| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Add 'Em Up |
| Focus: | Addition |


| Materials:   <br> White boards Vocabulary Notebooks Socks <br> Crayolas Dice  $\mathbf{l}$ |
| :--- | :--- | :--- |


| Opening |
| :--- |
| $\quad$ State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Count backwards by 2's starting at the number 32. Write the numbers as you say them. When you are finished, are the numbers you wrote down "odd" or "even"? Tell how you know. | $\begin{aligned} & \text { *Activity } \rightarrow \text { Teachable Moment(s) } \\ & \text { throughout } \\ & \text { During the lesson check in with } \\ & \text { students repeatedly. } \end{aligned}$ |
| Fact Practice <br> Spokes on a Wheel <br> 1. Divide students into pairs <br> 2. On a white board, student draws a small circle with 9 spokes coming out of it. (Should look like a bicycle tire.) <br> 3. Have students choose to put a 6,7 or 8 in the center circle. <br> 4. Student rolls two dice and adds the pips (dots). <br> 5. Taking this total, student writes a math problem on one of the spokes (eg. 7 is in the circle and students rolls a 3 and 5 which totals 8 . The spoke equation would look like $7+8=15$ <br> 6. Process continues until all spokes have an equation. | 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 open-ended 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. |

## Math Vocabulary

## Word for Today: addend

Description: The addends of an addition problem or the numbers that you are adding together. In these examples: 283
$+6 \quad+47$
The addends of the first problem are 2 and 6 , the addends of the second are 83 and 47. A problem can have more than tree addends.
Students complete the Vocabulary Notebook

Vocabulary Notebook Sample:

| New Word | My Description <br> Numbers that you add together in an <br> addition problem |
| :--- | :--- |
| Personal Connection | Drawing |
| There are three addends in that problem: |  |
| 5,6, and 7. |  |

## Activity <br> Add 'em Up

Demonstrate: On the board or chart paper make a grid with three columns. Label the first column "Addend \#1", the second column "Addend \#2), and the third column, "sum" (which is the word that describes an addition answer. Tell students to find a partner and that together with the partner, they will create number sentences, circling the addends in each of the sentences.
For example, if I roll a " 6 " then this would become one of the addends. If my partner rolls a " 5 ", then this is a second addend. The number sentence would look like this:

$$
6+5=11
$$

Each pair of students should create a minimum of 10 number sentences, rolling the addends with the dice.

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

Review
Say:

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


## Debrief

## Three Whats

Ask the following three what questions:
What was your key learning for the day?
What opportunities might you have to do this same thing in the "real world"?
What advice would you give to a "new" student getting ready to do this activity?

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.

| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Bingo and Sum |
| Focus: | Addition |

## Materials:

| White boards | Vocabulary Notebooks |
| :--- | :--- |
| Crayolas | Hundred's Chart (attached to this lesson plan) |
| Socks |  |


| Opening |
| :--- |
| State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |

## Content (the "Meat")

Problem of the Day
You are going to add several numbers together and then determine whether the answer is odd or even. Then you will discuss why you think what you think.
Begin with the number 3
Add 7
Add 2
Subtract 5
What is the total? Is it odd or even? How do you know? Why do you think this occurred?

## Fact Practice

## Addition Ladder

1. Give each student a white board (include marker or crayola)
2. Student should draw a ladder like the one below.

3. Have student roll 2 dice, total the pips and then add that number to each of the

| numbers in the ladder, writing the sum to the right of the number. |  |
| :---: | :---: |
| Math Vocabulary <br> Word for Today: sum <br> Description: The sum is the total that is reached when addends are added together. The word sum is another word for total or answer. In the number sentence $4+5=8$, the numeral 8 represents the sum. <br> Create an entry in your Vocabulary Notebook. <br> Vocabulary Notebook Sample: <br> Demonstrate: Show students a Bingo card. Tell them that you are going to divide into groups of 3-4. Each group will be responsible for finding the sum for each of 5 problems. When the team has completed the problems, the sums will be listed on the board or chart paper. Once all of the sums have been found, each student will enter one of the sums in one of the spaces on the Bingo Card. (Note: Not all answers will be used) Once everyone has a unique Bingo Card, the Program Leader will call the sums and students will play the game exactly like Bingo. (Note: unlike Bingo the answers can be in any column). <br> (Bingo card attached) (Problems are also attached.) | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. <br> When possible, have students experience the word. (Ex. 4 students creating a right angle, multiple students acting out an equation.) <br> Vocabulary Notebooks can be made from $1 / 2$ of a composition book. <br> 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!)

