

Math Intervention Lesson Plan, K-3

Subject: Math

Teacher(s): Bonnie Murphy

Week: November 28th- December 2nd

Accommodations Meeting 11-29 at 9:15-10:15

3rd Grade Collaboration Miller	<p>9:00-9:35</p> <p>Number Talks</p> <p>Standards: 3.OA.5 Apply properties of operations as strategies to multiply and divide.</p> <p>Core Math Idea: Number Talks this week will focus on eliciting multiplication strategies. Students will use various math materials to explore this concept. This is a concept that is foundational to problem solving involving other standards. During number talks the teacher will model how to notate students' strategies. This weeks' problem strings focus the relationships between multiplication and division and the properties of multiplication.</p> <p>Questions/Facilitation (re-voicing, repeating, reasoning, adding-on, waiting): Explain how you found the difference? Tell me more about...., I am wondering..... What do you notice about the subtrahend and minuend?</p> <p>Sharing Out/Wrapping up: Turn and Talks throughout...Record Student responses and strategies. Possible strategies include counting up or down, adding up, place value, etc.</p>	<p>Assessment: <i>anecdotal</i> <i>observation</i> <i>Exit Slip</i></p>
3rd Grade Collaboration Byerley	<p>9:40-9:40-10:10</p> <p>Math Small Groups-</p> <p>Standards: 3.OA.5 - Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$ then $15 \times 2 = 30$, or by $5 \times 2 = 10$ then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.) (Students need not use formal terms for these properties.)</p> <p>Monday- Thursday: Students use various math materials (graph paper, counters, tiles, etc.) to discover and apply properties of multiplication to solve problems with factors of 6-9.</p> <p>Friday-Students solve a real-world problem using new understanding from the weeks' activities. Students solve (no materials), then discuss with a partner. Then students will have the opportunity to prove their thinking using materials in small group math talk.</p>	<p>Assessment: <i>anecdotal</i> <i>observation</i> <i>Exit Slip</i></p>

3rd Grade Collaboration TIME - Dolci	<p>10:10-10:35</p>	<p>Math Small Groups</p> <p>Math Small Groups- Standards: 3.OA.5 - Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$ then $15 \times 2 = 30$, or by $5 \times 2 = 10$ then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.) (Students need not use formal terms for these properties.)</p> <p>Monday- Thursday: Students use various math materials (graph paper, counters, tiles, etc.) to discover and apply properties of multiplication to solve problems with factors of 6-9.</p> <p>Friday-Students solve a real-world problem using new understanding from the weeks' activities. Students solve (no materials), then discuss with a partner. Then students will have the opportunity to prove their thinking using materials in small group math talk.</p>	<p>Assessment: <i>anecdotal</i> <i>observation</i> <i>Exit Slip</i></p>
3rd Grade RTI	<p>10:35-10:55</p>	<p>Objective: I can add or subtract a single digit number or 10 from a number in the range 1 to100!</p> <p>Standard(s): 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>Vocabulary: value, add, subtract, difference, sum,</p> <p>Activities/Strategies: 3 In A Line C, D, or E- The student will roll the cubes/spinner, determine the sum or difference (as indicated by the roll) and cover that number on his or her board. Students are encouraged to use a base-ten manipulative such as bundles and sticks, 10 frames or a 10 row bead rack to work out the problem or as a "check" to verify a predicted answer. The first player with 3 in a line (any direction) wins. Allow students to skip the "building" step if they are confident and can explain what would happen with the materials.</p> <p>Math Race! Rules: Students solve math questions as they try and race their markers (each student has 2) to the finish line on the game board. Sample question: What are two numbers that add up to 51?</p> <p>Steal the Crown!- Game starts by selecting a numeral card and placing a marker on the hundreds chart. Then students choose addition or subtractions cards and must find the sum or difference. Students will also practice notating their work to show how they determined the total. Specialty cards can be drawn. Game ends when the treasury (stack of cards) equals or exceeds 100. The player who has the crown wins.</p>	<p>Assessment: <i>anecdotal</i> <i>observation</i> <i>Exit Slip</i></p>

