# MATH EXPRESSIONS CCSS GRADE 3- UNIT 2

Goals:

- Hardest facts in unit 2 are introduced
  - Start with count bys, diagrams to give multiplication meaning and connect symbols with words and equations.
  - $\circ$   $\;$  Then patterns, rules, strategies to help make the learning easier.
  - $\circ$   $\;$  Important to relate mult and div and learn them at the same time so it can reinforce each other.
  - Patterns and strategies mastering this material and fluency is time consuming because there are no general strategies
    - MUST look for patterns and strategies dependent upon specific numbers
    - EXTRA TIME AND SUPPORT must be provided if needed.
- Fluency Lessons used to reinforce facts learned and give more time to students who need to study a fact or review a strategy.
- Independent activities for those students that do not need extra teaching or practice (this would follow a check sheet that indicates the facts learned
  - $\circ$   $\;$  Go Ahead: Student pairs after complete check sheet move to the next fact
  - $\circ$   $\,$  Go for Speed: Student pairs Complete a check sheet and use the answer strip to correct
  - Invent a Game: Or play Solve the Stack or High Card Wins (Unit 1, lesson 13)
  - Write word problems, invent songs/rhymes/create posters
  - $\circ$   $\,$  Coach: If student achieved fluency they can help others
- 7s and 8's Strategies Distributive Property using area is foundation for grade 3
  - $\circ$  Start with a known count by and then count on (used in kinder and grade 1)
  - $\circ$   $\;$  Using a known multiplication and doubling
    - Try to use doubling- know doubling 3s, so 6x6 is 6x3 twice = 18 so 18+18=36
  - Combining two known multiplications
    - If cannot recall a fact, think about 2 multiplications they do know and add them together
  - Drawings to combine two know multiplications equal shares or area model
  - $\circ$   $\;$  Starting with a known count-by and adding on or subtracting from
    - Know 5x6 = 30, add 6 to get 36, so 6x6=36
- Patterns count bys, doubling of facts know makes proficiency easier- patterns help to understand an example or concept that might be difficult or new.
- Place value and properties: use properties to rearrange factors when mult. By 10
- Word problems: important to interpret the problem, represent it, solve, then check
  - $\circ$   $\,$  Drawings are conceptual, equations are symbolic using both together help explain each other  $\,$
- Variables: this starts the step to formal algebraic language by using a letter for the unknown quantity in expressions or equations for 1 and 2 step problems and use the order of operations use all symbols

#### Second Grade skills...

Mastered all add/sub within 20 Fluent in finding sums of 2-digit numbers Solves simple two step addition problems

Third Grade ...

Fluency means a mixture of knowing some answers from knowing other answers, knowing some answers from patterns, knowing some answers from the use of strategies.

We want all kids to learn all basic mult and div facts but it may be a struggle for some kids. Many kids get there at different times and ways.

Lesson 14 – start the basic facts check for all facts

All of the mult/div materials are ways to get in the fluency practice throughout the entire day for a total of 10 minutes. – The organized practice is key. Becoming fluent for each number, then more numbers then mixed numbers together – Organized practice focuses on understood facts but not yet fluent with speed

July 22, 2016

It is recommended to try to practice a daily time routine. If your students are fluent at telling time, you might eliminate the time routine and instead have students write the TIME at the top of their paper, next to their name. This could be done during any subject, or when entering or leaving the room. Daily practice telling the time is critical.

#### Time

(Use with Unit 5 Lessons 3-10.)

Materials: Time Poster and dry erase markers, pointer, Paper Clocks from Unit 5 Lesson 2

This routine reinforces time concepts and should be used every day in Unit S, starting with Lesson 3. This routine is intended to achieve the following goals: tell time to 5 minutes, show time on an analog clock, write the time on a digital clock, and link daily activities to times of the day.

Five Student Leaders lead this routine.

