

# PACING CHANGE



JULY 22, 2016

OAISD See optional pacing guide changes document for details

### Third Grade - Unit 4 Math Expressions Common Core Edition July 22, 2016 MATH EXPRESSIONS CCSS GRADE 3- UNIT 4

Hints to Unit 4

- New Groups Below and Show All Totals are introduced to help students see and discuss core mathematical ideas about addition and subtraction.
- New Groups Below
  - Record the digit on the line below
  - o Can see the tens and ones, or hundreds and tens more closely together
- Show All Totals
  - $\circ$   $\;$  Add in each place, record total for each place then add totals to find the sum
  - o Reduces the problem of carrying because you write the total on each new line
  - Can be done in either direction
- New Groups Above is a common algorithm, but not the only standard algorithm
- Subtraction
  - Ungroup all first before they subtract
    - Reduces errors
    - Helps develop conceptual understanding of multi-digit subtraction

#### Place value activities build understanding of the base ten numeration and provide foundation to understand the grouping and ungrouping concepts

- Use drawings to show grouping and ungrouping
  - o Drawings help visualize the magnitude of numbers
  - Once conceptual understanding of number of ones inside each place, then move to drawings without dots (quick tens, hundreds)
- Addition and subtraction as inverse operations
- Estimating provides students with methods to validate their answers
- Variety of algorithm allows kids to choose the one that best suits them
- Each algorithm emphasizes grouping and ungrouping
- Drawings can be used to self-correct or attach meaning or explain their numerical method to someone else
- Add and sub within 1000 for fluency are based on place value and/or relationship between add and sub
- The power of the base ten system is in the repeated bundling by ten, repeating this process of creating new unit

### Second Grade skills...

Used place value properties and drawings to understand the relationship between addition and subtraction

### Third Grade ...

Use place value drawings to represent numbers – this will help with rounding!!

Use place value drawings and different methods to add and subtract numbers and use place value strategies to understand the relationship between addition and subtraction

July 22, 2016

#### April 2017

4/10 Begin Unit 4

4/11 – end of the year - Use interim Data Results to Guide Extra Math Re-teaching opportunities

4/18 Unit 4 Quick Quiz 1

4/19 Re-teaching day for Unit 4 Quiz 1 (Mastery Learning Loop protocols)

4/27 Unit 4 Quick Quiz 2

4/28 Re-teaching day for Unit 4 Quiz 2 (Mastery Learning Loop protocols)

4/25 - 5/13 M-Step window

roday K	> April 2017			uay	теек	MOREN	o uays	Ageno
Mon	Tue	Wed	Thu			Fri		
3	4	5	6			7		
Spring Break						_		
10	11	12	13			14		
Begin Unit 4 - PACA	NS CHANGE U							
17	18	19	20			21		
	Unit 4 QUIZ 1 - Give at the END of	Releaching Day - Small group in:						
24	25	26	27			28		
			Unit 4 C	luiz 2 - Give	at the END of	Reteachin	g Day - Small	group ins

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#### May 2017

5/1 – 5/26 M-Step window

5/11 Unit 4 Quick Quiz 3

5/12 Re-teaching day for Unit 4 Quiz 3 (Mastery Learning Loop protocols)

5/30 Math Practice Lesson from Unit 4

5/31 – 6/2 Window of days to utilize the <u>Mastery Learning Loop</u> and take the Unit 4 Test and Performance Task from Unit 6 *Rest of the year - Use interim Data Results to Guide Math Re-teaching opportunities* 

	19911						
Mon	Tue	Wed	Thu		Fri		
May 1	2	3	4		5		
MStep Testing Window	W C						
8	9	10	11		12		_
MStep Testing Windo	9W		Unit 4 Quiz 3 - av	ve at the END of	Reteachin	ig Day - s <del>-a</del> li	l group ini
15 MStep Testing Windo	16 3W	17	18		19		_
22 Moteo Testion Minde	23	24	25		26		
morep reading white	41						
29	30	31	Jian 1		2		
	Mathematical Practice Lesson	Unit 4 Testing Wind	IOW - Performence Task		7		