- 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.

Consult 4 Kids Lesson Plans
Bingo Card

| B | I | $\mathbf{N}$ | $\mathbf{G}$ | $\mathbf{0}$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  | Free |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Team \#1

| 14 | 10 | 21 | 33 | 17 |
| ---: | ---: | ---: | ---: | ---: |
| +13 | $\underline{+23}$ | $\underline{8}$ | $\underline{+12}$ | $\underline{+11}$ |

Team \#2

| 7 | 11 | 22 | 8 | 14 |
| ---: | ---: | ---: | ---: | ---: |
| +12 | $\underline{+13}$ | $\underline{+41}$ | $\underline{10}$ | +24 |

Team \#3

| 26 | 42 | 61 | 16 | 10 |
| ---: | ---: | ---: | ---: | ---: |
| +11 | $\underline{+13}$ | $\underline{+24}$ | $\underline{+42}$ | $\underline{+13}$ |

Team \#4

| 17 | 3 | 35 | 33 | 23 |
| ---: | ---: | ---: | ---: | ---: |
| +32 | $\underline{+14}$ | $\underline{+53}$ | $\underline{+54}$ | $\underline{+16}$ |

Team \#5

| 32 | 20 | 12 | 10 | 32 |
| ---: | ---: | ---: | ---: | ---: |
| +22 | $\underline{+37}$ | $\underline{+13}$ | $\underline{+20}$ | $\underline{+3}$ |

Team \#6

| 23 | 21 | 31 | 14 | 45 |
| ---: | ---: | ---: | ---: | ---: |
| $\underline{+24}$ | $\underline{+11}$ | $\underline{+22}$ | $\underline{+12}$ | $\underline{+14}$ |

Team \#7

| 42 | 13 | 13 | 13 | 20 |
| ---: | ---: | ---: | ---: | ---: |
| +22 | $\underline{+53}$ | $\underline{+56}$ | $\underline{+60}$ | $\underline{+11}$ |

Consult 4 Kids Lesson Plans


Answers

| 27 | 33 | 29 | 45 | 28 |
| :---: | :---: | :---: | :---: | :---: |
| 19 | 24 | 63 | 18 | 38 |
| 37 | 55 | 85 | 58 | 23 |
| 49 | 17 | 88 | 87 | 39 |
| 54 | 57 | 25 | 30 | 35 |
| 47 | 63 | 69 | 26 | 59 |
| 64 | 66 |  | 31 |  |


| Component: | Math |
| :--- | :--- |
| Grade Level: | 2nd Grade |
| Lesson Title: | First to 100 |
| Focus: | Addition |

## Materials:

| White boards | Vocabulary Notebooks |
| :--- | :--- |
| Crayolas | 12 sided dice $(1$ for each child $)$ |
| Socks | deck of cards for every 2 children |


| Opening |
| :--- |
| State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Shelly has put her teddy bears in 3 groups of 10 . When she has done this, she has 4 bears left over. How many bears does she have altogether? How do you know? | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in |
| Fact Practice <br> Number Hunt <br> 1. Divide students into pairs <br> 2. Each pair needs a Number Hunt sheet (attached to this lesson plans ) <br> 3. Player rolls two, 12-sided dice. <br> 4. Player adds or subtracts the two numbers. <br> 5. If the number is not yet covered, then player may cover the number. <br> 6. Next player repeats steps 1-3. <br> 7. Winner is determined by who has the most numbers covered. | 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. |
| Math Vocabulary <br> Word for Today: tens <br> Description: Tens is the word we use to describe the place that a numeral can be that represents counting by 10s. While ones is in the place furthest to the right, the 10 s place is next to it on the left. The number 10 means 1 ten and no ones. When we get to 10 it is like | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. |

we bundled the items together and instead of having to count again and again, we can simply look at the bundle and know that it is 10. Just like a dime is 10 pennies collected into one coin, a 10 s bundle is 10 items collected into one item-usually with a rubber band or some other way to separate the group of ten from everything else. Ask children to share different ways that you could bundle 10 together (baggie, paper clip, rubber band, envelope, etc.)

