## LETTER HOME

## Buttons: Sorting and Counting

Dear Family Member:
Your child will use buttons in a variety of grouping, counting, and sorting activities. We will use buttons to explore mathematical concepts and skills.
For example, your child will:

- estimate the number of buttons in a collection;
- count buttons by ones or by groups of twos, fives, or tens;
- count a large number of buttons-grouping by ones, tens, and hundreds;
- sort buttons by color, size, shape, number of holes, or some other aspect of the button; and
- graph and compare data about the buttons.

We need buttons for our classroom button collection. If you have any buttons you no longer need, please send them to school with your child so that we can add them to our class collection.


We encourage you to look for mathematical opportunities at home. For example:

- Sock Sorting. Ask your child to sort a pile of socks in a variety of ways (by color, by size, by design) before actually finding each sock's mate.
- Cracker Counting. Pour a dish of small crackers and ask your child to estimate how many are in the bowl. Then invite your child to find a way to group and count the crackers before eating them. Repeat with other objects such as popcorn or cereal.
- Fall Cleaning. Invite your child to help you sort through a drawer that might need cleaning. Encourage your child to sort like objects such as pens and pencils.


## Math Facts and Mental Math

This unit continues the systematic review and assessment of the addition facts. Students review the addition facts in Group C to increase and maintain fluency with the facts with sums to ten and to develop strategies for those with sums larger than ten.
Group C: $1+9,2+7,2+8,2+9,3+6,3+7,3+8,4+6,4+7,5+5,5+6$
Addition Facts. You can help your child develop strategies for these facts using the flash cards that are sent home or by making a set from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards in three stacks: Facts I
 Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, work on strategies for figuring them out. The facts in Group C include the facts that make ten (e.g., $6+4$ ) or are close to making ten (e.g., $6+3$ ). Use the $0-10$ Small Ten Frame Cards to practice naming the numbers that make ten and finding the sums close to ten.


For Facts I Can Figure Out, use the flash cards to develop fluency with the addition facts.
For Facts I Know Quickly, help your child use mental math strategies to add 10s related to the addition facts: $12+8$ (to practice $2+8$ ) or $50+50$ (to practice $5+5$ ).
Related Subtraction Facts. You can help your child develop strategies for the related subtraction facts also using the flash cards or the 0-10 Small Ten Frame Cards.

For Facts I Need to Learn, work on strategies for figuring them out.


You may also ask your child to tell an addition story and a related subtraction story for a fact.
For Facts I Can Figure Out, use the flash cards to develop fluency with the related subtraction facts.
For Facts I Know Quickly, help your child use mental math strategies to add 10s related to the subtraction facts: $20-8$ (to practice $10-8$ ) or $100-50$ (to practice $10-5$ ).

I look forward to working with your child as we sort, group, and count.
Sincerely,

## 0-10 Small Ten Frame Cards



Kuedmoう sిu!

## Unit 2: Home Practice

## Part 1 Addition Flash Cards: Group C

Take home your Triangle Flash Cards: Group C. Ask a family member to choose one flash card at a time for you to solve. Sort the flash cards into three piles: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn. Update your Addition Facts I Know chart. Clip the cards in the Facts I Know Quickly pile together and place them back into the envelope. Practice the facts in the last two piles again.

## Part 2 Make Ten or Use Ten

1. Complete each number sentence. Circle the part that makes ten.
Example: $8+2+1=11$
A. $9+1+4=\square$
B. $7+3+4=\square$
C. $7+5=7+\square+\square$
D. $5+5+1=$ $\square$
2. Is each number sentence true or false?
A. $3+6=6+4-1$

True or False
B. $7+2=2+7$

True or False
C. $7+2=7+3+1$

## Part 3 Trade Coins

Use coins or ten frames.

1. Frank has 34 pennies in his piggy bank. He trades as many as he can for dimes and nickels.
A. How many dimes will he have? $\qquad$
B. How many nickels? $\qquad$
C. How many pennies left over?
2. Ana has 26 pennies. She trades as many as she can for dimes and nickels.
A. How many dimes will she have? $\qquad$
B. How many nickels? $\qquad$
C. How many pennies left over? $\qquad$
3. Roberto has 47 pennies. He trades for dimes and nickels.
A. Show his coins.
B. Roberto found 3 more pennies. He made another trade. Draw his coins now.
C. How much money does he have in all?

## Part 4 Rule Machines

Use a number line, ten frames, or a 200 Chart. Solve each problem. Write a number sentence that shows your solution. Circle how you made ten in your number sentence.

Rule: Add 7

| Number | Split 7 | Number Sentence |
| :---: | :---: | :---: |
| 4 | $6+1$ | $4+6+1=11$ |
| 8 |  |  |
| 6 |  |  |
| 9 |  |  |
| 5 |  |  |

## Rule: Add 8

| Number | Split 8 | Number Sentence |
| :---: | :---: | :---: |
| 5 | $5+3$ | $(5+5+3=13$ |
| 8 |  |  |
| 6 |  |  |
| 9 |  |  |
| 4 |  |  |

Name
Part 5 More Rule Machines
Solve each problem. Follow the example.

| Rule: Subtract 5 |  |
| :---: | :---: |
| Number | Number Sentence |
| 15 | $15-5=10$ |
| 18 |  |
| 19 |  |
| 14 |  |


| Rule: Subtract 10 |  |
| :---: | :---: |
| Number | Number Sentence |
| 15 |  |
| 18 |  |
| 16 |  |
| 19 |  |


| Rule: Subtract 9 |  |
| :---: | :--- |
| Number | Number Sentence |
| 15 |  |
| 18 |  |
| 16 |  |
| 19 |  |

$\qquad$

## Part 6 How Many Buttons

Finish grouping and counting the buttons. Use buttons and cups or draw a picture.