	Grade 3 Pacing at a Glance					
Unit	<b>1 day for each Lessons</b> Some special cases where lessons take more than one day are accounted for and are shown in the detailed pacing guide	1 day to <u>reteach</u> any concepts/strategies from the quiz	1 test per unit 2-3 days for mastery	Instructional Days (Including Mastery Learning Loop)		
1	19	4 days (4 quizzes)	2-3	25-26		
2	15	2 days (2 quizzes)	2-3	19-20		
3	15	3	2-3	20-21		
4	18	3	2-3	23-24		
5	11	2	2-3	15-16		
6	11	2	2-3	15-16		
7	7 9 2 2-3 13-14					
Total	98	18	14-21	131-138		

<b>GRADE 3</b> Math Rtl Grade 2 CCSS MX Teacher Edition				
Identify numbers to 1,000 2.NBT.3	Unit 2 Lesson 1 Ones, tens and hundreds Unit 2 Lesson 2 Activity 1 Draw Quick 10s and 100s Unit 2 Lesson 3 Activity 2 Expanded form, Activity 3 Read, Write names			
Mentally add and subtract 10 or 100 to an umber between 100 and 900 2.NBT.8	Unit 2 Lesson 4 Activity 3 Add 1, 10, 100 to a number			
Compare numbers to 1,000 2.NBT.4	Unit 2 Lesson 5 Compare within 200 Unit 6 Lesson 3 Compare 3 digit numbers			
Add 2-digit numbers 2.NBT.5a	Unit 2 Lesson 7 Show all totals Unit 2 Lesson 8 Activity 1 New groups below Unit 2 Lesson 13 Activity 2 Game addition			
Subtract 2-digit numbers 2.NBT.5b	Unit 4 Lesson 3 Unit 4 Lesson 8 When to ungroup Unit 4 Lesson 5 Methods Unit 4 Lesson 7 Subtract from 200 Unit 4 Lesson 9 Zeros Unit 4 Lesson 11 Game subtraction			

Grade 4 Rtl Standards			
Readiness Standards - fou	nd in Grade 3 Units- Essential for Grade 4		
Grade	3 CCSS MX Teacher Edition		
Add 3 digit numbers 3.NBT.2a	Unit 4 Lesson 1 Activity 1&2 Place Value drawings Unit 4 Lesson 2 Activity 1&2 secret code cards Unit 4 Lesson 5 Activity 1 rounding Unit 4 Lesson 7 Activity 1&2 methods Unit 4 Lesson 9 Activity 1 grouping		
Subtract 3-digit numbers 3.NBT.2b	Unit 4 Lesson 11 Activity 1 methods Unit 4 Lesson 12 Activity 1,2&3 zeros Unit 4 Lesson 13 Activity 1 methods and Unit 4 Lesson 14 Activity 1 diagrams		
Multiply numbers from 0-10 3.OA.7a	Unit 1 Lesson 1 & 2 All Activities Unit 1 Lesson 3 Activities 3&4 area model Unit 1 Lesson 11 Activity 1&2 methods Unit 1 Lesson 15 Activity 4 associative property Unit 2 Lesson 1 Activity 1&2 Strategies for 6s Unit 2 Lesson 3 Activity 3 Strategies for 8s Unit 2 Lesson 5 Activity 2 Strategies for 7s		
Multiplication and Division Games	Unit 1 Lesson 17 Activity 2 Unit 2 Lesson 7 Activity 2		
Divide numbers by 1 to 10 3.OA.7b	Unit 1 Lesson 4 Activity 2&3 Unit 1 Lesson 11 Activity 2 strategy cards Unit 1 Lesson 15 Activity 4 division rules		
Identify fractions and their parts. 3.NF.1	Unit 7 Lesson 1 Activity 1&2 and Unit 7 Lesson 2 All		
Identify fractions on a number line. 3.NF.2	Unit 7 Lesson 2 Activity 1 bars, Activity 2&3 lines Unit 7 Lesson 3 Activity 1&2 locate on lines		
Compare fractions with the same numerator or same denominator. 3.NF.3d	Unit 7 Lesson 4 & 5 All Unit 7 Lesson 6 & 7 All equivalence		