#### Model Time

Write 5, 10, 15, and so on around the outside of the clock on the Time Poster as shown. The class says the minute numbers as Student Leader 1 points to them.



Student Leader 2 draws hands to show a time to 5 minutes (for example, 4:45) on the Time Poster.



#### **Teaching Note**

When the Student Leader has positioned the hour and minute hands on the clock, look to see if the hour hand seems close to the correct position. For example, if the time is between 4:00 and 4:30, the hour hand should be less than halfway between 4 and 5 and if the time is between 4:30 and 5:00, the hour hand should be more than halfway between 4 and 5. If this is not the case, help the Student Leader to adjust the hour hand.

- Has the minute hand moved more or less than halfway around the clock? more
- Move the hour hand so that it is more than halfway between 4 and 5.

Then, Student Leader 3 gives a signal and the class will all together say the time shown on the clock.

Now, Student Leader 4 writes a digital time to 5 minutes. The children show the time by moving the two hands on their clocks. Once Student Leader 5 gives a signal, the children show their clocks.



#### A.M. and P.M.

Student Leader 5 then asks one or two classmates what they were doing at that time, for example, "What were you doing at 2:25 A.M.? Were you asleep?"

Today < > Oc	tober 2016			Day	Week	Month	5 Days	Agenda
Mon	Tue	Wed	Thu			Fri		
3	4	5	6			7		
Unit 1 Quiz 3 - Give at the END of	Reteaching Day - Small group in:							
10	44	10	12			14		
10	Unit 1 Quiz 4 - Give at the END of	Reteaching Day - Small group in:	Mathen	natical Pract	ice Lesson	Unit 1 Tes	tina Window	- Perforr
17	18	19	20	1-11-0		21		
Unit Tresting Window - Performa	nde Task, Optional Test Taking Jigsaw St	rategies	Begin C	Juit 2				
24	25	26	27			28		
31	Nov 1	2	3			4		
	Unit 2 Quiz 1 - Give at the END of	Reteaching Day - Small group ins						

Today X November 2016					Week	Month	5 Days	Agenda
Mon	Tue	Wed	Thu			Fri		
31	Nov 1	2	3			4		
	Unit 2 Quiz 1 - Give at the END of	Reteaching Day - Small group in:						
7	8	9	10			11		
14	15	16	17		18			
		Unit 2 Quiz 2 - Give at the END of	Reteaching Day - Small group in:		Mathematical Practice Lesson		Lesson	
21	22	23	24		25			
Unit 2 Testing Window - Performan								
28	29	30	Dec 1			2		
Begin Unit 3								

	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	9	2	2-3	13-14				
Total	98	18	14-21	130-137				

<b>GRADE 3</b> Math RtI for Unit 1&2 (addition subtraction)– 2.OA Grade 2 CCSS MX Teacher Edition					
Add numbers within 20 2.OA.2a Need this before Unit 1&2	Unit 1 Lesson 3 Activity 1&2 Unit 1 Lesson 4 Activity 1				
Addition and Subtraction Need this before Unit 1&2	Unit 1 Lesson 2 Math Mountain Cards (within 10) Unit 1 Lesson 5 Activity 2 Blue Math Mountain Cards (within 20) Unit 1 Lesson 7 Activity 1 Doubles				
Subtract numbers within 20 2.OA.2b Need this before Unit 1&2	Unit 1 Lesson 1 Activity 1				