3rd Grade RTI	10:55-11:15	<p>Objective: I can add or subtract a single digit number or 10 from a number in the range 1 to100!</p> <p>Standard(s): 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>Vocabulary: value, add, subtract, difference, sum,</p> <p>Activities/Strategies: 3 In A Line C, D, or E- The student will roll the cubes/spinner, determine the sum or difference (as indicated by the roll) and cover that number on his or her board. Students are encouraged to use a base-ten manipulative such as bundles and sticks, 10 frames or a 10 row bead rack to work out the problem or as a "check" to verify a predicted answer. The first player with 3 in a line (any direction) wins. Allow students to skip the "building" step if they are confident and can explain what would happen with the materials.</p> <p>Math Race! Rules: Students solve math questions as they try and race their markers (each student has 2) to the finish line on the game board. Sample question: What are two numbers that add up to 51?</p> <p>Steal the Crown!- Game starts by selecting a numeral card and placing a marker on the hundreds chart. Then students choose addition or subtraction cards and must find the sum or difference. Students will also practice notating their work to show how they determined the total. Specialty cards can be drawn. Game ends when the treasury (stack of cards) equals or exceeds 100. The player who has the crown wins.</p>	<p>Assessment: <i>anecdotal observation</i> <i>Exit Slip</i></p>
	Lunch/ Planning	11:15-11:45	Lunch

2nd Grade RTI	11:45-12:05	<p>Objective: I can use many strategies to add and subtract within 20 (and within 100). I can use base-ten materials to help me add and subtract one and two digit numbers.</p> <p>Standard(s): 2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.</p> <p>Vocabulary: 20 frame, combination, subtraction, mental strategy,</p> <p>Activities/Strategies: Stack 20-frames face down. Students take turns turning over the top 20-frame. Others quickly write the number that goes with the quantity on the 20-frame to make 20. Ex: first student flips over 4, then the remaining students race to write 16. The one who turned over the 20 frame (or the teacher) is in charge of judging the winner of the round. Continue until someone wins at least 5 rounds. If all the 20-frames have been used, reshuffle and start again or stop play after one time through the stack.</p> <p>**To start the week have students use empty 20 frames and use chips to make numbers. Then ask students how many more to make 20. Have students share their strategies for finding out quickly how many more to make 20. (Either pair wise or 10+ arrangements may be used. If desired, have students compete to write the amount shown on the 20 frame.)</p> <p>High/Low Rollers (within 20)-Students add and subtract within 20 and practice notating. Fill the Pockets- Students draw two ten frame cards. Example: 7 and 5. Then they must show which 10 + equation can be made using those addends. This helps develop the making 10 strategy-they must decompose the 5 into a 3 and 2. Move the 3 with the 7 to make 10 and then add on 2. So, 10+2 =7 +5 Math Talks- Two digit addition 2 digit addition split game-Start by having students use materials (bundles and sticks) to add horizontal 2 digit addition problems. Then model for students how to notate. Students then practice using cards</p> <p>Three in a Line-add and subtract with Materials- Students use bundles and sticks to discover patterns and relationships when adding on 10s. Focus students thinking on the "ten-ness" of our number system to determine when we will need to make a ten or regroup.</p>	<p>Assessment: <i>anecdotal observation</i> <i>Exit Slip</i></p>
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12:05-12:25

Objective: I can use many strategies to add and subtract within 20 (and within 100).
I can use base-ten materials to help me add and subtract one and two digit numbers.

