

Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Regrouping
Focus:	Addition

# Materials:White boardsDecks of cardsDominoes (Double 9)CrayolasVocabulary NotebooksSocksActivity at the end of this lesson plan

#### Opening

#### State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about regrouping? When would you use this process? For what reason do you regroup? Is this a process you can use in any operation?

Content (the "Meat")		
Problem of the Day	*Activity <del>→</del> Teachable Moment(s) <i>throughout</i>	
The train can carry 425 people at one time. 637 people bought a ticket. How many people will have to wait for the second train? How do you know?	During the lesson check in with students repeatedly.	
<ul> <li>Fact Practice</li> <li>Addition War</li> <li>Divide students into pairs. Give each pair a deck of cards without face cards and jokers.</li> <li>Shuffle the deck and divide the cards evenly between the two players</li> <li>On go, the players turn over the cards at the same time</li> <li>Students add the 2 numbers that have been turned up</li> <li>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</li> <li>At the end of round, students may reshuffle the pile of cards that they have</li> <li>Play can continue until one player has all cards or time has called</li> </ul>	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 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	It is important to review academic math vocabulary	



often throughout the day. **Description**: The term addend refers to the numbers you add together in an addition problem. When you are adding any column (ones, tens, hundred, thousands, and so on), Complete the Vocabulary and the tal in that column is ten or more, you must regroup, taking the number in the tens notebook for each word. column to the column to the left and writing the numeral in the ones place underneath the When possible, have column you are adding. students experience the word Review the entry in your Vocabulary Notebook for the term "addend". Share with a friend (Ex. 4 students creating a what the term means. Give an example. right angle, multiple students Vocabulary Notebook Sample: acting out an equation). New Word My Description Vocabulary Notebooks can be made from 1/2 of a composition book. addend the numbers you add together in an addition problem Personal Connection Drawing In the addition problem, 6 + 9 = 15, the 2 + 4 = 16 digits 6 and 9 are the addends Activity Focus on having young people "compete" in pairs or Regrouping small groups. Once a game is mastered you can utilize it Addition in the "When Homework Is When you are adding, sometimes you will need to regroup. This means that the answer or Complete" center. sum of two numbers is more than ten. For example if you are adding 45 and 36, you begin with the ones column, adding the 5 and the 6 for a total of eleven. In the number 11, you have one unit or one, which goes underneath the ones column, and you have one ten which you carry over to the tens column. So the second addition problem would be 1 + 4 + 3 for a total of 81. This means that you write the tens above the tens column and then include it in the addition. You can also have a problem that has a tens column that adds up to ten or more in which case you move the tens to the hundreds column, continuing to add. Complete several problems on the board with the students. Be sure to use metacognition to share with the students what you are thinking as you complete the problem. When you are confident that the children know what to do, distribute the game. Regrouping Directions: 1. Divide students into pairs. 2. Give each pair a deck of cards, remove the face cards, tens, and jokers. 3. Shuffle the cards and place them face down in between the students. 4. Player one draws six cards and arranges them into a 3 digit + 3 digit problem. For example: 647 +396 5. He/she then finds the sum, using the white boards. 6. He/she shares his/her answer with Player 2.



<ol> <li>Player 2 continues in the same way.</li> <li>Play is complete when all cards have been used.</li> </ol>	
$\bullet \bullet \bullet \bullet \bullet \bullet$	
9. If the student drew this domino, the problem would be 6 x 3 for an answer of 18.	
10. If Player gives the correct answer (within 15 seconds), he/she keeps the domino and Player 2 takes his/her turn. If Player cannot provide the answer, then the domino is	
returned to the pile.	

	Closing	
	Review	
Say:		
Please recap what we did today.		
<ul> <li>Did we achieve our objectives?</li> </ul>		
	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" player getting ready to play this game so he/she could get all the blocks are completed.		

- 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.



Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Regrouping 2
Focus:	Addition

Materials:			
White boards	Decks of cards	Dominoes (Double 9)	
Crayolas	Vocabulary Notebooks		
Socks (for erasers)	Activity at the end of this lesson plan		

#### Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operation of multiplication.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about regrouping? When would you use this process? For what reason do you regroup? Is this a process you can use in any operation? Create a problem that will require you to regroup. Share it with a peer.

