| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Subtraction \#1 |
| Focus: | Subtraction |

## Materials:

White boards dice (3 for each pair)
Crayolas
Socks (for erasers)

| Opening |
| :--- |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |
| Gain prior knowledge by asking students the following questions |
| What do you know about subtraction? What does it mean when we say minus or take away? When do you use |
| subtraction? Write a number sentence that shows subtraction. Say the problem aloud to a partner. |

## Content (the "Meat")

## Problem of the Day

You have 6 dogs. Each dog has 2 ears. How many ears do you have? Draw a picture to show your answer.

## Fact Practice

Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.

$$
\begin{aligned}
& 1+2=3 \\
& 2+1=3 \\
& 3-2=1 \\
& 3-1=2
\end{aligned}
$$

After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, $3-1=2$, and $3-2=1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 9,8 and 17. Have students write the entire Fact Family on the white board.
$9+8=17$

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
$8+9=17$
$17-9=8$
$17-9=8$
Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 8, 9 and 17.

## Math Vocabulary

## Word for Today: minus

Description: The term means subtraction. It is represented by the symbol -. This symbol lets you know that there is a total and that you are going to remove part of that total. In subtraction the answer will tell you the difference between what you started with and what you end up with after you have taken something away.
Vocabulary Notebook Sample:

| New Wordminus | My Description <br> when you take something away you minus it |
| :--- | :--- |
| Personal Connection <br> It is easier to do a plus problem than a <br> minus problem | Drawing |

Students will complete this notebook for each vocabulary word that they are given.

## Activity

## Subtraction

Subtraction is a math process that starts with a total and then takes a specified amount away from the total and then finds the difference. When items are subtracted it does not mean that the items are necessarily destroyed, but it does mean that they are in another place, or eaten (if you are talking about cookies), etc.

When you subtract it is important that students understand that the largest number is on the top as the subtrahend. The minuend tells you the amount you are going to reduce the total by. The difference is the end results.

Work with students on subtraction problems by writing them on the board and talking them through it. You are going to subtract from a two digit number. Be certain that there is NO regrouping. Explain to students that they begin subtracting in the ones column, the column furthest to the right, and then work their way across to the left.

## Subtraction

## Directions:

1. Divide students into pairs.
2. Give each pair a Subtraction Card, white boards and a Subtraction Game

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from $1 / 2$ of a composition book.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

## Board.

3. Together, students work the problems one at a time on the Subtraction Card.
4. Pair then locates the answer on the Subtraction Game Board and crosses it out.
5. Game is over when all numbers have been crossed out.

## Closing

## Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?


## Debrief

What did you like about what we did today in math?
What would you like to do more of the next time we do math?
What does it mean when we say we found an answer by addition?

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade Subtraction

| 68 | 78 | 49 | 89 |
| ---: | ---: | ---: | ---: |
| -41 | $\underline{-32}$ | $\underline{-27}$ | $\underline{-21}$ |


| 29 | 58 | 59 | 29 |
| ---: | ---: | ---: | ---: |
| $\underline{-12}$ | $\underline{-23}$ | $\underline{-14}$ | $\underline{-10}$ |
|  |  |  |  |
| 39 | 68 | 79 | 67 |
| -24 | $\underline{-26}$ | $\underline{-20}$ | $\underline{-14}$ |


| 77 | 29 | 29 | 38 |
| ---: | ---: | ---: | ---: |
| $\underline{-33}$ | $\underline{-23}$ | $\underline{-14}$ | $\underline{-17}$ |

1st Grade Game Board


| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Subtraction \#2 |
| Focus: | Subtraction |

## Materials:

White boards dice (3 for each pair)
Crayolas
Socks (for erasers)

| Opening |
| :--- |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |
| Gain prior knowledge by asking students the following questions |
| What do you know about subtraction? What does it mean when we say minus or take away? When do you use |
| subtraction? Write a number sentence that shows subtraction. Say the problem aloud to a partner. |

## Content (the "Meat")

## Problem of the Day

John a 1 dime, 1 nickel and 3 pennies. He says he has $23 \phi$. Is he right? How do you know?