Unit 4 Are you using math sense making to about math structure using math drawings to support math explaining?					
Big Idea 1:	Understand Place Value a	nd Rounding			
Lesson	Quick Practice	Materials	Common Core Standard/Practice	Words To Use	
4.1	Practice multiplications and divisions. Practice with Product Cards Write Multistep Word Problems Practice with 3s, 4s, and 9s	SAB: 213-218 SHC: 213-218 & AB: 149-152 (family Letter included) HR: 177-178 (could be included in student portfolio)	MP: 2,3,5,6,7 CC.3.NBT.1 CC.3.NBT.2	Place value, Drawing, Ten stick Hundred box, Thousand bar	
Lesson Focus	Make and interpret place value drawings.				
Formative Assessment	Ask students to explain how the nubecause a 5 in the hundreds place without dots to show how the nur	umber 251 is different from the n has a value greater than a 2 in the nbers are different.	umber 521. Students should e hundreds place. Students n	explain that the values are different nay use place value drawings with or	
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Create place value drawings for 2- and 3-digit numbers. A2: Interpret and make place value drawings for thousands, hundreds, tens, and ones. A3: Use place value to compare numbers.				
NotesRead 413AA-413CCPlace value drawings help conceptualize numbers and understand the relative sizes of place values. Use the dot side of the grid on your math boards - be intentional about circling the dots for one, and draw a line through dots for the tens and box the lines to show the hundred. This helps to visualize the magnitude of numbers. Using sub-groups of 5 to group makes counting easier and kids have done this since grade k. Use drawings to compare numbers.I highly encourage saying the value of each digit when writing any number76 - 7 tens, 6 ones - seventy-six1					
4.2	Practice multiplications and divisions.	SAB: 219A-219D AB: 153-156	MP: 2,3,5,6,7 CC.3.NBT.1	Digit Expanded form	

	Practice with Product Cards Write Multistep Word Problems Practice with 3s, 4s, and 9s	Secret code cards HR: 179-180	CC.3.NBT.2	Standard form Secret Code Cards		
Lesson Focus	Identify the value of a digit.					
Formative Assessment	Ask students to give the value of t in the tens place and has a value o 80.	the 8 in 384 and use the Secret Co of 80. Students should expand th	ode Cards to show they are o e Secret Code Cards to show	correct. Students should explain that the 8 is v 384 and to show that the 8 has a value of		
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Read 3-digit numbers from models. A2: Build 2- and 3-digit numbers with Secret Code Cards.					
Notes	Read 413AA-413BB Use of the cards is beneficial for students because cards emphasize how the position of the digit in the number determines the value of the digit. Continue to emphasize place value language. Code cards has the drawing to further understand the value of each number, the numbers on the front further understanding of the position of the digit determines the value					
4.3	Practice multiplication and divisions. Practice with product Cards Write Multistep Word Problems Practice with 6s, 7s, and 8s	SAB: 219-220 SHC: 219-220 secret code cards HR: 181-182 (could be included in student portfolio)	MP:1,3,4,5,6,7 CC.3.NBT.1 CC.3.NBT.2	Expanded form Standard form		
Lesson Focus	Use an understanding of place value to group and ungroup multidigit numbers and solve word problems.					
Formative Assessment	Ask students to explain how they can find how many baskets of 100 peaches can be made with 742 peaches and how many will be left over. Students should explain that the hundreds place tells them how many baskets of 100 can be made: 7. The tens and ones tells how many will be left over: 42.					
I CAN	Instructional Strategies: Student Outcome:					