Standard(s): 2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Vocabulary: 20 frame, combination, subtraction, mental strategy,

Activities/Strategies: Stack 20-frames face down. Students take turns turning over the top 20-frame. Others quickly write the number that goes with the quantity on the 20-frame to make 20. Ex: first student flips over 4, then the remaining students race to write 16. The one who turned over the 20 frame (or the teacher) is in charge of judging the winner of the round. Continue until someone wins at least 5 rounds. If all the 20-frames have been used, reshuffle and start again or stop play after one time through the stack.

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(Either pair wise or 10+ arrangements may be used. If desired, have students compete to write the amount shown on the 20 frame.)

High/Low Rollers (within 20)-Students add and subtract within 20 and practice notating.

Fill the Pockets- Students draw two ten frame cards. Example: 7 and 5. Then they must show which 10 + equation can be made using those addends. This helps develop the making 10 strategy-they must decompose the 5 into a 3 and 2. Move the 3 with the 7 to make 10 and then add on 2. So, $10+2=7+5$

Math Talks- Two digit addition

2 digit addition split game-Start by having students use materials (bundles and sticks) to add horizontal 2 digit addition problems. Then model for students how to notate. Students then practice using cards

Three in a Line-add and subtract with Materials- Students use bundles and sticks to discover patterns and relationships when adding on 10s. Focus students thinking on the "ten-ness" of our number system to determine when we will need to make a ten or regroup.

Assessment: anecdotal
observation
Exit Slip

12:25-1:00

Kindergarten-

Extra Group-

Tic-Tac-Teen- Students use twenty frames to identify the quantity of teen numbers and then find the matching numeral.

Teen Grab Bags- Students practice counting collections that are in the teens then practice writing the teen number that matches.

Students will take a teen assessment on Friday.

Assessment:
anecdotal
observation
Exit Slip

1st Grade RTI	1:00-1:20	<p>Objective: I can use the relationship between addition and subtraction to add and subtract numbers up to 20.</p> <p>Standard(s): 1.OA.3 Apply properties of operations as strategies to add and subtract. 1.OA.5 Relate counting to addition and subtraction.</p> <p>Vocabulary: more, less, add, subtract, predict,</p> <p>Activities/Strategies:</p> <p>BNWS-Count arounds from numbers less than 30 to practice their backward number word sequence. Numeral Tracks can be used for support materials.</p> <p>Ten Frame Flash-students practice subitizing.</p> <p>Magic Box- Students discover number relationships and make predictions based on these relationships. Students receive a number line and two different color cubes to help them determine if they will need to add or subtract.</p> <p>Grab Bag- Display an addition or subtraction card. Put counters in the bag to match the first number on the card then use questioning to determine if we will need to take some out or add more to the bag. Have students explain how they know to justify their thinking.</p>	<p>Assessment: <i>anecdotal observation Exit Slip</i></p>
1st Grade RTI	1:20-1:40	<p>Objective: I can use the relationship between addition and subtraction to add and subtract numbers up to 20.</p> <p>Standard(s): 1.OA.3 Apply properties of operations as strategies to add and subtract. 1.OA.5 Relate counting to addition and subtraction.</p> <p>Vocabulary: more, less, add, subtract, predict,</p> <p>Activities/Strategies:</p> <p>BNWS-Count arounds from numbers less than 30 to practice their backward number word sequence. Numeral Tracks can be used for support materials.</p> <p>Ten Frame Flash-students practice subitizing.</p> <p>Magic Box- Students discover number relationships and make predictions based on these relationships. Students receive a number line and two different color cubes to help them determine if they will need to add or subtract.</p> <p>Grab Bag- Display an addition or subtraction card. Put counters in the bag to match the first number on the card then use questioning to determine if we will need to take some out or add more to the bag. Have students explain how they know to justify their thinking.</p>	<p>Assessment: <i>anecdotal observation Exit Slip</i></p>

1:45-2:05

Objective: I can add numbers for combinations up to 12 (using dot patterns on dice). I can identify numbers 2-12. I can count collections and write numerals 4-9.