Vocabulary Notebook Sample:

| New Word | My Description <br> Tens |
| :--- | :--- |
| The numeral that is between the ones and <br> the hundreds place |  |
| My grandmother is 63. The 6 is in the tens <br> place. | Drawing |


|  | Activity |
| :---: | :---: |
|  | First to 100 |
| Materials: | Deck of Cards (remove face cards and jokers) |
|  | White Board |
|  | Vis-à-vis pens |

Players: 2-4
Purpose of the game: Practice adding and subtracting 2 digit numbers mentally. Directions:

1. The object of this game is to reach 100 exactly.
2. Shuffle the cards.
3. Player one draws 2 cards and arranges them to make a 2 digit number.
4. Player two does the same.
5. Player one draws 2 more cards, arranges them to make a 2 digit number and add it to or subtract it from the first number.
6. Player two does the same.
7. Play continues in this fashion. If a player goes over 100 , then the 2 -digit number will need to be subtracted.

Note: If player draws a 9 and a 2, if they choose to make the number 92 , there is no way to make a 2-digit number that will not take the total over 100. Players may want to consider selecting the number 29.

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!)

- 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.

Number Hunt

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

Number Hunt

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |


| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | First to 100 and Tens |
| Focus: | Addition |

## Materials:

| White boards | Vocabulary Notebooks <br> Crayolas | Decks of cards |
| :--- | :--- | :--- |$\quad$ Socks


| Opening |
| :--- |
| State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> What is the value of the 6 in the number 76 ? How do you know? | *Activity $\rightarrow$ Teachable Moment(s) throughout |
| Fact Practice <br> Draw! <br> 1. Divide students into pairs and give each pair a deck of cards <br> 2. Remove the face cards and jokers from the deck of cards. <br> 3. Shuffle the deck. <br> 4. Decide who will go first. <br> 5. First player draws two cards. <br> 6. Student adds or subtracts the cards. <br> 7. Student writes his/her problem on the white board, writing a complete number sentence. <br> 8. Students take turns drawing cards and creating problems. | During the lesson check in 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. |
| Math Vocabulary <br> Word for Today: tens <br> Description: Review with the children your discussion about 10s yesterday. Talk about how we write numbers when we count by 10s. Ask children to count by 10s to 100. As they say | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. |

each number, write the number on the board. Children should show ten fingers and then close hands into fists and then show ten fingers again when they say the next number. After counting to 100 by tens, show children that the math problem looks like $10+10=20,10+10$ $+10=30$ and so on.
Have students review the Vocabulary Notebook entry from yesterday with a partner and make any additions or changes they need to make.
Vocabulary Notebook Sample:

| New Word | My Description <br> tens <br> The place in a three digit number that is in <br> the middle and stands fo 20, 30, 40, 50, and <br> so on |
| :--- | :--- |
| Personal Connection <br> Place the numeral 9 in the tens place to <br> show that I have 90 objects. |  |

## Activity <br> First to 100

Review this game from yesterday. Ask the children how to play the game. When you are certain that they understand the game, have each child select a partner and begin playing. Materials can be reused from yesterday.

Materials: Deck of Cards (remove face cards and jokers) White Board
Vis-à-vis pens
Players: 2-4
Purpose of the game: Practice adding and subtracting 2 digit numbers mentally.

## Directions:

1. The object of this game is to reach 100 exactly.
2. Shuffle the cards.
3. Player one draws 2 cards and arranges them to make a 2 digit number.
4. Player two does the same.
5. Player one draws 2 more cards, arranges them to make a 2 digit number and add it to or subtract it from the first number.
6. Player two does the same.
7. Play continues in this fashion. If a player goes over 100 , then the 2 -digit number will need to be subtracted.

Note: If player draws a 9 and a 2, if they choose to make the number 92 , there is no way to make a 2-digit number that will not take the total over 100. Players may want to consider selecting the number 29.