#### Content (the "Meat") Problem of the Dav \*Activity $\rightarrow$ Teachable Last year the Little League Baseball Team raised \$3,450 for rebuilding the team dugout. Moment(s) *throughout* This year they raised \$4,275 for rebuilding the opposing team's dugout. If the price has During the lesson check in remained the same, how much do they have left for trophies? with students repeatedly. Fact Practice Check in about what is Foreheader happening and what they are thinking. 1. Divide students into trios. Give each trio a deck of cards without face cards and jokers. Take advantage of any 2. Shuffle the deck and give all of the cards to the referee who will be "judging" the contest teachable moments. 3. On go, players are each handed a card by the referee and WITHOUT looking, put the card Stop the class and focus on a face out on his/her forehead student's key learning or 4. The referee adds the two numbers together and states the answer understanding. Ask open-5. Each player looks at the other person's exposed number and names his/her own number ended auestions to 6. Person who wins (accuracy and time), collects both cards determine what the rest of 7. Play continues until all cards are gone. the group is thinking. 8. Players can repeat play (if there is another time) with each other so each has an When possible, engage opportunity to be both a player and referee 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

students experience the word

right angle, multiple students acting out an equation).

notebook for each word.

(Ex. 4 students creating a

When possible, have

#### Math Vocabulary

#### Word for today: regroup

**Description:** The term, regroup refers to a process that you use when you are working an addition problem and the sum in any column is ten or higher. In this process the number in the ones place remains the ones place while the number in the tens column in the answer will be moved to the next column to the right.

Review the entry for the word "regroup" in your Vocabulary Notebook. Talk with a friend about the term. Give an example of multiples.

#### Vocabulary Notebook Sample:

	I Vocabulary Notebooks can	
New Word regroup	My Description when the total is ten or higher, you regroup to finish addition	be made from ½ of a composition book.
Personal Connection	Drawing	
27 + 18 requires that you regroup to get the correct sum of 45.	48 <u>+9</u> 57	
Acti	Focus on having young	
<b>Addition</b> When you are adding, sometimes you will nee sum of two numbers is more than ten. For example, and the source of the s	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	

sum of two numbers is more than ten. For example if you are adding 45 and 36, you begin with the ones column, adding the 5 and the 6 for a total of eleven. In the number 11, you have one unit or one, which goes underneath the ones column, and you have one ten which you carry over to the tens column. So the second addition problem would be 1 + 4 + 3 for a total of 81. This means that you write the tens above the tens column and then include it in the addition. You can also have a problem that has a tens column that adds up to ten or more in which case you move the tens to the hundreds column, continuing to add. Complete several problems on the board with the students. Be sure to use metacognition to share with the students what you are thinking as you complete the problem. When you are confident that the children know what to do, distribute the game.

#### Regrouping

#### Directions:

- 1. Divide students into pairs.
- 2. Give each pair a deck of cards, remove the face cards, tens, and jokers.
- 3. Shuffle the cards and place them face down in between the students.
- 4. Player one draws six cards and arranges them into a 3 digit + 3 digit problem. For example:

64 <i>1</i>
+396

- He/she then finds the sum, using the white boards. 5.
- 6. He/she shares his/her answer with Player 2.
- 7. Player 2 continues in the same way.
- 8. Play is complete when all cards have been used.



- 9. If the student drew this domino, the problem would be 6 x 3 for an answer of 18.
- 10. If Player gives the correct answer (within 15 seconds), he/she keeps the domino and Player 2 takes his/her turn. If Player cannot provide the answer, then the domino is returned to the pile.

	Closing
	Review
Say:	
<ul><li>Please recap what we did today.</li><li>Did we achieve our objectives?</li></ul>	
	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.

- 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.



Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Connect the Dots #1
Focus:	Subtraction

Materials:		
White boards	Vocabulary Notebooks	Activity at end of this lesson plan
Crayolas	Socks (erasers for white board)	
Dice	Cards(remove face cards, use the joker as a zero)	

Opening

State the objective

Today we are going to practice using our math vocabulary and practice multiplication.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about subtraction? When you have a problem like this: 62 - 18 =, what do you need to do to be able to subtract in the ones column? Give several examples.