Learning Targets	A1: Represent multi-digit numbers as sums of thousands, hundreds, tens, and ones. A2: Solve place value word problems.					
Notes	Read 413AA-413BB Draw models understanding multi-digit add/sub. concept	Read 413AA-413BB Draw models to help understand structure. Understanding grouping and ungrouping is very important to understanding multi-digit add/sub. Any and all methods kids come up with are great to show to all kids. Use PV blocks if still struggling with concept				
4.4	Practice multiplications and divisions. Practice with Product Cards Write Multistep Word Problems Practice with 6s, 7s, and 8s	SAB: 221-222 SHC: 221-222 secret code cards HR: 183-184	MP: 1,3,4,5,6,7 CC.3.NBT.1 CC.3.NBT.2	Counting on strategy Make a Ten strategy Hundreds Tens Ones		
Lesson Focus	Identify numbers from scrambled place value names and solve word problems.					
Formative Assessment	Ask students to explain how to use place value to add 700 + 500. Students should explain that 7 hundreds plus 5 hundreds is 12 hundreds or 1 thousand 2 hundred.					
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Identify numbers expressed in scrambled order. A2: Solve place value word problems.					
Notes	Read 413AA-413BB Teaching no counting on hundreds to make tho	te 439!!- about using a ten frame usands – all based on the hands o	to make decade numbers co n ten frame with objects from	unting on by tens to make hundreds or page 439		
4.5	Practice multiplication and divisions. Practice with Product Cards Create Unknown Number Puzzles Practice with 6s, 7s, and 8s	SAB: 223-224 SHC: 223-224 HR: 185-186	MP: 1,2,3,5,6,8 CC.3.NBT.1	Estimate Round		
Lesson Focus	Round numbers to the nearest hundred to estimate sums and differences.					

Formative Assessment	Ask students to explain how to round a number with a 7 in the tens place to the nearest hundred. Students should explain that a number with a 7 in the tens place is closer to the next hundred, so the number should be rounded up to the next hundred.			
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Round numbers to the nearest hundred. A2: Estimate sums and differences and estimate to decide if answers are reasonable.			
Notes	Read 413CC-413II Use drawings and cards to round place on the number board to see the number line (find closest number with no ones or no tens and ones) Precision – make sure kids know definition – precise math language! Teaching note 444! – explains possible strategies to estimate			
4.6 Could take 2 days	Practice multiplications and divisions. Practice with Product Cards Create Unknown Number Puzzles Practice with 6s, 7s, and 8s	SAB: 225-228 SHC: 225-228 Quick Quiz 1 Fluency check 4 Secret code cards HR: 187-188 (could be included in student portfolio)	MP: 2,3,5,6 CC.3.NBT.1	
Lesson Focus	Round numbers to the nearest	ten to estimate sums and diff	erences.	
Formative Assessment	Ask students how to estimate a sum or difference by rounding and give an example. Students should explain using their example to first round the numbers to the nearest ten or nearest hundred. Then add or subtract the rounded numbers.			
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Round numbers to the nearest ten. A2: Round to estimate sums and differences, estimate quantities, and estimate to decide if answers are reasonable.			
Notes	Read 413CC, 413II Careful to no Use place value drawings and secre	ot round down to the hundreds – t code cards if kids are still strugg	use drawing to show t ling Help kids under	he hundred values that surround the number stand when rounding you will end in a 0

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### Quick Quiz 1 – 1 Day *for reteaching*

### Give quiz after teaching lesson 6 – then take this day to reteach/enrich per each quiz item.

This quiz will allow you to see if initial learning took place. If it did not the extra day is spent to spend more time with only those students that need help on the specific items on the quiz, in order to be more successful for the next Big Idea. If kids are doing well, take the time to enrich using the Differentiated Cards, or other higher order thinking activities. This time spent on re-teaching or enrichment will allow for you to keep on pace with not over teaching to only a select few that may need help, it also allows for the enrichment for students who need more of a challenge to go deeper with their understanding. Designated stopping at critical times helps eliminate unorganized re-teaching times during a lesson/activity.