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!)

- 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.

| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Roman Numeral and Make 20 |
| Focus: | Addition |


| Materials: |  |
| :--- | :--- |
| White boards | Vocabulary Notebooks |
| Crayolas | cards (remove face card and jokers) |
| Socks |  |


| Opening |
| :--- |
| $\quad$ State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day Is 46 greater than, less than or equal to 93 ? Write $>,<$, or $=$ to show your answer. <br> 46 93 | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> During the lesson check in with students repeatedly. <br> Check in about what is |
| Fact Practice: Draw! <br> 1. Divide students into pairs and give each pair a deck of cards <br> 2. Remove the face cards and jokers from the deck of cards. <br> 3. Shuffle the deck. <br> 4. Decide who will go first. <br> 5. First player draws two cards. <br> 6. Student adds or subtracts the cards. <br> 7. Student writes his/her problem on the white board, writing a complete number sentence. <br> 8. Students take turns drawing cards and creating problems. | 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. |
| Math Vocabulary <br> Word for Today: numeral <br> Description: Review the discussion about numbers and numeral from yesterday. Show children Roman Numerals (the way that numbers were represented during the Roman Era 2,000 years ago. | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. |

$1=\mathrm{I}$
$2=\mathrm{II}$
$3=\mathrm{III}$
$4=\mathrm{IV}$ (one less than 5 -represented by the V
$5=\mathrm{V}$
$6=\mathrm{VI}(5+1)$
$7=\mathrm{VII}$
$8=\mathrm{VIII}$
$9=\mathrm{IX}$ (one less than 10 which is represented by the X)
$10=\mathrm{X}$
$50=\mathrm{L}$
$100=\mathrm{C}$
Have students complete his/her Vocabulary Notebook.

Vocabulary Notebook Sample:

| New Word | My Description <br> Soman Numeral |
| :--- | :--- |
| Sersonal Connection that represent a number, but they are <br> different than our numbers |  |
| I can use Roman Numerals to write 2012: |  |
| MMXII. |  |$\quad$ Drawing

## Activity: Make 20!

Review the game from yesterday. Have children tell you how to play. When you have reviewed, let children play the game again.
Materials: Deck of Cards (remove face cards and jokers)
Players: 2-4
Purpose of the game: Practice addition facts to automaticity.
Directions:

1. Shuffle the cards.
2. Deal 5 cards to each player and stack the remaining cards face down in a pile in the center of the table.
3. Player 1 tries to use some or all of the five cards to create a sum of 20 .
4. If the player creates a problem with the sum of 20 , the player says, "Made 20!" and places the used cards in a separate pile.
5. If the player is unable to create a problem, he/she draws a card and the turn ends.
6. Player 2 takes a turn in the same way.
7. Play continues until all cards are used or until neither player can create a problem.
8. Player with the most cards wins.

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!)

- 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.

| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Make 20 |
| Focus: | Addition |

## Materials:

White boards
Crayolas
Socks

Vocabulary Notebooks
cards without tens, face cards and jokers

| Opening |
| :--- |
| State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |

Content (the "Meat")
Problem of the Day
Felix has 11 red cars. He finds some red cars in a box in his closet. He now has 19 red cars. How many red cars did he find in the closet? Explain your answer.

## Fact Practice

Bump It Up! Add A Zero

1. Divide students into pairs
2. Give each pair a white board and a deck of cards (without face cards, jokers, or 10s)
3. The object of this fact practice is to sum numbers until you reach 1,000 .
4. Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.
5. It is not the other person's turn to do the same
6. When play returns to the first player, the process is repeated, although this time, the totals are added together.
7. First person to 1,000 wins.
8. Example: Player draws a 7 and a 4. Total is 11 . Multiply by 10 (add the zero) equals 110. Next turn, player draws a 3 and a 2 which totals 5 . Multiply by 10 and I now add 50 to 110 for a total of 160 .