## Fact Practice

Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.

$$
\begin{aligned}
& 1+2=3 \\
& 2+1=3 \\
& 3-2=1 \\
& 3-1=2
\end{aligned}
$$

After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, $3-1=2$, and $3-2=1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 3, 9, and 12. Have students write the entire Fact Family on the white board.
$3+9=12$

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

$$
\begin{aligned}
& 9+3=12 \\
& 12-3=9 \\
& 12-9=3
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 3,9 , and 12.

## Math Vocabulary

## Word for Today: minus

Description: The term means subtraction. It is represented by the symbol -. This symbol lets you know that there is a total and that you are going to remove part of that total. In subtraction the answer will tell you the difference between what you started with and what you end up with after you have taken something away.
Vocabulary Notebook Sample:

| New Word <br> minus | My Description <br> when you take something away you minus it |
| :--- | :--- |
| Personal Connection <br> It is easier to do a plus problem than a <br> minus problem | Drawing |

## Activity

## Subtraction

Subtraction is a math process that starts with a total and then takes a specified amount away from the total and then finds the difference. When items are subtracted it does not mean that the items are necessarily destroyed, but it does mean that they are in another place, or eaten (if you are talking about cookies), etc.

When you subtract it is important that students understand that the largest number is on the top as the subtrahend. The minuend tells you the amount you are going to reduce the total by. The difference is the end results.

Work with students on subtraction problems by writing them on the board and talking them through it. You are going to subtract from a two digit number. Be certain that there is NO regrouping. Explain to students that they begin subtracting in the ones column, the column furthest to the right, and then work their way across to the left.

## Subtraction

## Directions:

1. Divide students into pairs.
2. Give each pair a Subtraction Card, white boards and a Subtraction Game Board.
3. Together, students work the problems one at a time on the Subtraction Card.
4. Pair then locates the answer on the Subtraction Game Board and crosses it out.
5. Game is over when all numbers have been crossed out.

## Closing

## Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?


## Debrief

What did you like about what we did today in math?
What would you like to do more of the next time we do math?
What is a number?
What is a letter?
Are they the same?

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade Subtraction

| 68 | 78 | 49 | 89 |
| ---: | ---: | ---: | ---: |
| -41 | $\underline{-32}$ | $\underline{-27}$ | $\underline{-21}$ |


| 29 | 58 | 59 | 29 |
| ---: | ---: | ---: | ---: |
| $\underline{-12}$ | $\underline{-23}$ | $\underline{-14}$ | $\underline{-10}$ |
|  |  |  |  |
| 39 | 68 | 79 | 67 |
| -24 | $\underline{-26}$ | $\underline{-20}$ | $\underline{-14}$ |


| 77 | 29 | 29 | 38 |
| ---: | ---: | ---: | ---: |
| $\underline{-33}$ | $\underline{-23}$ | $\underline{-14}$ | $\underline{-17}$ |

1st Grade Game Board


| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Ins and Outs \#1 |
| Focus: | Addition and Subtraction |

## Materials:

White boards Activity at the end of the lesson plan
Crayolas
Socks

| Opening |
| :---: |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |

## Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 3 , 4 , and 5 , and the rule for the pattern is to add 6 , you would end up with 9,10 , and 11 . If the rule for the pattern is to subtract 1 , you would end up with 2,3 , and 4 .

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day $4+4=8$ is a doubles fact. Write 3 other doubles | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> During the lesson check in |
| Fact Practice <br> Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $\begin{aligned} & 1+2=3 \\ & 2+1=3 \\ & 3-2=1 \\ & 3-1=2 \end{aligned}$ <br> After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ". <br> The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response. | with students repeatedly. <br> Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |

Today you will introduce this activity and begin with the Fact Family of 4, 5, and 9 Have students write the entire Fact Family on the white board.
$4+5=9$
$5+4=9$
$9-4=5$
$9-5=4$
Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 4,5 , and 9 . Share with students that this fact is a double-the addends are the same.

## Math Vocabulary

## Word for Today: minus

Description: The term minus refers to the sign that indicates you need to subtract. It is a straight line. When you minus one number from another, you make the larger number less by the second number that you say after the word minus. We would read a math problem like this: 5 minus 3 equals 2 . We would write it $5-3=2$
Have children complete the Vocabulary notebook.
Vocabulary Notebook Sample:

| New Word | My Description <br> Minus means to make less by a certain <br> number |
| :--- | :--- |
| Personal Connection <br> am 8 years old. My brother is $3.8-3$ <br> = 5, and 1 am 5 years older. | Drawing |

Students will complete this notebook for each vocabulary word that they are given.