Unit 2 Are you using math sense making about math structure using math drawings to support math explaining?								
Big Idea 1:	Big Idea 1: The Remaining Multiplications							
Lesson	Quick Practice	Materials	Common Core Standard/Practice	Words To Use				
2.1	Repeated Quick Practice 3s Multiplications in Order Mixed 3s Multiplications Mixed 3s Divisions	SAB: 89-92 SHC: 89-92 & AB: 69-70 (family Letter included) HR: 97-98	MP: 1,2,3,5,6,7 CC.3.OA.4, CC.3.OA.5, CC.3.OA.7, CC.3.OA.9					
Lesson Focus	Explore patterns in 6s count-bys multiplications, and divisions, and solve multiplication problems.							
Formative Assessment	<ul> <li>Ask students to describe a strategy they can use to find a 6s multiplication they don't know. Students may describe starting</li> <li>with 5 x6 and counting on or adding on to the fact before, doubling a 3s multiplication, or combining two multiplications they know.</li> </ul>							
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Explore patterns in 6s count-bys, multiplications, and divisions. A2: Discuss strategies for finding 6 x 6, 6 x 7, and 6 x 8.							
Notes	Notes Read 173BB-FF, 173HH-II Activity 1 – gets all kids to tell what they know PATTERNS- pay close attention MAKE sure kids understand that division IS NOT commutative When one number is a count-by of a second number the first number is divisible by the second (2,4,6,8 are all divisible by 2). Kids need to know when a number is divisible by another. Rules for a whole number is divisible by: 2 if its one digit is even, 3 if the sum of its digits is divisible by 3, 4 if the number formed by the tens digit and the ones digit is divisible by 4, 5 if its ones digit si 0 or 5, 8 if the number formed by its hundreds, tens, and ones digit is divisible by 8, 9 if the sum of its digits is divisible by 9, 10 if its ones digit is 0 During this activity you will discover that every 6s count-by is an even number and is also a 3s count by – which is another divisibility rule, a whole number is divisible by 6 if it is divisible by 2 and $3 - make a tens number is a useful strategy for students because they know how to do this since kinder (TE179)$							

2.2	Repeated Quick Practice 6s Multiplications in Order Mixed 6s Multiplications Mixed 6s Divisions	SAB: 93-98 SHC: 93-98 & AB: 71-72 (includes fluency sheets) HR: 99-102 (could be includ in student portfolio)	MP: 2,3,4,5,6 CC.3.OA.1, CC.3. CC.3.OA.4, CC.3. ded CC.3.MD.5a, CC.3 CC.3.MD.7b	OA.2, CC.3.OA.3, OA.6, CC.3.OA.7, 3.MD.5b, CC.3.MD.7a,	Length, width, area, Fast Area Drawing		
Focus	Develop strategies for solvi						
Formative Assessment	Ask students to describe two units or multiplying the leng	o ways to find the area of a th and width as ways to fight	a rectangle. Students and the area of a recta	should describe tiling t ngle.	the rectangle with square		
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice 6s count-bys, multiplications, and divisions. A2: Solve Unknown Number puzzles. A3: Find the area of a rectangle by tiling and solve area word problems.						
Notes	Read 173BB-FF, 173JJ Puzzles - Looking for the relationship of the factors and how they meet to form a product. Use counters if this is difficult – and continue to make more equal groups until they reach the larger number. <b>Finding unknown factors will expand students understanding of relationships between multiplication and division</b> . Make sure you mathematize the word problems – take out the "story words" and replace with math labels.						
2.3	Repeated Quick Practice 6s Multiplications in Order Mixed 6s Multiplications Mixed 6s Divisions	SAB: 99-102 SHC: 99-102 & AB: 73-74 (includes fluency sheets) HR: 103-106	MP: 2,3,5,6,7 CC.3.OA.4, C.3.OA.6, C.3.OA.7, CC.3.OA.9	Fast-Array Drawing			
Lesson Focus	Explore patterns in 8s count	bys, multiplications, and o	divisions, and solve m	ultiplication problems.			
Formative Assessment	Ask students to describe a so x 8 and then counting by 8s behind, subtracting from the	trategy they could use to fi from 40, combining two fa e fact ahead or using the C	ind 9 x 8 if they do no cts they know, doubli ommutative Property	t recall it. Students sho ng a 4s multiplication, of Multiplication to ch	ould describe starting with 5 adding on to the fact neck if they know 8 x 9.		