Found on OAISD Math Resources K-5 (Balanced Assessment Resouces) or Think Central

	Fluency Check					
Big Idea 2:	Big Idea 2: Addition and Subtraction Strategies and Group to Add					
4.7	Practice multiplications and divisions. Practice with Product Cards Create a Poster Practice with 3s, 4s, and 9s	SAB: 229-230 SHC: 229-230 Secret code cards HR: 189-190	MP: 1,3,5,6 CC.3.NBT.1 CC.3.NBT.2	Proof drawing Show All Totals method New Groups Below method New Groups Above method		
Lesson Focus	Discuss and apply multidigit addition methods.					
Formative Assessment	Ask students to explain how to add 614 and 293 numerically and with a proof drawing. Students should explain how to add using the New Groups Above method, the New Groups Below method or the Show All Totals method for addition, and make a proof drawing.					
I CAN	Instructional Strategies: Student Outcome:					
Learning Targets	A1: Make proof drawir A2: Compare and discu	ngs to illustrate adding. Iss different multi-digit addition	methods.			
Notes	Read 413DD-413EE Once stud computations Encourage stud	ents understand that numbers a ents to use PV drawings to add	re composed of ones, tens, hundre – this allows them to visualize the r	ds decomposing and composing units in egrouping of 10 ones as 1 ten and 10 tens		

	as 1 hundred <u>*** read lesson ahead of time*** All notes – read everything!</u> The uniformity of the place value system facilitates understanding of place value concepts but it also provides the foundation for successfully completing standard algorithms for computation within the base ten system – when they understand numbers are composed of ones, tens, hundreds and so on they can use this understanding to decompose and compose numbers in computations without drawings. <b>MUST make PICTURES to add and subtract before</b> <b>numeric methods are introduced!! Proof drawings are used to visually illustrate the grouping process in addition and the ungrouping</b> <b>process in subtraction</b> . Then kids link drawings to numeric method, then move to just numerical method and use the drawing to self correct				
4.8	Practice multiplications and divisions. Practice with Product Cards Create Poster Practice with 3s, 4s, and 9s	SAB: 231-232 SHC: 231-232 HR: 191-192	MP: 1,2,3,4,5,6 CC.3.NBT.1 CC.3.NBT.2	Expression	
Lesson Focus	Apply and discuss multidigit addition methods with place value alignment.				
Formative Assessment	Ask students how to subtract 150 – 70 by counting on by tens. Students should explain one of the three methods. Count on by tens: start with 70 and count on to 150. Place value: 7 tens + 8 tens = 15 tens. Or show the counting on with a drawing.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Solve multi-digit addition problems and discuss solution methods. A2: Discuss the importance of aligning place value columns before adding. A3: Extend Counting On and Make a Ten subtraction strategies				
Notes	Read 413DD-413EE It is ok for kids to say 200 plus 100 plus 300 instead of 2 hundreds plus, 1 hundred plus, 3 hundreds – they need to use both Turn paper to use lines as place value columns Kids are use to only giving answers – encourage to explain 1 or 2 things about a problem = and ≠ together help clear up misconceptions – use "has the same value as" to help this too.				
4.9	Practice multiplications and divisions Practice with Product Cards Create Poster Practice with 2s, 5s, and 10s	SAB: 233-234 SHC: 233-234 HR: 193-194	MP: 1,2,3,6 CC.3.NBT.2	Grouping	
Lesson Focus	Decide when and how to group	in multidigit addition.			