Content (the "Meat")			
	Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>	
If the sum of two numbers is 138, and one number is 32 more than the other, what are the two numbers?		During the lesson check in with students repeatedly.	
? + ? = 138		Check in about what is happening and what they are	
Fact Practice		thinking.	
Spoke	<b>s on a Wheel</b> Divide students into pairs	Take advantage of any teachable moments.	
2.	On a white board, student draws a small circle with 9 spokes coming out of it (should look like a bicycle tire)	Stop the class and focus on a student's key learning or	
3.	Have students choose to put a 6, 7 or 8 in the center circle	understanding. Ask open-	
4.	Student rolls two dice and adds the pips (dots)	determine what the rest of	
5.	Taking this total, student writes a math problem on one of the spokes (eg. 7 is in	the group is thinking.	
	the circle and students rolls a 3 and 5 which totals 8. The spoke equation would look like 7 + 8 = 15	When possible, engage students in a "teach to learn"	
6.	Process continues until all spokes have an equation	opportunity and have the student become the teacher.	





It is important to review academic math vocabulary

often throughout the day

Complete the Vocabulary

students experience the word

right angle, multiple students

notebook for each word.

(Ex. 4 students creating a

When possible, have

#### Math Vocabulary

#### Word for today: subtraction

**Description:** Subtraction is a term that refers to beginning with a certain amount and then taking a portion of that away and ending up with a difference. When you want to subtract, and the number that is in the subtrahend is larger than the number in the minuend in that place, you must regroup so you can complete the subtraction.

Review your Vocabulary Notebook entry for the term "subtraction". Talk with a partner about the term. Share with them when you would use subtraction with regrouping.

Vocabulary Notebook Sample:		acting out an equation)
New Word subtraction	My Description minus or take away	Vocabulary Notebooks can be made from ½ of a composition book
Personal Connection	Drawing	
Subtraction reduces a number by another number.	52 <u>-37</u> 15	
Ac Subtraction When you subtract you first subtract the digit Once you have subtracting the ones, you wil the hundreds. For example:	<b>tivity</b> raction is in the right hand column or ones place. I then subtract the tens, and then subtract in	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
i or example.	678 - <u>325</u>	
You would begin by subtracting 5 from 8, ge 2 from 7, so now you are at 53. Finally you v difference of 353. Work several problems on the board with stu When you are pleased with the results, then	ting a difference of 3. You would then subtract vill subtract the 3 from the 6, making the dents. Be sure to talk through each program. give the students a game to play.	
<ul> <li>Connect the Dots #1 <u>Directions:</u> <ol> <li>Give each pair of students a Connect the game board, laminate it or place</li> <li>Working together, students complete problem to the correct answer.</li> <li>Students will be able to see a pattern</li> <li>When pair is finished have them share</li> </ol></li></ul>	et the Dots game Board. If you want to keep it in a sheet protector. If the subtracting problem and connect the In emerge. In emerge.	



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!)
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.







Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Connect the Dots #2
Focus:	Subtraction

#### Materials:

White boardsVocabulary NotebooksCrayolasdiceSocks (for erasers)

#### Opening

#### State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What do you know about subtraction? When you have a problem like this: 62 - 18 =, what do you need to do to be able to subtract in the ones column? Give several examples.

Content (the "Meat")		
Problem of the Day Create an in and out table using the rule "multiply by 3". Explain how you decided what	*Activity → Teachable Moment(s) <i>throughout</i>	
numbers to use.	During the lesson check in with students repeatedly.	
In     Out       Out     Fact Practice	Check in about what is happening and what they are thinking.	
<ul><li>Addition Ladder</li><li>1. Give each student a white board (include marker or crayola)</li></ul>	Take advantage of any teachable moments.	
2. Student should draw a ladder like the one below	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.	
3. Have student roll 2 dice, total the pips and then add that number to each of the		



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right angle, multiple students

Vocabulary Notebooks can

notebook for each word.

(Ex. 4 students creating a

acting out an equation).

When possible, have

numbers in the ladder, writing the sum to the right of the number

#### Math Vocabulary

#### Word for Today: subtraction

**Description:** Subtraction is a term that refers to beginning with a certain amount and then taking a portion of that away and ending up with a difference. When you want to subtract, and the number that is in the subtrahend is larger than the number in the minuend in that place, you must regroup so you can complete the subtraction.

Review your Vocabulary Notebook entry for the term "subtraction". Talk with a partner about the term. Share with them when you would use subtraction with regrouping. Write three problems on your white board. Have your partner solve them.