## Activity

## Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and you apply the rule "add 10 ", then you will get 35 "out". The reverse of this, subtraction, would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.

Work several problems on the board with students. Set them up in the same format as the problems that they will be doing in the exercise.

It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation) Vocabulary Notebooks can be made from $1 / 2$ of a composition book

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

## In or Out \#1

Directions:

1. Divide students into pairs.
2. Give each pair an In or Out Board, and white boards.
3. Working together, pair solves each of the In or Out Board problems.
4. When In or Out Board is complete, pair joins with another pair and shares answers.

|  | Closing |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
| - Did we achieve our objectives? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade In Or Out \#1

| Rule: +5 |  | Rule: +10 |  | Rule: -5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| In | Out | In | Out | In | Out |
| 10 |  | 10 |  | 10 |  |
| 25 |  | 25 |  | 25 |  |
| 50 |  | 50 |  | 50 |  |
| Rule: +5 |  | Rule: +10 |  | Rule: -5 |  |
| In | Out | In | Out | In | Out |
| 10 |  | 30 |  | 30 |  |
|  | 25 |  | 25 |  | 25 |
| 50 |  | 46 |  | 46 |  |
| Rule: -5 |  | Rule: -10 |  | Rule: +5 |  |
| In | Out | In | Out | In | Out |
| 16 |  | 14 |  | 54 |  |
|  | 83 |  | 58 |  | 86 |
| 48 |  | 21 |  | 42 |  |
| Rule: +6 |  | Rule: +5 |  | Rule: -3 |  |
| In | Out | In | Out | In | Out |
| 63 |  |  | 19 | 42 |  |
|  | 30 |  | 36 |  | 29 |
|  | 12 | 84 |  |  | 60 |
| Rule: +7 |  | Rule: +4 |  | Rule: -9 |  |
| In | Out | In | Out | In | Out |
| 10 |  | 60 |  | 90 |  |
| 25 |  |  | 72 |  | 72 |
| 50 |  | 50 |  | 16 |  |


| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | In and Out \#2 |
| Focus: | Addition and Subtraction |

## Materials:

White boards
Crayolas
Socks (for erasers)
decks of cards with face cards and jokers removed
Activity at the end of the lesson plan

Opening
State the objective
Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

## Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 3 , 4 , and 5 , and the rule for the pattern is to add 6 , you would end up with 9,10 , and 11 . If the rule for the pattern is to subtract 1 , you would end up with 2,3 , and 4 . Do several examples of "ins and outs" on the board, inviting children to come to the board and complete the work.

## Content (the "Meat")

## Problem of the Day

Look at the Venn Diagram below. If you want to write the letter V, where will you put it? How do you know that you are correct?

straight lines curves

## Fact Practice

Fact Practice for $1^{\text {st }}$ grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.

$$
\begin{aligned}
& 1+2=3 \\
& 2+1=3 \\
& 3-2=1
\end{aligned}
$$

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

## $3-1=2$

After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, $3-1=2$, and $3-2=1$ ".
You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 5, 9 and 14.
Have students write the entire Fact Family on the white board.

$$
\begin{aligned}
& 5+9=14 \\
& 9+5=14 \\
& 14-5=9 \\
& 14-9=5
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 5, 9, and 14.
Word for Today: difference Math Vocabulary

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from $1 / 2$ of a composition book.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

Work several problems on the board with students. Set them up in the same format as the problems that they will be doing in the exercise.

## In or Out \#2

## Directions:

1. Divide students into pairs.
2. Give each pair an In or Out Board, and white boards.
3. Working together, pair solves each of the In or Out Board problems.
4. When In or Out Board is complete, pair joins with another pair and shares answers.