Formative Assessment	Ask students to explain when they need to group and how to group when adding. Students should explain that they need to group when the ones or tens are more than 9. They should also explain where to write the new group number for the method they are using.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Discuss when and how to group when adding. A2: Use addition to solve word problems with multi-digit numbers.				
Notes	Read 413DD-413EE, 413II Students do not need to make place value drawings once they can demonstrate they have a solid understanding of pv and grouping and can explain their addition using pv language				
4.10	Practice multiplications and divisions.SAB: 235-236MP: 1,3,6Groupingdivisions.SHC: 235-236CC.3.NBT.1Practice with Product Cards Invent Rhymes or SongsQuick Quiz 2CC.3.NBT.2Fluency Check 5Fluency Check 5Practice with 6s, 7s, and 8sHR: 195-196				
Lesson Focus	Identify and explain errors in addition and solve word problems.				
Formative Assessment	Ask students to discuss examples of common errors they identified. Students should be able to explain that some common errors they found included forgetting to make a new hundred, writing the ones above the tens column and the new 1 ten in the ones column, forgetting to make a new ten and a new hundred.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Identify and correct addition errors. A2: Solve word problems using addition of multi-digit numbers.				
Notes	Read 413DD-413EE, 413II This is a great place for kids to be specific as to what to look for when you ask them to "check their work"				
	Quick Quiz 2 – 1 Day <u>for</u> reteaching				

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### Give quiz after teaching lesson 10 – then take this day to reteach/enrich per each quiz item.

This quiz will allow you to see if initial learning took place. If it did not the extra day is spent to spend more time with only those students that need help on the specific items on the quiz, in order to be more successful for the next Big Idea. If kids are doing well, take the time to enrich using the Differentiated Cards, or other higher order thinking activities. This time spent on re-teaching or enrichment will allow for you to keep on pace with not over teaching to only a select few that may need help, it also allows for the enrichment for students who need more of a challenge to go deeper with their understanding. Designated stopping at critical times helps eliminate unorganized re-teaching times during a lesson/activity.

Found on OAISD Math Resources K-5 (Balanced Assessment Resouces) or Think Central

Fluency Check						
Big Idea 3:	Big Idea 3: Ungroup to Subtract					
4.11	Practice multiplications and divisions. Practice with Product Cards Build Board Games Practice with 2s, 5s, and 10s	SAB: 237-238 SHC: 237-238 HR: 197-198 (could be included in student portfolio)	MP: 1,2,3,4,6,7 CC.3.NBT.2	Ungrouping Subtract		
Lesson Focus	Explore methods for subtracting multidigit numbers.					
Formative Assessment	Ask students to explain a method they learned for subtracting multi-digit numbers. Students should explain the Expanded method, the Ungroup First method, or the Common U.S. method for subtracting.					
<b>I CAN</b> Learning Targets	Instructional Strategies: Student Outcome:					
Notes	<ul> <li>A1: Solve problems using different subtraction methods.</li> <li>A2: Discuss ways to avoid common subtraction errors.</li> <li>Read 413FF-413GG PV drawings show how to ungroup a hundred or ten – it shows the taking away The numeric method parallels the addition algorithm the kids learned Ungrouping units of greater value into units of lesser value – 1 ten into 10 ones Encourage</li> </ul>					

	ungrouping all at once before subtracting If kids are subtracting the lesser digit from the larger one, instead of ungrouping – draw a circle around the top numbers to bring it to their attention. This lesson is a HUGE focus on seeing the parallel presentation of their understanding of place value and addition to subtract. <b>490 &amp; 493 read!</b>				
4.12	Practice multiplications and divisions. Practice with Product Cards Coaching Practice with 3s, 4s, and 9s	SAB: 239-242 SHC: 239-242 HR: 199-200 (could be included in student portfolio)	MP: 1,2,3,4,6 CC.3.NBT.2	Ungrouping	
Lesson Focus	Subtract with zeros in the top number.				
Formative Assessment	Ask students to explain a method to subtract across zeros in the top number. Students should be able to explain the process of ungrouping to subtract.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Solve subtraction problems with zeros in the top number. A2: Practice subtraction with zeros in the top number. A3: Decide when to ungroup.				
Notes	Read 413FF-413GG <b>Ungroup first using drawings helps connect the conceptual understanding of subtraction</b> Plus ungrouping first has less chances for errors subtract with 0's introduced early using methods in MX and using ungroup first – very successful and makes multi-digit sub less difficult Use drawings when at the board – kids don't need to on homework if they really get it, but if they are demonstrating they need to use drawings at the board also! Read 499-500				
4.13	Practice multiplications and divisions. Practice with Product Cards Practice with 6s, 7s, and 8s	SAB:243-244 SHC: 243-244 HR: 201-202	MP: 1,2,3,5,6 CC.3.NBT.2		
Lesson Focus	Subtract using two different methods.				
Formative	Ask students to explain two su	ubtraction methods-ungrouping	g from the left and ungroupin	g from the right. Students should be	