1. Nila had not finished all her grouping and counting. She had 7 cups with 10 buttons in each and 23 loose buttons.


How many buttons did she have in all?
How many groups of $100 ?$ $\qquad$
How many groups of ten? $\qquad$
How many leftover buttons? $\qquad$
2. Shannon had 11 cups with 10 buttons in each and 38 buttons that were not in cups.


How many buttons did she have in all? $\qquad$
How many groups of $100 ?$ $\qquad$
How many groups of ten? $\qquad$
How many leftover buttons?

## Triangle Flash Cards: Group C

- To practice an addition fact, cover the corner with the highest number. Add the two uncovered numbers.
- To practice a subtraction fact, cover one of the smaller numbers and subtract from the highest number.


TG • Grade $2 \cdot$ Triangle Flash Cards: Group C

## Number Line Display




of


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## Which One Does Not Belong



## Michael sorted 8 buttons. He put 7 in one group and one in another group.

Draw eight buttons that could be Michael's buttons. In your drawing, show how seven are the same in some way and one is different.
$\qquad$

Michael sorted these buttons by $\qquad$ .

## Handful of Buttons Graph

## Group and Count Buttons



1. Kim grouped her buttons by fives and skip counted. There were 37 buttons. Draw a picture of the buttons to show how Kim grouped them.
2. Liz also had 37 buttons. She grouped them by tens to skip count. Draw a picture of the buttons to show how Liz grouped them.
3. Levi had 49 buttons. He grouped them by tens to count. Draw a picture of Levi's buttons to show how he grouped them.
4. Frank had 10 more buttons than Levi. He also grouped them by tens to count. How many buttons does Frank have?

Draw a picture of Frank's buttons to show how he grouped them.

## Mrs. Cook's Buttons



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## Button Word Problems

Show or tell how to solve each problem.
Write a number sentence.

1. Carla had 7 medium buttons. Kathy gave her more medium buttons. Now Carla has 11 medium buttons. How many buttons did Kathy give to Carla?

Number sentence $\qquad$

2. Miguel had some large buttons. Romesh gave him 4 more. Now he has 13 large buttons. How many large buttons did he have before Romesh gave him more?

Number sentence $\qquad$


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

$\qquad$
3. Julie had 6 small buttons before Mara gave her a handful of small buttons. Now Julie has 11 small buttons. How many buttons did Mara give her?

Number sentence $\qquad$

4. There are 7 medium buttons in Michael's handful. He finds more medium buttons on the floor. Now he has 10 medium buttons. How many medium buttons did he find on the floor?

Number sentence $\qquad$

5. Kathy made a bar on her graph for the large buttons in her handful. She found 3 more under her paper. Now she has to change her bar graph to show 12 large buttons. How many large buttons did Kathy have before she found more?

Number sentence $\qquad$

6. Chris and Peter had some small buttons. Miguel gave them 8 more. Now they have 16 small buttons. How many did they have at first?

Number sentence $\qquad$

$\qquad$
Ten Ten Frames


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## Scoop and Group

Name: $\qquad$ Partner's Name:

I scooped $\qquad$

I scooped about $\qquad$ .

I counted $\qquad$

My partner counted

Show this number two more ways.

## Group Objects at Home

```
                (SHomowork)
Dear Family Member:
In class, your child grabbed a handful of buttons, grouped them into piles of ten, and recorded the number of tens and buttons left over. Give your child a bowl filled with objects such as pennies, popcorn, cereal, or beads to use for the work on this page. Use less than 100 objects.
Thank you.
```

Take two handfuls from the bowl. Group the objects into piles of ten. Draw a picture of your groups. Record your answers and write a number sentence.
$\qquad$
Number sentence $\qquad$
Ask a family member to take two handfuls. Group the objects. Draw a picture and record your answers.
$\qquad$
ones left over
Number sentence $\qquad$
Use greater than (>) or less than (<) to compare your handfuls with your family member's handfuls.
$\qquad$

my handfuls

## Button Collection

Show or tell your strategy for solving the problem.
Sarah had 22 buttons in her button collection. She gave 8 to Jeanette and 10 to Eric. How many buttons did she have left in her collection?

| Button Collection <br> Feedback Box | Yes . . . | Yes, but . . . | No, but ... | No... |
| :---: | :---: | :---: | :---: | :---: |
| MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking. |  |  |  |  |
| MPE6. Use labels. I use labels to show what numbers mean. |  |  |  |  |

## Jackie's Work



## Button Collection

 Feedback BoxYes . . .
Yes, but . . .
No, but . .
No...
MPE5. Show my work.
I show or tell how I arrived at my answer so someone else can understand my thinking.

MPE6. Use labels. I use labels to show what numbers mean.

## Jerome's Work

## ODDDDDDDDDDDODФDDDD00 $22-10-8=4$



## Grace's Work

## $\left[\begin{array}{ll}080 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0\end{array}\right]-10=4$

Button Collection
Feedback Box
Yes . . .
Yes, but . . .
No, but . . .
No...

| MPE5. Show my work. <br> I show or tell how I <br> arrived at my answer <br> so someone else can <br> understand my <br> thinking. |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| MPE6. Use labels. I use <br> labels to show what <br> numbers mean. |  |  |  |  |