## Math Vocabulary

## Word for Today: numeral

Description: When we refer to numbers and numerals in math, we often think of them as the same. However, they are not. A number is an abstract concept; a numeral is a way to express a number, usually in writing. For example, the number 5 can be thought of as the

## *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.
It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word.
concept of "fiveness" which all sets of five objects have in common; it can be expressed using numerals such as $5, \mathrm{~V},|||| |$, five, and so on. In other words a numeral is a way to represent the concept of number. It is the written symbol and in different languages and in different times, that written symbol is different, but the concept that the numeral represents, the number, remains the same in any language.
Have students complete the Vocabulary Notebook.
Vocabulary Notebook Sample:

| New Word Numeral | My Description <br> A symbol that represents a count or specific <br> number of items |
| :--- | :--- |
| Personal Connection | Drawing |
| $3,4,5,6$, and 7 are numerals. |  |

## Activity

## Make 20

Demonstrate: Show students how to play the game. Ask for volunteers to come up and talk through the game as they learn how to play. Have each of the volunteers teach another student how to play the game. Have the people who have actually played the game partner with students who have not played before.

Materials: Deck of Cards (remove face cards and jokers)
Players: 2-4
Purpose of the game: Practice addition facts to automaticity.

## Directions:

1. Shuffle the cards.
2. Deal 5 cards to each player and stack the remaining cards face down in a pile in the center of the table.
3. Player 1 tries to use some or all of the five cards to create a sum of 20 .
4. If the player creates a problem with the sum of 20, the player says, "Made 20!" and places the used cards in a separate pile.
5. If the player is unable to create a problem, he/she draws a card and the turn ends.
6. Player 2 takes a turn in the same way.
7. Play continues until all cards are used or until neither player can create a problem.
8. Player with the most cards wins.

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!)

- 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.

| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Make a Hundred |
| Focus: | Addition |

## Materials:

| White boards | Vocabulary Notebooks |
| :--- | :--- |
| Crayolas | Double 9 Dominoes (attached) |
| Socks | Make A Hundred Game Board (attached) |


| Opening |
| :--- |
| $\quad$ State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> Write a story for this number sentence: $17+28=45$ | *Activity $\rightarrow$ Teachable Moment(s) throughout During the lesson check in with |
| Fact Practice <br> Spots and Dots <br> There is a master of Double 9 Dominos attached to this lesson plan. You will need 1 full set for each pair of students in your class. It is recommended that you duplicate on card stock and if possible, laminate for use again in the future. <br> Players sit across from each other. <br> Dominoes are between them, face (or spots) down. <br> Each student draws a domino and writes the addition problem on their white board, adding the numbers represented by the spots Example: Domino drawn is <br> Addition: $2+3=5$ | 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. |
| Math Vocabulary <br> Word for Today: hundred <br> Description: The word hundred is a way of describing 100 counted items. Hundred is thought to be a way to describe a perfect spelling test, "I got 100\%", meaning that all answers were correct. In our number system with place value, the 100 s place is the | It is important to review academic math vocabulary often throughout the day. Complete the Vocabulary notebook for each word. |

third from the right. The places are valued at
Hundreds Tens Ones, so a number could be $300+40+2$ or a total of 342 . We say the word hundred after a number to help capture the meaning of what we are saying.
300 is many more than 30 which is a lot more than 3 . Hundred allows us to group items together without counting one by one.
Have students share the Vocabulary Notebooks in pairs, discussing the word, making any additions or changes.

Vocabulary Notebook Sample:

| New Word | My Description <br> Hundred |
| :--- | :--- |
| The number of pennies in a dollar, one <br> more than 99 and one less than 101 |  |
| Personal Connection <br> I can count to 100 by ones. | Drawing |

## Activity <br> Make A Hundred

Materials: Make a Hundred game board, vis-à-vis or crayola Directions:

1. Using a vis-à-vis pen or a crayola, player draws a line around the boxes that will total 100.
2. If playing in competition, a different color marker is needed for each player. Players take turns. Winner is the player with the most spaces circled.

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!)

- 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.