Assessment	able to explain the process of ungrouping to subtract.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Compare two subtraction methods – ungrouping from the left and ungrouping from the right. A2: Practice subtraction of 3-digit numbers.				
Notes	Read 413FF-413GG W	orking from left to right especially v	vhen you get to zeros is so mu	ich easier!!	
4.14	Practice multiplications and divisions.SAB: 245-246MP: 1,2,3,4,5,6,7,8Grouping, UngroupingPractice with Product Cards Practice with 2s, 5s, and 10sSHC: 245-246CC.3.NBT.2Math Mountain, Addend				
Lesson Focus	Relate grouping in addition and ungrouping in subtraction.				
Formative Assessment	Ask students to explain how addition and subtraction are related. Students should explain that one undoes the other. If the addend in an addition is subtracted from the sum, the result will be the other addend. The numbers in an addition and its related subtraction are the same. The proof drawings show the same numbers and the after grouping matches the before ungrouping and the before grouping matches the after ungrouping.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Analyze frequency tables and line plots. A2: Make a line plot using a set of data that includes fractions.				
Notes	Read 413FF-413HH Math mountains help conceptualize the relationship between the addition and subtraction Use math mountains to represent the relationship in word problems. By thinking about addition and subtraction in terms of a total and two parts, students can understand the relationship between addition and subtraction. Use blocks if having trouble with understanding This lesson can help with mental math standard Label the mountain may help with understanding word problems				
4.15	Practice multiplications and divisions.	SAB: 247-248 SHC: 247-248	MP: 3,6 CC.3.NBT.2		

	Practice with Product Cards Practice with 3s, 4s, and 9s	HR: 205-206			
Lesson Focus	Practice and discuss subtraction methods.				
Formative Assessment	Ask students to explain how they decide when to ungroup in a subtraction problem, and to give an example of a subtraction where all three places need to be ungrouped. Students should explain that when the number in the place they are subtracting is larger than the one they are subtracting from, they need to ungroup a larger place. An example where all three places need to be ungrouped is 345 – 299.				
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Solve and discuss subtraction word problems.				
Notes	Read 413II Word pro	blems help with subtraction practice	<ul> <li>it helps them understand the nu</li> </ul>	Imber relationships	
4.16	Practice multiplications an divisions. Practice with Product Care Practice with 6s, 7s, and 8	nd SAB: 249-250 SHC: 249-250 ds Lined paper Bs HR: 207-208 (student portfolio)	MP: 2,3,6,7 CC.3.NBT.2		
Lesson Focus	Practice and discuss addition and subtraction methods.				
Formative Assessment	Ask students how they could subtract 398 from 600 mentally. Students should suggest subtracting 400 from 600 and adding 2 to 200 for an answer of 202.				
I CAN	Instructional Strategies: Student Outcome: A1: Use Math Mountains to relate addition and subtraction.				