#### Vocabulary Notebook Sample:

New Word	My Description	be made from ½ of a composition book.
subtraction	minus or take away	
Personal Connection	Drawing	
Subtraction reduces a number by another number.	52 <u>-37</u> 15	
Ac Subt	tivity raction	Focus on having young people "compete" in pairs or
<b>Subtraction</b> When you subtract you first subtract the digits in the right hand column or ones place. Once you have subtracting the ones, you will then subtract the tens, and then subtract in the hundreds. For example:		small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.
·	678 - <u>325</u>	
You would begin by subtracting 5 from 8, get 2 from 7, so now you are at 53. Finally you v difference of 353. Work several problems on the board with stu When you are pleased with the results, then	ting a difference of 3. You would then subtract vill subtract the 3 from the 6, making the dents. Be sure to talk through each program. give the students a game to play.	
Connect the Dots #2 <u>Directions:</u> 1. Give each pair of students a Connect the game board, laminate it or place 2. Working together, students complete problem to the correct answer. 3. Students will be able to see a pattern	et the Dots game Board. If you want to keep it in a sheet protector. If the subtracting problem and connect the	

4. When pair is finished have them share with another pair.

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.	

- 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.





## 3<sup>rd</sup> Grade Connect the Dots #2





Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Domino Subtraction
Focus:	Subtraction

Materials:		
White boards	Vocabulary Notebooks	Dominoes
Crayolas	Deck of Cards for each pair	
Activity at the end of this less	on plan Socks (use as e	rasers)

#### Opening

#### State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? When do you subtract? How are addition and subtraction linked? What do you call the different numerals in a subtraction problem?

Content (the "Meat")			
	Problem of	the Day	*Activity → Teachable Moment(s) <i>throughout</i>
Look at the bus schedule b	below. Does it take lor	nger to get to LA or San Francisco? _	During the lesson check in with students repeatedly.
To Depart	ts Arrives		Check in about what is
Los Angeles 8:00 a.	.m. 12:30 p.m.		happening and what they are
San Francisco 9:00 a.	.m. 3:00 p.m.		thinking.
Fresno 8:30 a.	.m. 11:30 a.m.		Take advantage of any
	Fact Pra	ictice	teachable moments.
<ul> <li>Target <ol> <li>Divide students into trios</li> <li>Each trio needs a deck of cards without face cards and jokers</li> <li>Each trio needs a deck of cards without face cards and jokers</li> <li>Place the cards face up in a TicTac Toe Grid</li> <li>Turn up a 10<sup>th</sup> card which will be to the side and becomes the target number (aces count as 1)</li> <li>Each player makes an equation with some or all of the numbers in the grid to equal the target number. Students may add or subtract.</li> <li>Each card may be used only one time in the equation</li> </ol> Stop the class and focus or student's key learning or understanding. Ask open ended questions to determine what the rest or the group is thinking. When possible, engage students in a "teach to lear opportunity and have the student become the teach" Each card may be used only one time in the equation</li></ul>		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.	



example if the target card is 10, then I	could say 6 + 4 = 10, and pick up the 6 and the	
4. 8 After one player finishes his/her turn, then the cards taken are replaced by cards from		
the remaining deck		
9. Player with the most cards at the end o	f the game win	
Math Vo	cabulary	It is important to review
Word for today: regrouping	-	academic math vocabulary
<b>Description:</b> Regrouping is a mathematical ter	m that describes what you do when you have	often throughout the day.
a total that is more ones, tens, hundreds, etc. the	nan nine or if you have a subtrahend that has a	notebook for each word.
allows you to translate tens into ones (like dime	s into pennies), and hundreds into tens.	When possible, have
Review your Vocabulary Notebook for the term	regrouping. Discuss this process with your	students experience the word
friend.		(Ex. 4 students creating a
Vocabulary Notebook Sample:	My Description	acting out an equation).
		Vocabulary Notebooks can
regroup	Getting digits in a math problem to be in the	be made from ½ of a
	place value column correctly	composition book.
Personal Connection	Drawing	
When you subtract 81- 37, you must	81	
regroup making the units 11 and the tens /	$\frac{-37}{44}$	
Acti	vity	Focus on having young
Subtraction		people "compete" in pairs or
When you are subtracting, you begin with the o	nes or units column first. If the bottom digit is	small groups. Once a game
the tens, and instead of keeping the ten items a	is a group you separate them into ones. For	in the "When Homework Is
example, if you needed 8 items and you only ha	ad a package of 10, you would need to open up	Complete" center.
the package of ten so you could take out 8 of the	e single units. As another example, if you	
separated, you would have the ten you separate	ed + the 4 you already had, so you would now	
have a total of 10 units plus 4 units from which	you would subtract the 8 you needed, so you	
would have 6 units left over.		
Work several 2 digit subtract subtraction problems that require the student to regroup on the		
board with the group. Use metacognition to sha	are with the student what you are thinking as	
you solve the problem.		
Domino Subtraction		
Directions:		
<ol> <li>2. Give each pair a set of Double 9 domin</li> </ol>	oes and white boards.	
3. Player 1 draws 2 dominoes and create	s a subtraction problem:	





	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 sa	ame thing in the "real world"?
What advice would you give to a "new" student	getting ready to do this activity.

