self Test the students should go to the beginning of the unit and reread the text and review the answers to the activities up to the Self Test.

The students are to complete the Self Test the next school day. This should be done under regular test conditions without allowing the students to look back. A good idea is to clip the pages together before the test.

## PAGE 14: SELF TEST 2

## MATERIALS NEEDED

- pencil
- chart of numbers to 99


## Concept:

number order to 99

## Teacher Goal:

To teach the children to learn to check their progress periodically.

## Teaching Page 14:

Turn to page 14. Read the directions to the children. Have the children repeat them after you while running their fingers under the sentence being read. Be sure the children understand what they are to do. If necessary, students may use the chart of numbers. Let the children complete the page. You may repeat the directions but give no other help.

Do not have the children check their own work. Check it as soon as you can, and go over it with each child. Show them where they did well and where they need extra help. If necessary, take time to review before going to the next section.

## PAGES 3 \& 4: ADDITION FACTS

## MATERIALS NEEDED

- pencils
- new operation symbol cards for +, -, =
- number symbol cards (Unit 101, page 12)
- addition fact cards (Unit 101, page 16; Unit 102, page 2)


## Concept:

add number facts

## Teacher Goal:

To teach the children to add number facts horizontally and vertically.

## Teaching Pages 3 and 4:

Turn to pages 3 and 4. Read the instructions at the top of the page with the children. Have them count aloud the number of dogs in the first two sets. Point to the symbols (,$+=$ ). Ask the children to read the problem aloud. (Three dogs plus two dogs equals five dogs.) Have the children point to the two number facts. Tell them that there are two ways to write their number facts, horizontally (across) and vertically (up and down). Ask them to read the number facts again. Follow the same procedure for the blocks. Ask the children to read the problem aloud as they point to the horizontal number fact. Tell them to fill in the vertical number fact. Have them fill in the blanks for the bunnies. They should follow the same steps to complete page 4.

Have the children use the number symbol cards and the new operation symbol cards to make addition number facts. Explain how the cards can be rearranged to show the facts horizontally and vertically. Ask the children to illustrate several number facts using the cards.

Select a group of number symbol cards and addition fact cards. Play a game of concentration.


4 | Section 1

## PAGE 5: ADDITION FACTS

## MATERIALS NEEDED

- pencils


## Concept:

add number facts horizontally

## Teacher Goal:

To teach the children to add number facts to 10 horizontally.

## Teaching Page 5:

Turn to page 5. Read the directions and have the children complete the number facts independently. When they have completed the page, select several facts at random and ask the students to read the facts aloud.

The students should prepare for the Self Test. Ask the students to look over and read the Self Test, but they should not write the answers to any questions. After looking over the Self Test the students should go to the

| Unit 2 \| ADD/SUETRACt TO 10, SHAPES |  |  |  |
| :---: | :---: | :---: | :---: |
| $0 \quad 1$ | 34 | 67 | 8910 |
| Write the number on the line. |  |  |  |
| $4+3=7$ | $4+0=4$ | $2+8=10$ | $1+0=\underline{1}$ |
| $3+0=3$ | $2+7=9$ | $4+2=6$ | $2+4=6$ |
| $7+2=9$ | $7+1=8$ | $3+3=6$ | $6+1=7$ |
| $1+9=10$ | $5+3=8$ | $1+2=3$ | $4+5=9$ |
| $8+1=9$ | $3+4=7$ | $1+8=9$ | $2+1=3$ |
| $9+0=9$ | $2+0=2$ | $5+4=9$ | $8+2=10$ |
| $3+1=4$ | $5+5=10$ | $3+7=10$ | $6+0=6$ |
| $1+5=6$ | $8+0=8$ | $4+1=5$ | $5+1=\underline{6}$ |
| $6+2=8$ | $1+7=8$ | $1+6=7$ | $4+6=10$ |
| $7+3=10$ | $2+6=8$ | $2+3=5$ | $3+6=9$ |
| $2+5=7$ | $1+3=4$ | $5+2=7$ | $4+4=8$ |
| $5+0=5$ | $6+3=9$ | $6+4=10$ | $2+2=4$ |
| $3+5=8$ | $7+0=7$ | $9+1=10$ | $3+2=5$ |
| $1+1=2$ |  |  | $1+4=5$ |
| Before you take the Self Test, study what you have read and done. The Self Test will check what you remember. |  |  |  |
|  |  |  | Section 1.5 | beginning of the unit and reread the text and review the answers to the activities up to the Self Test.

The students are to complete the Self Test the next school day. This should be done under regular test conditions without allowing the students to look back. A good idea is to clip the pages together before the test.

## PAGE 17: FRACTIONS

## MATERIALS NEEDED

- pencils
- paper
- groups of objects in even number sets (four pencils, ten beads, twelve nickels, six crayons, eight blocks)


## Concept:

fraction of one-half

## Teacher Goals:

To teach the children to find one-half of a set, and to write the fraction $1 / 2$.

## Teaching Page 17:

Give the children four pencils. Ask them to give half of the pencils back to you (2 pencils). Talk to the children again about the meaning of one-half. Explain to them that the four pencils represent one set. Ask them how many parts they divided the set into (2 parts). Have them draw a line on paper
 and write a 2 below the line to represent the number of parts into which the set has been divided. Have the children hold up the two pencils, and write a 1 above the line to represent the part of the set they are talking about. Ask the children to read the fraction (one-half). Ask them how many pencils are in one-half a set of four pencils (2 pencils). Repeat the same procedure with the ten beads. Emphasize that even though there are ten beads, they represent one set. Tell the children to divide the ten beads into two sets. Write the fraction on paper beginning with the number 2 below the line. Ask how many beads make up one-half of a set of ten. Continue in this manner with the set of twelve nickels, six crayons, and eight blocks.