| Closing |
| :---: |
| Review |
| Say: <br> - Please recap what we did today. <br> - Did we achieve our objectives? |
| Debrief |
| What did you like about what we did today in math? <br> How can you use the information from today in school tomorrow? |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade In Or Out \#2

| Rule: +5 |  | Rule: +10 |  | Rule: -5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| In | Out | In | Out | In | Out |
| 10 |  | 10 |  | 10 |  |
| 25 |  | 25 |  | 25 |  |
| 50 |  | 50 |  | 50 |  |
| Rule: +5 |  | Rule: +10 |  | Rule: -5 |  |
| In | Out | In | Out | In | Out |
| 10 |  | 30 |  | 30 |  |
|  | 25 |  | 25 |  | 25 |
| 50 |  | 46 |  | 46 |  |
| Rule: -5 |  | Rule: -10 |  | Rule: +5 |  |
| In | Out | In | Out | In | Out |
| 16 |  | 14 |  | 54 |  |
|  | 83 |  | 58 |  | 86 |
| 48 |  | 21 |  | 42 |  |
| Rule: +6 |  | Rule: +5 |  | Rule: -3 |  |
| In | Out | In | Out | In | Out |
| 63 |  |  | 19 | 42 |  |
|  | 30 |  | 36 |  | 29 |
|  | 12 | 84 |  |  | 60 |
| Rule: +7 |  | Rule: +4 |  | Rule: -9 |  |
| In | Out | In | Out | In | Out |
| 10 |  | 60 |  | 90 |  |
| 25 |  |  | 72 |  | 72 |
| 50 |  | 50 |  | 16 |  |


| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Ins and Outs \#3 |
| Focus: | Addition and Subtraction |

## Materials:

White boards
Activity at the end of this lesson plan
Crayolas
Socks (for erasers)


## Content (the "Meat")

## Problem of the Day

There are two bags with marbles in them. Each bag has 6 marbles. How many marbles are there all together? Draw your answer.

## Fact Practice

Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.

$$
\begin{aligned}
& 1+2=3 \\
& 2+1=3 \\
& 3-2=1 \\
& 3-1=2
\end{aligned}
$$

After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.
through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 6, 9 and 15.
Have students write the entire Fact Family on the white board.
$6+9=15$
$9+6=15$
$15-6=9$
$15-9=6$
Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 6, 9 and 15.

## Math Vocabulary

Word for today: subtraction
Description: The term subtraction refers to an operation in math where you start with a total and then take some of it away and then you find out how much you have left. Subtraction is the opposite of addition.
Have children complete the vocabulary notebook for the word context.
Vocabulary Notebook Sample:

| New Word | My Description <br> subtraction <br> taking something away from a total |
| :--- | :--- |
| Personal Connection | Drawing |
| I like to do subtraction problems. |  |

## Activity

## Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and you apply the rule "add 10 ", then you will get 35 "out". The reverse of this, subtraction, would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.
Work several problems on the board with students. Set them up in the same format as the problems they will be doing in the exercise.

## In or Out \#3

## Directions:

1. Divide students into pairs.
2. Give each pair an In or Out Board, and white boards.
3. Working together, pair solves each of the In or Out Board problems.
4. When In or Out Board is complete, pair joins with another pair and shares answers.

It is important to review academic math vocabulary often throughout the day.
Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation). Vocabulary Notebooks can be made from $1 / 2$ of a composition book.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.


## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade In Or Out \#3


| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Ins and Outs \#4 |
| Focus: | Addition and Subtraction |

## Materials:

White boards
Activity at the end of the lesson plan
Crayolas
Socks (for erasers)

| Opening |
| :---: |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |

## Gain prior knowledge by asking students the following questions

When you add and subtract, there can be rules that will help you have a pattern. For example, if you have the numbers 13 , 15 , and 17 , and the rule is plus 10 , you will end up with 23,25 , and 27 . What would the answers be if you had the same rule and you started with number 19, 21, and 23. If the rule for the pattern is to subtract 2 , and you began with $11,13,15$, and 17 , what would you end up with? Do several other examples of "ins and outs" on the board, inviting children to come to the board and complete the work.