Double 9 Dominoes


| $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| :---: | :---: | :---: | :---: | :---: |
| $\bullet$ | $\bullet$ |  |  |  |
| $\bullet \bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet \bullet$ |
| $\bullet \bullet$ | $\bullet$ | $\bullet \bullet$ | $\bullet$ | $\bullet$ |
| $\bullet \bullet$ | $\bullet$ | $\bullet$ |  |  |




| Do not use | $\bullet \bullet \bullet$ |  | $\bullet$ | - - |
| :---: | :---: | :---: | :---: | :---: |
| Do not use | $0 \cdot 0$ | $\stackrel{-0}{-0}$ | $\begin{aligned} & \bullet \bullet \\ & \bullet \bullet \bullet \\ & \bullet \bullet \theta \end{aligned}$ | $\begin{aligned} & 00 \\ & 000 \end{aligned}$ |


|  | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| $\bullet \bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet \bullet$ | $\bullet \bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |  |


| $\bullet \bullet$ | $\bullet \bullet \bullet$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $\bullet \bullet \bullet$ | $\bullet \bullet$ |  | $\bullet$ | $\bullet \bullet$ |
| $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ |  |  |  |
| $\bullet \bullet \bullet$ | $\bullet \bullet$ | $\bullet \bullet \bullet$ | $\bullet \bullet$ | $\bullet \bullet \bullet$ |
| $\bullet \bullet \bullet$ | $\bullet \bullet$ | $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ |
| $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ | $\bullet \bullet \bullet$ |



Make A Hundred Game Board

| 25 | 25 | 5 | 10 | 50 | 10 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | 5 | 10 | 50 | 50 | 25 | 25 |
| 25 | 50 | 5 | 5 | 10 | 50 | 10 |
| 5 | 10 | 25 | 50 | 25 | 10 | 5 |
| 50 | 10 | 5 | 10 | 25 | 5 | 10 |
| 10 | 5 | 25 | 50 | 25 | 10 | 5 |
| 25 | 25 | 10 | 10 | 10 | 5 | 50 |
| 10 | 10 | 5 | 25 | 25 | 5 | 10 |
| 50 | 5 | 25 | 10 | 5 | 50 | 10 |
| 50 | 25 | 10 | 10 | 5 | 5 | 10 |
| 25 | 10 | 10 | 10 | 5 | 5 | 10 |
| 5 | 10 | 5 | 5 | 25 | 25 | 50 |
| 10 | 5 | 25 | 50 | 10 | 10 | 25 |
| 5 | 50 | 10 | 5 | 25 | 25 | 10 |
| 10 | 5 | 25 | 25 | 50 | 10 | 5 |
| 10 | 25 | 50 | 10 | 5 | 5 | 25 |
| 5 | 25 | 25 | 10 | 50 | 5 | 10 |


| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Place Value Ordering Numbers |
| Focus: | Place Value |

## Materials:

White boards
Decks of cards
Crayolas
Socks
Vocabulary Notebooks
largest, smallest, in the middle cards (see cards attached to this lesson plan)

| Opening |
| :--- |
| $\quad$ State the objective |
| Today we are going to practice using our math vocabulary and math skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") |  |
| :---: | :---: |
| Problem of the Day <br> You will see three numbers below. Arrange them from the least to the greatest. When you have done that, tell why you know that this order is correct. $\text { 17, 26, } 23$ | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> During the lesson check in with students repeatedly. <br> Check in about what is |
| Fact Practice <br> Addition War <br> - Divide students into pairs. Give each pair a deck of cards without face cards and jokers. <br> - Shuffle the deck and divide the cards evenly between the two players <br> - On go, the players turn over the cards at the same time <br> - Students add the 2 numbers that have been turned up <br> - First person to give the answer either wins the cards because the answer is correct, or has to turn over 2 cards because he/she gave the wrong answer <br> - At the end of round, students may reshuffle the pile of cards that they have <br> - Play can continue until one player has all cards or time has called | 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. |
| Math Vocabulary <br> Word for Today: expanded form <br> Description: Expanded form is another way of saying expanded notation. Expanded notation is a way to write a number that represents each numeric value of the place the numeral is in. Example: 324 in expanded notation is $300+20+4$. In expanded notation, | It is important to review academic math vocabulary often throughout the day Complete the Vocabulary notebook for each word. |

the numerals to the right of the number are represented by 0 which holds the place of the other numbers. You have already placed this in your notebook. Review your entry with a partner. Review all of the words that are in your math notebook today.