Turn to page 17 and read the directions with the children. Emphasize that each picture represents one set. Have the children draw a line to divide each set into two parts, then write the fraction $1 / 2$ on the answer line. Ask them to say aloud, "One-half of a set of four boys is two boys," and so on.

## PAGE 18: FRACTIONS

## MATERIALS NEEDED

- pencils
- paper
- objects to illustrate one-half


## Concept:

fraction of one-half

## Teacher Goals:

To teach the children to find one-half of a single object or of a set, and to write the fraction $1 / 2$.

## Teaching Page 18:

Use the materials to talk about the fraction one-half to the children. Show them a single object, and have them illustrate one-half of the object. Ask the children to tell you how many halves there are (2). Give them a set of objects, and have them illustrate one-half of one set of objects. Be sure they understand the concept that many objects in a
 group represents a set of one.

Turn to page 18 and read the directions aloud. Tell the children that they should draw a line for each object or set to show one-half. Then, they should write the fraction $1 / 2$ on the answer line.

## PAGE 32: MEASURING INCHES

## MATERIALS NEEDED

- pencils
- addition fact cards for 4s through 6s
- paper
- ruler made in unit 101, page 25


## Concept:

measuring in inches

## Teacher Goal:

To teach the children to use their rulers to measure inches.

## Teaching Page 32:

Begin today's lesson with a review of addition fact cards $4 s$ through $6 s$.

Draw several lines on paper (in inches from one to six), and have the children measure each line. Ask the children to say the length of the line aloud. Be sure they use the word inches in giving their answer.


Turn to page 32. Read the directions at the top of the page. Point out the number line.
Have the children count from zero to twenty-five, pointing to the line as they count. Tell the children that Jim is going to his friend Raymond's house so that they can play catch with Jim's new ball. There are a lot of things to see as Jim walks along, trees and flowers, a sandbox in the park, and a picnic table to take a rest. Jim's path is laid out in inches on the paper. First, have the children estimate how far Jim walked (in inches) and write the number on the line at the top of the page. (Do not be concerned if children give exaggerated answers.) Then have them measure the distance. Tell them to measure each line and to keep adding on the number line for each measurement they take.
When finished, the number line should tell the children how far Jim walked. Write the number on the line at the bottom of the page. Have the children compare their estimations and their answers.

## PAGE 33: REVIEWING FACTS

## MATERIALS NEEDED

- pencils


## Concept:

review addition and subtraction facts

## Teacher Goal:

To teach the children to review addition and subtraction facts.

## Teaching Page 33:

Turn to page 33. Read the directions at the top of the page with the children, and allow them to complete the page independently. Be sure they are reading the signs (+ and -) carefully. They may use the number line at the top of the page to help them answer the math problems.
The children should prepare for the Self Test. Ask the children to look over and read the Self Test, but they should not write the
 answers to any questions. After looking over the Self Test, the children should go to the beginning of the unit and reread the text and review the answers to the activities up to the Self Test.

The children are to complete the Self Test the next school day. This should be done under regular test conditions, without allowing the children to look back. A good idea is to clip the pages together before the test.

## 5. NUMBER LINE

## PAGE 30: NUMBER WORDS

## MATERIALS NEEDED

- pencils
- addition fact cards for $6 \mathrm{~s}, 7 \mathrm{~s}$, and 8 s


## Concept:

number words to twenty

## Teacher Goal:

To teach the children to read and write number words to twenty.

## Teaching Page 30:

Turn to page 30. Read the directions with the children. Read the number words aloud with them several times until they say them easily. Have them look for clues to help them recognize the words (four in fourteen, "fif" for five in fifteen). Let them complete the page independently.

Review fact cards for $6 s, 7 s$ and $8 s$.

## COLUMN ADDITION AND ESTIMATION | Unit 5

## 5. NUMBER LINE

Write the number on the line.

| sixteen | 16 | fourteen | 14 |
| :---: | :---: | :---: | :---: |
| twenty | 20 | seventeen | 17 |
| eleven | 11 | thirteen | 13 |
| twelve | 12 | eighteen | 18 |
| nineteen | 19 | fifteen | 15 |

Write the word on the line.

| 11 | eleven |
| :---: | :---: |
| 12 | twelve |
| 13 | thirteen |
| 14 | fourteen |
| 15 | fifteen |


| 16 | sixteen |
| :---: | :---: |
|  | seventeen |
| 18 | eighteen |
| 19 | nineteen |
| 20 | twenty |

Write the number symbol or number word before and after.

| 151617 | eleven twelve thirteen |
| :---: | :---: |
| fifteen sixteen sevente | 111213 |
| $18 \quad 19 \quad 20$ | thirteen fourteen fifteen |
|  | 13 |

[^0]
## PAGE 31: NUMBER LINE

## MATERIALS NEEDED

- pencils


## Concept:

add and subtract on a number line

## Teacher Goal:

To teach the children to add and subtract on a number line.

## Teaching Page 31:

Turn to page 31, and point to the number line at the top of the page.

Read the first set of directions.
Tell the children to put their pencils on the number line at 6 and add 4.
Tell them to write on the line where they are now on the number line (10).

Have them subtract 3 and write where they are now on the line (7).


Have them add 5 and write where they are now (12).

Have them write the answer to, "Where did you end?" (12)
Have them complete the page in this manner. Their answers should be in number words for the second half of the page.


[^0]:    30 | Section