- 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.



Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Domino Subtraction 2
Focus:	Subtraction

Materials:		
White boards	Vocabulary Notebooks	Materials at end of lesson plan
Crayolas	12-sided dice for each pair	Deck of Card for every 2 students
Number Hunt Work Sheet	Socks (for erasers)	Dominoes

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? When do you subtract? How are addition and subtraction linked? What do you call the different numerals in a subtraction problem?

Content (the "Meat")					
Problem of the Day	*Activity → Teachable Moment(s) <i>throughout</i>				
If Joni has 1 \$10 bill, 1 \$5 bill, 6 quarters, and 14 dimes, can he afford to buy a game that costs \$16.95? Tell how you know.	During the lesson check in with students repeatedly.				
Fact Practice Number Hunt	Check in about what is happening and what they are thinking.				
<ol> <li>Divide students into pairs</li> <li>Each pair needs a Number Hunt sheet (attached to this lesson plans )</li> </ol>	Take advantage of any teachable moments.				
<ol> <li>Player rolls two, 12-sided dice.</li> <li>Player adds or subtracts the two numbers.</li> <li>If the number is not yet covered, then player may cover the number.</li> <li>Next player repeats steps 1-3.</li> <li>Winner is determined by who has the most numbers covered.</li> </ol>	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.				



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students experience the word

right angle, multiple students

(Ex. 4 students creating a

notebook for each word.

When possible, have

#### Word for Today: regrouping

Description: Regrouping is a mathematical term that describes what you do when you have a total that is more ones, tens, hundreds, etc. than nine or if you have a subtrahend that has a value in one column that is more that the minuend in that same place value. Regrouping allows you to translate tens into ones (like dimes into pennies), and hundreds into tens.

Review your Vocabulary Notebook for the term regrouping. Discuss this process with your friend.

Vocabulary Notebook Sample:	acting out an equation).			
New Word regroup	My DescriptionVocabulary Notebooks can be made from ½ of a composition book.regroupGetting digits in a math problem to be in the place value column correctlyComposition book.			
Personal Connection	Drawing			
When you subtract 81- 37, you must regroup making the units 11 and the tens 7 before you subtract.	81 <u>-37</u> 44			
Act Subtraction Subtraction When you are subtracting, you begin with the of greater than the top digit, you will need to regreate the tens, and instead of keeping the ten items a example, if you needed 8 items and you only has the package of ten so you could take out 8 of th needed 8 single items and you only had four, you separated, you would have the ten you separate have a total of 10 units plus 4 units from which would have 6 units left over. Work several 2 digit subtract subtraction proble board with the group. Use metacognition to she you solve the problem. Domino Subtraction Directions: 1. Divide student into pairs. 2. Give each pair a set of Double 9 domin 3. Player 1 draws 2 dominoes and create	ivity action ones or units column first. If the bottom digit is oup. Regrouping means that you take one of as a group you separate them into ones. For ad a package of 10, you would need to open up he single units. As another example, if you ou would still need to break apart a ten. Once ted + the 4 you already had, so you would now you would subtract the 8 you needed, so you ems that require the student to regroup on the are with the student what you are thinking as noes and white boards. s a subtraction problem:	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.		





Closin	g		
Review	N		
Say:			
<ul> <li>Please recap what we did today.</li> </ul>			
<ul> <li>Did we achieve our objectives?</li> </ul>			
Debrie	f		
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.		

- 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.



# 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:	3 <sup>rd</sup> Grade
Lesson Title:	Math Magic
Focus:	Addition and Subtraction

Materials:			
White boards	Vocabulary Notebooks	dice	
Crayolas	deck of cards, no face cards or joker	rs for math fact prac	tice
Activity at the end of the lesso	on plan Socks (use as erase	ers)	

#### Opening

#### State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How are addition and subtraction alike? How are they different? What does it mean to be a reciprocal process?