## Vocabulary Notebook Sample:

| New Word | My Description <br> Expanded form |
| :--- | :--- |
| Wersiting a numeral so you can see what it is <br> made up of $300+20+1$ |  |
| I do not like to write numbers in expanded <br> form. I like standard form better. | Drawing |

## Activity

Demonstrate: We are going to practice determining the place value of each number. If I write the number 472, which numeral is in the ones place? (2) Which numeral is in the hundred's place? (4) Which numeral is in the ten's place? (7). For this activity each of you will have one card between 1 and 9.

1. When I say "Go", find 2 other people who do not have the same number as you have. For example is you have a " 3 ", then you will want to find two people with different numbers from each other and from you. Once you have found these two people, you will be a team for the first play.
2. Once you have found your partners I will call out a place value (hundreds, tens, ones, followed by a second call such as largest, smallest, in the middle. Example: You have 3, you find a partner with a 9 and a partner with a 1. When I call hundreds followed by the word smallest, the person holding the 1 would move to hundreds place. When I call tens and the word largest, then the 9 would could move to the tens place. Finally, the ones place would be filled with the number in middle. You and your two partners would form the number 193.
3. Once the number has been formed, you and your team will say your number aloud for the group.
4. Cards for largest, smallest, in the middle below. Move from either hundreds to ones, or ones to hundreds each time.

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!)

- 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.

| largest | smallest | in the middle |
| :---: | :---: | :---: |
| largest | smallest | in the middle |
| largest | smallest | in the middle |
| largest | smallest | in the middle |
| largest | smallest | in the middle |
| largest | smallest | in the middle |
|  |  |  |


| Component: | Math |
| :--- | :--- |
| Grade Level: | $2^{\text {nd }}$ Grade |
| Lesson Title: | Accordion |
| Focus: | Expanded Notation |

## Materials:

| White boards | Vocabulary Notebooks |  |
| :--- | :--- | :--- |
| Crayolas | Playing cards | Socks |


| Opening |
| :--- |
| State the objective |
| Today we are going to practice using our math vocabulary and skills. |
| Gain prior knowledge by asking students the following questions |
| What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? |
| How can you tell that you are on the right track for solving the problem? |
| What are the basic operations that you need to utilize during math? |


| Content (the "Meat") <br> Look at the pattern. Copy it and then draw the next 4 shapes. How do you know what to <br> draw? | *Activity $\rightarrow$ Teachable <br> Moment(s) throughout <br> Muring the lesson check in |
| :--- | :--- | :--- |
| with students repeatedly. |  |

Description: The standard form of a number is what happens when you combine expanded form or expanded notation. For example, in expanded notation 314 would be written $300+10$ +4 . In standard form is would be written 314.
Students should complete the Vocabulary Notebook.
Vocabulary Notebook Sample:

| New Word <br> Standard form | My Description <br> Writing a number in the regular way: 643 |
| :--- | :--- |
| Personal Connection <br> I like to write numbers in the standard form. | Drawing |

Activity
Accordion
Demonstrate: Accordions are musical instruments that stretch out and then get pushed together. In this game, numbers that are written in expanded notation will be pushed together into standard form. Numbers that are written in standard form will be stretched out into expanded form.
Using the cards provided at the end of this lesson plan, demonstrate for students exactly how the game will be played. Have several students come up and model the game for the rest of the students.
Have children play the game with a partner. If a student can read or write the number correctly, then he/she keeps the card. Student with the most cards wins.
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 |
|  |  |
| • |  |

## Debrief

## Three Whats

Ask the following three what questions:
What was your key learning for the day?
What opportunities might you have to do this same thing in the "real world"?
What advice would you give to a "new" student getting ready to do this activity?

## 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.

Consult 4 Kids Lesson Plans

Standard and Expanded Notation Cards

| 371 | 684 | 293 | 118 |
| :---: | :---: | :---: | :---: |
| 429 | 346 | 521 | 732 |
| 213 | 354 | 819 | 207 |
| $200+30+6$ | $500+40+2$ | $100+20+9$ | $300+70+9$ |
| $400+20+8$ | $600+50+1$ | $200+00+6$ | $700+60+7$ |
| $800+90+8$ | $900+20+4$ | $600+60+8$ | $500+60+5$ |