Standard(s): K.CC.4a Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.3 Write numbers from 0-20. Represent a number of objects with a written numeral. K.CC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. COMPARE numbers.

Vocabulary: teen numbers-eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen
More , less

Activities/Strategies:

Flash subitizing cards -regular and irregular dot patterns.

Grab Bag Counting Station with teen numbers- Students grab handfuls of objects, count, and then write the numeral on their game board.

Cookie Company- Student use trays of ten cookies and some more to explore how to write teen numbers.

Diffy Game-Students select a numeral card and counts cubes to make a tower with the quantity. Then compare students' towers to discuss most, more, least, less.

Counters in a Row-Teacher screens an amount then continues to place additional counters. Student practice counting on from a screened collection.

Assessment:

*anecdotal
observation
Exit Slip*

<p>2:05-2:25</p>	<p>Objective: I can add numbers for combinations up to 12 (using dot patterns on dice). I can identify numbers 2-12. I can count collections and write numerals 4-9.</p> <p>Standard(s): K.CC.4a Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.3 Write numbers from 0-20. Represent a number of objects with a written numeral. K.CC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. COMPARE numbers.</p> <p>Vocabulary: teen numbers-eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen More , less</p> <p>Activities/Strategies: Flash subitizing cards -regular and irregular dot patterns.</p> <p>Grab Bag Counting Station with teen numbers- Students grab handfuls of objects, count, and then write the numeral on their game board.</p> <p>Cookie Company- Student use trays of ten cookies and some more to explore how to write teen numbers.</p> <p>Diffy Game-Students select a numeral card and counts cubes to make a tower with the quantity. Then compare students' towers to discuss most, more, least, less.</p> <p>Counters in a Row-Teacher screens an amount then continues to place additional counters. Student practice counting on from a screened collection.</p>	<p>Assessment: <i>anecdotal observation</i> Exit Slip</p>
<p>2:25-3:05</p>	<p>Planning</p>	<p>Assessment: <i>anecdotal observation</i> Exit Slip</p>
<p>3:05-3:30 2nd Grade RTI</p>	<p>Objective: I can use many strategies to add and subtract within 20 (and within 100). I can use base-ten materials to help me add and subtract one and two digit numbers.</p> <p>Standard(s): 2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.</p> <p>Vocabulary: 20 frame, combination, subtraction, mental strategy,</p> <p>Activities/Strategies: Stack 20-frames face down. Students take turns turning over the top 20-frame. Others quickly write the number that goes with the quantity on the 20-frame to make 20. Ex: first student flips over 4, then the remaining students race to write 16. The one who turned over the 20 frame (or the teacher) is in charge of judging the winner of the round. Continue until someone wins at least 5 rounds. If all the 20-frames have been used, reshuffle and start again or stop play after one time through the stack.</p> <p>**To start the week have students use empty 20 frames and use chips to make numbers. Then ask students how many more to make 20. Have students share their strategies for finding out quickly how many more to make 20. (Either pair wise or 10+ arrangements may be used. If desired, have students compete to write the amount shown on the 20 frame.)</p> <p>High/Low Rollers (within 20)-Students add and subtract within 20 and practice notating. Fill the Pockets- Students draw two ten frame cards. Example: 7 and 5. Then they must show which 10 + equation can be made using those addends. This helps develop the making 10 strategy-they must decompose the 5 into a 3 and 2. Move the 3 with the 7 to make 10 and then add on 2. So, 10+2 =7 +5 Math Talks- Two digit addition</p>	<p>Assessment: <i>anecdotal observation</i> Exit Slip</p>

		<p>2 digit addition split game-Start by having students use materials (bundles and sticks) to add horizontal 2 digit addition problems. Then model for students how to notate. Students then practice using cards</p>	
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Three in a Line-add and subtract with Materials- Students use bundles and sticks to discover patterns and relationships when adding on 10s. Focus students thinking on the “ten-ness” of our number system to determine when we will need to make a ten or regroup.