Content (the "Meat")					
Problem of the Day Grandma has 5 equal bags of radish seeds. If she has 75 seeds all together, how many seeds are in each bag? How do you know?	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in				
Fact Practice	with students repeatedly.				
Draw!	Check in about what is happening and what they are thinking				
<ol> <li>Divide students into pairs and give each pair a deck of cards</li> <li>Remove the face cards and jokers from the deck of cards.</li> <li>Shuffle the deck</li> </ol>	Take advantage of any teachable moments.				
<ol> <li>Online the deck.</li> <li>Decide who will go first.</li> <li>First player draws two cards.</li> <li>Student adds or subtracts the cards.</li> <li>Student writes his/her problem on the white board, writing a complete number sentence.</li> <li>Students take turns drawing cards and creating problems.</li> </ol>	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"				
	student become the teacher.				



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Math Vo Word for Today: reciprocal operations Description: The term "reciprocal operations" each other such as completing one operation to Addition and subtraction are reciprocal operation subtraction you start with a total and then find to Enter the term "reciprocal operations" in your V what this term means to you. Vocabulary Notebook Sample: New Word reciprocal operations	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 ½ of a composition book.	
Personal Connection	Drawing	
Addition is a reciprocal operation to subtraction	4 + 5 = 9; 9 - 4 = 5	
Addition and Subtraction Addition and Subtraction are reciprocal mather for a total of two or more groups; in subtraction take a portion of the total. Being able to go bac comfortably is important. To find if you have correctly done an addition p subtrahend, subtracting one of the addends, ar subtraction, you will add the difference and the Today we are going to practice moving between numbers. Math Magic <u>Directions:</u> 1. Divide students into groups of 3. 2. Give each group of 3 a Math Magic ga students a white board and game toke student a small piece of different color they tear off a small pieces.) 3. First player rolls all five dice. With the sentence by adding, subtracting and/o 5, and 4. I could say 3 + 6 = 8 + 2 = 10	people "compete" in pairs or small groups. Once a game is mastered you can utilize it in the "When Homework Is Complete" center.	

player. When all numbers are covered, play is over.

	Closing		
	Review		
Say:			
<ul> <li>Please recap what we did today.</li> </ul>			
<ul> <li>Did we achieve our objectives?</li> </ul>			
	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" studen	t getting ready to do this activity.		

- 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.





3 <sup>rd</sup> G	rade Math Magi	C			
	1	2	3	4	5
					6
	11	10	9	8	7
	12				
	13	14	15	16	17
					18
	23	22	21	20	19
	24				
	25	26	27	28	29
					30



Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Math Magic 2
Focus:	Addition and Subtraction

Materia	lls:		
White b	oards	Vocabulary Notebooks	dic
Crayola	S	Double 9 Dominoes	
Activity	at the end of this lesso	on plan Socks	(use for erasers

Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. What are some strategies that you use when you are trying to figure out how to solve a mathematics problem? How are addition and subtraction alike? How are they different? What does it mean to be a reciprocal process? Write several math problems on the board and invite students to come up and talk through the process.

#### Content (the "Meat")

#### Problem of the Day

Look at the following 3 multiplication fact problems. Replace one of the factors in each problem with 0 (zero), multiply and explain what happens and why.

## 5 x 3 = 15 5 x 9 = 45 7 x 8 = 56

## Fact Practice

#### **Spots and Dots** 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.

Players sit across from each other.

Dominoes are between them, face (or spots) down.

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

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#### \*Activity → 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.

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Addition: 2 + 3 = 5		
Math Vo Math term: reciprocal operations Description: The term "reciprocal operations" each other such as completing one operation to Addition and subtraction are reciprocal operation subtraction you start with a total and then find t Enter the term "reciprocal operations" in your V what this term means to you. Create an entry for the word digit in your Vocab Vocabulary Notebook Sample: New Word	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 ½ of a composition book.	
reciprocal operations	addition – subtraction, multiplication - division	
Personal Connection Addition is a reciprocal operation to subtraction	Drawing 4 + 5 = 9; 9 – 4 = 5	
Act Addition and Addition and Subtraction Addition and Subtraction are reciprocal mathen for a total of two or more groups; in subtraction take a portion of the total. Being able to go bac comfortably is important. To find if you have correctly done an addition p subtrahend, subtracting one of the addends, ar subtraction, you will add the difference and the Today we are going to practice moving betwee numbers. Math Magic <u>Directions:</u> 1. Divide students into groups of 3. 2. Give each group of 3 a Math Magic gas students a white board and game token student a small piece of different colore they tear off a small piece when they n	ivity d Subtraction natical processes. In addition you are looking you are looking for the difference after you ck and forth between addition and subtraction roblem, you can subtract, making the sum the nd then finding the second addend. To check minuend, and should arrive at the subtrahend. n addition and subtraction to find particular me board and six, 5-sided dice. Also give ns. (Notes: For tokens, you can give each ed construction paper, usually the scraps, and eed to mark the number. This way you do not	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.



have to keep track of small pieces.)