## Content (the "Meat")

## Problem of the Day

Look at the table below. The table shows how many cookies Martin ate each day. How many cookies do you think Martin will eat on Friday if he follows the pattern of the other days?

| Day | M | T | W | Th | F |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\#$ | 2 | 3 | 4 | 5 |  |

## Fact Practice

Fact Practice for $1^{\text {st }}$ grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.
$1+2=3$
$2+1=3$
$3-2=1$
$3-1=2$

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1".
You should have them practice this conversation (exactly as it is written) with $3-5$ other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 7, 9 and 16.
Have students write the entire Fact Family on the white board.

$$
\begin{aligned}
& 7+9=16 \\
& 9+7=16 \\
& 16-7=9 \\
& 16-9=7
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 7,9 , and 16.

| Math Vocabulary |  |
| :--- | :--- |
| Word for today: number sentence |  |
| Description: The term number sentence refers to the problem that we write that |  |
| demonstrates the math for the story we read. A number sentence can look like this: $8-3$ |  |
| $=5$ is a number sentence. The story is this: Judy had 8 cookies. She gave 3 to her best |  |
| friend. How many cookies does Judy have left. Write a number sentence for this story: |  |
| Judy has 9 flowers. She gave 4 to her grandmother. How many flowers does she have |  |
| left? |  |
| Review the entry in your Vocabulary Notebook for the word number sentence. Add |  |
| anything that you think is important. |  |

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from $1 / 2$ of a composition book.

## Ins and Outs

Doing addition is like knowing that if you put something "in" and you apply a rule to it, you will have an "out" that creates a pattern. For example: if you put "in" the number 25 and

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is
you apply the rule "add 10 ", then you will get 35 "out". The reverse of this, subtraction, $\quad$ Complete" center. would be to start with an "out", reverse the rule (if it says add 10 then you would reverse that to subtract 10) and you would have the amount that was put in to begin with.

Understanding this process helps students understand that addition and subtraction are reciprocal processes.

Work several problems on the board with students. Set them up in the same format as the problems they will be doing in the exercise.

## In or Out \#4

Directions:

1. Divide students into pairs.
2. Give each pair an In or Out Board, and white boards.
3. Working together, pair solves each of the In or Out Board problems.
4. When In or Out Board is complete, pair joins with another pair and shares answers.

|  | $\quad$ Closing |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
| - Did we achieve our objectives? |  |
| What did you like about what we did today in math? $\quad$ Debrief |  |
| What would you like to do more of the next time we do math? |  |
| What are the different shapes that you made with the marshmallows and toothpicks |  |
| Where can you find those shapes in the world? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

1st Grade In Or Out \#4

| Rule: +6 |  | Rule: +2 |  | Rule: -7 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| In | Out | In | Out | In | Out |
| 10 |  | 10 |  | 10 |  |
| 25 |  | 25 |  | 25 |  |
| 50 |  | 50 |  | 50 |  |
| Rule: +10 |  | Rule: +3 |  | Rule: -8 |  |
| In | Out | In | Out | In | Out |
| 10 |  | 30 |  | 30 |  |
|  | 25 |  | 25 |  | 25 |
| 50 |  | 46 |  | 46 |  |
| Rule: -7 |  | Rule: -6 |  | Rule: +2 |  |
| In | Out | In | Out | In | Out |
| 16 |  | 14 |  | 54 |  |
|  | 83 |  | 58 |  | 86 |
| 48 |  | 21 |  | 42 |  |
| Rule: +4 |  | Rule: +1 |  | Rule: -8 |  |
| In | Out | In | Out | In | Out |
| 63 |  |  | 19 | 42 |  |
|  | 30 |  | 36 |  | 29 |
|  | 12 | 84 |  |  | 60 |
| Rule: +3 |  | Rule: +7 |  | Rule: -10 |  |
| In | Out | In | Out | In | Out |
| 10 |  | 60 |  | 90 |  |
| 25 |  |  | 72 |  | 72 |
| 50 |  | 50 |  | 16 |  |


| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Puzzles \#1 |
| Focus: | Addition and Subtraction |

## Materials:

White boards
Crayolas
Socks (use as erasers)
Activity at the end of this lesson plan
Activiy at the end of this lesson plan

## Opening

## State the objective

Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and subtraction. We are also going to practice some of the math skills that we will need to be excellent at math.

Gain prior knowledge by asking students the following questions
What do you know about telling time? What is an analog clock? How many numbers are on the clock face? Name 5 different shapes. On your white board, draw those shapes. What number comes before 13? What number comes after?

| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Mr. Smith has 9 boys and 7 girls in his class. He has 16 soccer balls. Does Mr. Smith have enough soccer balls to have one for each student? | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in with students repeatedly. |
| Fact Practice <br> Fact Practice for $1^{\text {st }}$ grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $\begin{aligned} & 1+2=3 \\ & 2+1=3 \\ & 3-2=1 \\ & 3-1=2 \end{aligned}$ <br> After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ". <br> The other student will respond with "Yes, and since that is true, $3-1=2$, and $3-2=1$ ". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response. <br> Today you will introduce this activity and begin with the Fact Family of 8,9 and 17. Have students write the entire Fact Family on the white board. | Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |

$8+9=17$
$9+8=17$
$17-8=9$
$17-9=8$
Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 8, 9 and 17.