Learning Targets	A2: Create and solve addition and subtraction word problems.				
Notes	Read 413HH-413II				
4.17	Practice multiplications and divisions. Practice with Product Cards Practice with 6s, 7s, and 8s	SAB: 251-252 SHC: 251-252 HR: 209-210 Quick Quiz from lesson 18	MP: 1,3,4,5,6,7,8 CC.3.OA.8 CC.3.OA.9 CC.3.NBT.1 CC.3.NBT.2	Associative Property of Addition Commutative Property of Addition Identity Property of Addition	
Lesson Focus	Solve word problems that involve two or more steps and assess reasonableness.				
Formative Assessment	Write this problem on the board. Yvette had 18 mysteries and 15 biographies. Then she bought a group of 12 science fiction books. How many books does Yvette have now? Ask students to describe a strategy they would use to solve the problem. Students should be able to explain they would write the equation $18 + 15 + 12 = n$ . Next, use the commutative Property to switch the order of addends: $18 + 12 + 15 = n$ . Then use the Associate Property to group the numbers to make them easier to add.				
I CAN Learning Targets Notes	Instructional Strategies: Student Outcome: A1: Identify patterns and relate to addition properties. A2: Assess reasonableness of answers. Read 413II Understanding commutative property you might want to give use real world problems read p539 Addition table helps to see patterns				
	Quick Quiz 3 (found at the end of lesson 18) – 1 Day for reteaching				
Give quiz after teaching lesson 17 – then take this day to reteach/enrich per each quiz item.					

This quiz will allow you to see if initial learning took place. If it did not the extra day is spent to spend more time with only those students that need help on the specific items on the quiz, in order to be more successful for the next Big Idea. If kids are doing well, take the time to enrich using the Differentiated Cards, or other higher order thinking activities. This time spent on re-teaching or enrichment will allow for you to keep on pace with not over teaching to only a select few					
that may need help, it also allows for the enrichment for students who need more of a challenge to go deeper with their understanding. Designated stopping at					
	Found	d on OAISD Math Resources K-5 (Balanced A	ssessment Resouces) or Think Cen	r. tral	
4.18	If you would like to include Quick Practice with this lesson, use the Quick Practice provided in Lesson 1	SAB: 253-254 SHC: 253-254 Quick Quiz 3 but give after lesson 17 Fluency check HR: 211-212 (could be included in student portfolio)	MP: 1,2,3,4,5,6,7,8 CC.3.NBT.1 CC.3.NBT.2		
Lesson Focus	Use the Common Core Content Standards and Practices in a variety of real world problem solving situations.				
Formative Assessment	n/a				
I CAN	Instructional Strategies: Student Outcome:				
Learning Targets	A1: 1. Makes sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 4. Model with mathematics. 5. Use appropriate tools strategically.				
	A2: 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.				
	A3: 3. Construct a viable argument and critique the reasoning of others. 6. Attend to precision.				
Notes	Read 413II				
Unit4					

July 22, 2016

### **Balanced Assessment Resources and Protocols**

The balanced assessment is made up of 2 components: the current unit content (Unit test) and prior content at a varying depth of knowledge (Performance Task).

### Unit 4 Test and Review

Give All Students the Review Test A as a Pre-test at the END of the unit – then 2-3 days to reteach/enrich each test item Post-Test students that were identified as needing re-teaching to the specific test items to demonstrate proficiency This test will allow you to see if after initial learning took place, the student was able to retain the information. If it did not the extra day(s) is spent to allow for more time with only those students that need help on the specific items on the test, in order to be more successful for the next Unit. If kids are doing well, take the time to enrich using the Differentiated Cards, or other higher order thinking activities. This time spent on reteaching or enrichment will allow for you to keep on pace with not over teaching to only a select few that may need help, it also allows for the enrichment for students who need more of a challenge to go deeper with their understanding. Designated stopping at critical times helps eliminate unorganized re-teaching times during a lesson/activity.

### Performance Task

Use the **Unit 5 Performance Task** to incorporate the balanced assessment review of a higher depth of knowledge to check students understanding of the application of the prior unit's concepts and strategies.

This performance task might be taught as a whole group, small group or in pairs. The requirements of taking a task might still be new to students so you may want to take one day to both review the rubrics and strategies to thoroughly answer all parts of the task. The role of the teacher to facilitate the Math Talk will be a critical piece to having the students take ownership of their learning and ability to complete the Performance Task.

Found on OAISD Math Resources K-5 (Balanced Assessment Resources)