- First player rolls all five dice. With the numbers showing, student creates a number sentence by adding, subtracting and/or multiplying. For example, if I rolled a 3, 6, 2, 5, and 4. I could say 3 + 6 = 8 + 2 = 10 5 = 5 4 = 1 and then cover the one. I could also say, 3 2 = 1 + 6 = 8 + 5 = 13 4 = 9.
- 4. The object is to make a number that is not already covered.
- 5. When player cannot make a number, he/she misses the turn and it moves to the next player. When all numbers are covered, play is over.

	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 s	ame thing in the "real world"?
What advice would you give to a "new" studen	t getting ready to do this activity.

- 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.



# **Double 9 Dominoes**

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Do not use			
Do not use	$ \begin{array}{c} \bullet \\ \bullet \\$		











## 3<sup>rd</sup> Grade Math Magic

1	2	3	4	5
				6
11	10	9	8	7
12				
13	14	15	16	17
				18
23	22	21	20	19
24				
25	26	27	28	29
				30



Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	+ or -
Focus:	Addition and Subtraction

White boards Vocal	oulary Notebooks
Crayolas dice (	6-sided and 12-sided for each pair)
Socks (for erasers) deck	of card (one for every 2 players)

#### Opening

State the objective

Today we are going to practice using our math vocabulary and practice in the basic.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. It is important that you can go back and forth between the operations, even though each operation has its own set of guidelines. Create 5 addition and/or subtraction problems. Have a peer do the problems you created while you complete theirs.

Content (the "Meat")		
<b>Problem of the Day</b> Write at least 2 multiplication problems that has the product of 30. Write two stories, one for each of the two problems you created.	*Activity → Teachable Moment(s) <i>throughout</i> During the lesson check in	
Fact Practice Fact Family A Fact Family is 3 numbers which have a relationship in addition and subtraction. For example, the number 9, 4, and 13 have a particular relationship in math. This family has four members: 9 + 4 = 13 4 + 9 = 13 13 - 9 = 4 13 - 4 = 9	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 open- ended questions to determine what the rest of	
the white board. Student should roll a total of 5 times, creating 5 Fact Families	the group is thinking. When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.	



Math Vocabulary/ord for Today: minuend rescription: The term minuend refers to the number in a subtraction problem that is the umber that an amount will be taken from. The minuend if the largest of the 3 numbers. Both ne subtrahend and the difference will be smaller. teview the entry in your Vocabulary Notebook for the term subtrahend. Talk with a peer bout this word and what it means.It is important to revier academic math vocab often throughout the d Complete the Vocabu notebook for each word When possible, have students creatir right angle, multiple st acting out an equation Vocabulary Notebook minuendPersonal ConnectionDrawing		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 ½ of a composition book.
In the problem 58 – 23, the 58 is the minuend.	16 – 8 = 8	
Addition and Subtraction Addition and Subtraction are reciprocal mathematical processes. In addition you are looking for a total of two or more groups; in subtraction you are looking for the difference after you take a portion of the total. Being able to go back and forth between addition and subtraction comfortably is important. To find if you have correctly done an addition problem, you can subtract, making the sum the subtrahend, subtracting one of the addends, and then finding the second addend. To check subtraction, you will add the difference and the minuend, and should arrive at the subtrahend. Today we are going to practice moving between addition and subtraction to find particular		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.
<ul> <li>Addition or Subtracting <u>Directions:</u> <ol> <li>Divide students into pairs.</li> <li>Give each pair a deck of cards, remove board and 1 6-sided die.</li> <li>Shuffle the cards and place them face</li> <li>Player one draws six cards.</li> </ol> </li> <li>Player then rolls the die. If the number problem. If the number is odd, then he example:</li> </ul>	e the face cards, tens, and jokers, and a white down in between the students. r is even, then he/she must make an addition e/she must create a subtraction problem. For	
-	647 - <u>396</u>	

#### 647 +396

- 6. He/she find the sum or the difference (using a white board)
- 7. He/she shares his/her answer with Player 2.
- 8. Player 2 continues in the same way.
- 9. Play is complete when all cards have been used.
- Closing

   Review

   Say:
   •

   •
   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.