## Math Vocabulary

## Word for Today: minuend

Description: The term minuend is used to describe the total in a subtraction problem that you are subtracting from. In a number sentence, the minuend is the first number in the problem. In the problem, $6-2=4$, the 6 is the minuend.
Have children revisit the entry in the Vocabulary Notebook for the word how many.

Vocabulary Notebook Sample:

| New Word <br> minuend | My Description <br> the number you subtract from |
| :--- | :--- |
| Personal Connection <br> In the number sentence $9-3=6,9$ is the <br> minuend. | Drawing |

## Activity

## Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.
Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

## Puzzles \#1

## Directions:

1. Divide students into pairs.
2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
3. Pair works together to solve the puzzles.
4. When puzzles are finished, pair finds another pair to share work with.
5. Activity is over when all puzzles have been solved.

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from $1 / 2$ of a composition book.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

| Closing |  |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
|  |  |
|  |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

## 1st Grade Puzzles \#1



Count by ones. Write in the missing numbers.
$34,35,36,37$, $\qquad$ , , _ , 41, 42, 43, $\qquad$ , $\qquad$ , $\qquad$ 47, 48,

49, 50, $\qquad$ , ,

| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Puzzles \#2 |
| Focus: | Addition and Subtraction |

## Materials:

White boards Activity at the end of the lesson plan
Crayolas
Socks

| Opening |
| :--- |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |
| Gain prior knowledge by asking students the following questions |
| What do you know about telling time? What is an analog clock? How many numbers are on the clock face? Name 5 |
| different shapes. On your white board, draw those shapes. What number comes before 29? What number comes after? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Here is one way to show 9 . Write at least 2 other ways to show 9 . $3+3+3=9$ | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in with students repeatedly. |
| Fact Practice <br> Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day. Children will look at the math family. (We will begin with 1 more, then 2 more, etc.) They will write the problem in four ways. $\begin{aligned} & 1+2=3 \\ & 2+1=3 \\ & 3-2=1 \\ & 3-1=2 \end{aligned}$ <br> After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ". <br> The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response. <br> Today you will introduce this activity and begin with the Fact Family of 7, 7, and 14. | Check in about what is happening and what they are thinking. <br> Take advantage of any teachable moments. <br> Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. <br> When possible, engage students in a "teach to learn" opportunity and have the student become the teacher. |

Have students write the entire Fact Family on the white board.

$$
\begin{aligned}
& 7+7=14 \\
& 7+7=14 \\
& 14-7=7 \\
& 14-7=7
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 7,7 and 14. Ask students to give you examples of doubles. Ask students to tell how doubles are different than other fact families.

## Math Vocabulary

## Word for Today: difference

Description: The term difference is the word we use to describe the answer to a subtraction problem. The word is difference because it is very descriptive of the operation of subtraction. You start with a total, take some items away, and what you have left is the difference. Look at this problem: $7-5=2$. The difference is 2 .
Review the entry in your Vocabulary Notebook for the word difference. Share it with a friend.
Vocabulary Notebook Sample:

| New Word | My Description <br> difference |
| :--- | :--- |
| In subtraction the amount you have left when <br> you subtract |  |
| The difference of $12-4$ is 8. In other <br> words, 12 is 4 more than 8 or 8 more <br> than 4. | Drawing |

## Puzzles, Puzzles, Puzzles

Activity
Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
5. Activity is over when all puzzles have been solved.

## Closing <br> Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?


## Debrief

What did you like about what we did today in math?
What would you like to do more of the next time we do math?
Give an example of how you will use what we did today in school tomorrow.

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

## 1st Grade Puzzles \#2



Count backward by ones. Write in the missing numbers.
$156,155,154$, $\qquad$ , ——, $\qquad$
$\qquad$ , 149, 148,

147, $\qquad$ , $\qquad$ ,

| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Puzzles \#3 |
| Focus: | Addition and Subtraction |

## Materials:

White boards Activity at the end of the lesson plan
Crayolas
Socks (for erasers)

| Opening |
| :--- |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |
| Focus Student's Prior Knowledge |
| What do you know about telling time? What is an analog clock? Draw one and show the time 3:00. How many numbers |
| are on the clock face? Name 5 different shapes. On your white board, draw those shapes. What number comes before |
| 41? What number comes after? |

## Content (the "Meat")

## Problem of the Day

There are 4 nests and each nest has 2 eggs. How many eggs are there all together? Draw a picture.

## Fact Practice

Fact Practice for $1^{\text {st }}$ grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.

$$
\begin{aligned}
& 1+2=3 \\
& 2+1=3 \\
& 3-2=1 \\
& 3-1=2
\end{aligned}
$$

After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, 3-1 = 2, and 3-2 = 1". You should have them practice this conversation (exactly as it is written) with $3-5$ other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 8, 8 and 16. Have students write the entire Fact Family on the white board.

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking.
When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

$$
\begin{aligned}
& 8+8=16 \\
& 8+8=16 \\
& 16-8=8 \\
& 16-8=8
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 8, 8, and 16.

## Math Vocabulary

## Word for Today: addend

Description: The term addend is a word that we use to describe the numbers that we add together in an addition problem. In the problem $5+6=11,5$ and 6 are the addends. What are the addends in these two problems: $3+2=5$ or $6+3=9$.
Have children review the Vocabulary notebook for the word addend.

## Vocabulary Notebook Sample:

$\left.\begin{array}{|l|l|}\hline \text { New Word } \\ \text { addend }\end{array} \quad \begin{array}{c}\text { My Description } \\ \text { The two or more numbers that you add } \\ \text { together are the addends }\end{array}\right\}$

## Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.
Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

## Puzzles \#3

## Directions:

1. Divide students into pairs.
2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
3. Pair works together to solve the puzzles.
4. When puzzles are finished, pair finds another pair to share work with.
5. Activity is over when all puzzles have been solved.

It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
When possible, have students experience the word (Ex. 4 students creating a right angle, multiple students acting out an equation).
Vocabulary Notebooks can be made from $1 / 2$ of a composition book.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

|  | Closing |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
|  |  |
|  |  |
| What did you like about what we did today in math? <br> What is a cube? <br> How many sides does a cube have? |  |

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.

## 1st Grade Puzzles \#3



Count by fives. Write in the missing numbers.

25,30 , $\qquad$ , $\qquad$ , 50, 55, $\qquad$ , _ $\qquad$ , 75, 80 $\qquad$

| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Puzzles \#4 |
| Focus: | Addition and Subtraction |

## Materials:

White boards Activity at the end of the lesson plan
Crayolas
Socks (use as erasers)

| Opening |
| :--- |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |
| Gain prior knowledge by asking students the following questions |
| What do you know about telling time? Draw a digital clock and show the time 5:30. How many numbers are on the clock |
| face? Name 5 different shapes. On your white board, draw those shapes. What number comes before 86? What number |
| comes after? |

## Content (the "Meat")

## Problem of the Day

If $3+\hat{z}=9$, what is the value of the ? How do you know you are correct?

## Fact Practice

Fact Practice for 1 st grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.

$$
\begin{aligned}
& 1+2=3 \\
& 2+1=3 \\
& 3-2=1 \\
& 3-1=2
\end{aligned}
$$

After they have written the problem in all 4 ways they will find a partner and say,
"If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1".
You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 9,9 and 18. Have students write the entire Fact Family on the white board.
$9+9=18$

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly.
Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

$$
\begin{aligned}
& 9+9=18 \\
& 18-9=9 \\
& 18-9=9
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 9. 9.and 18.

## Math Vocabulary

## Word for today: plus

Description: Plus is a term we use in a addition problem. It tells you to combine 2 or more amounts to find a total. When you plus something, you add things together. Plus is a word that means adding something.
Review the entry for the word plus that is in your Vocabulary notebook.
Vocabulary Notebook Sample:

| New Word plus | My Description <br> plus means to add together |
| :--- | :--- | :--- |
| Personal Connection <br> For my collection I have 3 stamps plus <br> the 2 new ones I got today. | Drawing |

## Activity

## Puzzles, Puzzles, Puzzles

Puzzles can give students an opportunity to practice a variety of math operations. The next several days, pairs of students will have the opportunity to practice a variety of skills that they are developing.
Review each of the Puzzles with the students (changing the numbers so they are not just redoing when they work in their pairs). Each puzzle sheet will have 5 parts. There will be something with addition, telling time, numbers in and out/ or before/after, geometry, and counting.