- 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.







Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	+ or -
Focus:	Addition and Subtraction

Materials:	
White boards	Vocabulary Notebooks
Crayolas	Deck of cards
Socks (use as erasers)	Dice

#### Opening

#### State the objective

Today we are going to practice using our math vocabulary and practice in the basic operations of addition, subtraction, multiplication, and division.

#### Gain prior knowledge by asking students the following questions

Math is about intentionally thinking of the relationships between numbers, operations, and the words we use to describe those things. It is important that you can go back and forth between the operations, even though each operation has its own set of guidelines. Create 5 addition and/or subtraction problems. Have a peer do the problems you created while you complete theirs.

Content (the "Meat")		
Problem of the Day	*Activity <del>→</del> Teachable Moment(s) <i>throughout</i>	
Look at the table below. Is the rule, "multiply by two?" How do you know?	During the lesson check in with students repeatedly.	
Out 16 20 24 28 32	Check in about what is	
Fact Practice Bump It Up! Add A Zero	thinking.	
<ol> <li>Divide students into pairs</li> <li>Give each pair a white board and a deck of cards (without face cards jokers or 10s)</li> </ol>	Take advantage of any teachable moments.	
<ol> <li>The object of this fact practice is to sum numbers until you reach 1,000.</li> <li>Student draws 2 cards, adds the value of the cards together, multiplies by ten and writes the total on the sheet.</li> </ol>	Stop the class and focus on a student's key learning or understanding. Ask open-	
<ol> <li>It is not the other person's turn to do the same</li> <li>When play returns to the first player, the process is repeated, although this time, the totals are added together.</li> </ol>	ended questions to determine what the rest of the group is thinking.	
<ol> <li>First person to 1,000 wins.</li> <li>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</li> </ol>	When possible, engage students in a "teach to learn" opportunity and have the student become the teacher.	



50 to 110 for a total of 160.		
Math Vocabulary         Word for Today: minuend         Description: The term minuend refers to the number in a subtraction problem that is the number that an amount will be taken from. The minuend if the largest of the 3 numbers. Both the subtrahend and the difference will be smaller.         Review the entry in your Vocabulary Notebook for the term subtrahend. Talk with a peer about this word and what it means.         Vocabulary Notebook Sample:         New Word		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)
minuend	<b>614</b> – 326 =	Vocabulary Notebooks can be made from ½ of a composition book.
Personal Connection In the problem 58 – 23, the 58 is the minuend.	Drawing ↓ 16 – 8 = 8	
Addition and Subtraction Addition and Subtraction are reciprocal mathematical processes. In addition you are looking for a total of two or more groups; in subtraction you are looking for the difference after you take a portion of the total. Being able to go back and forth between addition and subtraction comfortably is important. To find if you have correctly done an addition problem, you can subtract, making the sum the subtrahend, subtracting one of the addends, and then finding the second addend. To check subtraction, you will add the difference and the minuend, and should arrive at the subtrahend. Today we are going to practice moving between addition and subtraction to find particular numbers.		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.
<ul> <li>Addition or Subtracting <u>Directions:</u> <ol> <li>Divide students into pairs.</li> <li>Give each pair a deck of cards, remove the face cards, tens, and jokers, and a white board and 1 6-sided die.</li> <li>Shuffle the cards and place them face down in between the students.</li> <li>Player one draws six cards.</li> </ol> </li> <li>Player then rolls the die. If the number is even, then he/she must make an addition problem. If the number is odd, then he/she must create a subtraction problem. For example:</li> </ul>		
	647 <u>-396</u>	

#### 647 +396

- 6. He/she find the sum or the difference (using a white board)
- 7. He/she shares his/her answer with Player 2.
- 8. Player 2 continues in the same way.
- 9. Play is complete when all cards have been used.
- 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?

- 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.



Component	Math
Grade Level:	3 <sup>rd</sup> Grade
Lesson Title:	Student Activity Choice
Focus:	Review

#### Materials:

Game Boards and materials from this week.

Prizes (these can be time, a leadership role, opportunities to be the "teacher"

#### Opening

#### State the objective

Today we are going to have fun playing a game. Students will be able to choose from the games learned in the past two weeks.

#### Content (the "Meat")

#### Activity

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

Regrouping Connect the Dots #1 Connect the Dots #2 **Domino Subtraction** Math Magic **Addition or Subtraction** 

#### Closing

#### Review

Say:

- 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.



teams