## Puzzles \#4

## Directions:

1. Divide students into pairs.
2. Give each pair a Puzzle sheet inside a sheet protector or laminated.
3. Pair works together to solve the puzzles.
4. When puzzles are finished, pair finds another pair to share work with.
5. Activity is over when all puzzles have been solved.

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

|  | Closing |
| :--- | :--- |
| Say: | Review |
| - Please recap what we did today. |  |
|  |  |

## Reflection (Confirm, Tweak, Aha!)

- Ask students to think about what they did today in math.
- Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
- Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
- Ask them to comment on something (if anything) they have learned today that was brand new to them.


## 1st Grade Puzzles \#4

Write a number in the space closest to

| Component | Math |
| :--- | :--- |
| Grade Level: | First Grade |
| Lesson Title: | Student Activity Choice |
| Focus: | Review |

## Materials:

White boards
Materials for games played the past 10 days
Crayolas
Socks (use for erasers)

| Opening |
| :--- |
| State the objective |
| Today we are going to learn some math vocabulary-words that we need to use when we talk about addition and |
| subtraction. We are also going to practice some of the math skills that we will need to be excellent at math. |
| Gain prior knowledge by asking students the following questions |
| Ask children what they know about addition and subtraction. Ask them to share what they do to write number sentences? |
| Ask them about story problems and how they connect to number sentences? |

## Content (the "Meat")

Problem of the Day
List 6 things in your classroom that are longer than your shoe.

## Fact Practice

Fact Practice for $1^{\text {st }}$ grade is looking at number families, so you are looking at both addition and subtraction. The key is for children to learn that numbers have a relationship with one another in adding and subtracting. Fact practice will follow this pattern every day.
Children will look at the math family. (We will begin with 1 more, then 2 more, etc.)
They will write the problem in four ways.
$1+2=3$
$2+1=3$
$3-2=1$
$3-1=2$
After they have written the problem in all 4 ways they will find a partner and say, "If $1+2=3$, then $2+1=3$ ".
The other student will respond with "Yes, and since that is true, 3-1=2, and 3-2=1". You should have them practice this conversation (exactly as it is written) with 3-5 other students every day. On the $5^{\text {th }}$ day, you will utilize all 4 problems from the days before, and the conversation will follow the pattern, but the second responder will need to quickly look through his/her cards (of course we hope they remember without looking) and gives the correct response.
Today you will introduce this activity and begin with the Fact Family of 10,10 , and 20 Have students write the entire Fact Family on the white board.
$10+10=20$
$10+10=20$

## *Activity $\rightarrow$ Teachable Moment(s) throughout

During the lesson check in with students repeatedly. Check in about what is happening and what they are thinking.
Take advantage of any teachable moments.
Stop the class and focus on a student's key learning or understanding. Ask openended questions to determine what the rest of the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.

$$
\begin{aligned}
& 20-10=10 \\
& 20-10=10
\end{aligned}
$$

Bring two students up to practice the conversation.
Try it again with several other pairs of students.
Then have children find a partner and practice the conversation. Do this at least 4 times.
Remember that today they are only doing the Fact Family of 10, 10, and 20.

Activity
Today is a review day. Students should select from the following list of activities:

## Subtraction

In or Out \#1
In or Out \#2
In or Out \#3
Puzzles \#1
Puzzles \#2
Puzzles \#3
Puzzles \#4

Focus on having young people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.

## Closing

## Review

Say:

- Please recap what we did today.
- Did we achieve our objectives?


## Debrief

Which of the games did you enjoy playing the most?
What about this game is fun for you?

## Reflection (Confirm, Tweak, Aha!)

1. Ask students to think about what they did today in math.
2. Ask them to comment on what they did today was something they already knew how to do. (Confirmation)
3. Ask them to comment on what they did today that was like something they had done before except in one particular way which was new to them. (Tweak)
4. Ask them to comment on something (if anything) they have learned today that was brand new to them.