I CAN Learning Targets Notes	Instructional Strategies: Student Outcome: A1: Practice 6s count-bys, and divisions. A2: Explore patterns in 8s count-bys, multiplications, and divisions. A3: Discuss strategies for finding 8s multiplications and divisions. Read 173BB-FF, 173HH-JJ Patterns in 8s – in general for any whole number N: N x 8 = N tens – (2xN) ones (TE 195) Important to let kids see many different drawings to get to the answer, Make a ten strategy is great! 56+8 = 56 plus 4 to get to 60 and then add 4 more to make 64. – it might sound like a lot of words but it is very powerful!						
2.4	Repeated Quick Practice 8s Multiplications in Order Mixed 8s Multiplications Mixed 8s Divisions	SAB: 103-106 SHC: 103-106 & AB: 75-76 HR: 107-108	MP: 1,3,5,6 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7	Array problem, eq problem	ual groups problem, area		
Lesson Focus	Write multiplication and divis	Write multiplication and division word problmes of various types.					
Formative Assessment	Ask students to describe how they know multiplication is the operation to use to solve a problem. Students should describe that when the problem involves finding the total of equal groups, columns, rows, or area, you multiply.						
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multip A2: Solve word problems, ider	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Solve word problems, identify types of word problems, and write word problems.					
Notes	Read 173BB-FF, 173JJ Make sure kids are understanding the difference between signs +/x and introduce new signs if they are only using the x for multiplication – it could confuse them with the variable x. If kids struggle with writing word problems, have them write the math words first, then add in the story parts						
2.5	Repeated Quick Practice 8s Multiplications in Order Mixed 8s Multiplications Mixed 8s Divisions	SAB: 107-108 SHC: 107-108 HR: 109-112 (could be includ in student portfolio)	MP: 2,3,5,6,7 CC.3.OA.4, CC.3.OA.6, C ded CC.3.OA.9	CC.3.OA.7,			
Lesson Focus	Explore patterns in 7s count-l	bys, multiplications, and d	visions and solve word pro	oblems.			

July 22, 2016

Formative Assessment	Ask students to describe how to find the answer to $42 \div 7$ . Students should describe using a related Fast Array or related multiplication ( x 7 = 42, = 6).						
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Explore patterns in 7s count-bys, multiplications, and divisions. A3: Find the unknown numbers in Fast Array drawings.						
Notes	Read 173BB-FF 5s Short cut needs to be practiced a lot until they understand how to count on from the 5 multiplication problem before they use it 7x7= 7x5 (hold up 5) = 35 then count on 7 more to 42 and 7 more to 49. Again Make a ten strategy is helpful with 7s						
2.6	5s Shortcut	SAB: 109-112 SHC: 109-112 & AB: 77-78 (includes fluency sheets) HR: 113-116	MP: 2,3,4,5,6 CC.3.OA.3, CC.3.OA.6, CC.3.OA.7, CC.3.OA.9, CC.3.MD.7b	Square number			
Lesson Focus	Understand what a square number is and describe square number patterns in the multiplication table.						
Formative Assessment	Ask students to give an example of a square number and tell why it is a square number. For example, 16 is a square number because it has two factors that are the same: 4.						
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Explore square numbers.						
Notes	Read 173BB-FF, 173II Patterns are HUGE! Have kids really try to find them, and make connections It might be a good place to see how well they know their related division facts – and figure out why there are fewer related division facts with square numbers.						
2.7	5s Shortcut	SAB: 113-118 SHC: 113-118 & AB: 79-82 (includes fluency sheets) HR: 117-120	MP: 1,4,5,6 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7				

Lesson Focus	Practice 6s, 7s, and 8s multiplication and divisions.						
Formative Assessment	Ask students when they know a word problem can be solved by division. Students should describe that when a word problem involves a total and one of the following needs to be found-the number of groups, the size of the groups, the number of columns or rows, or the side length of a square- then the problem can be solved by division.						
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Use remaining Strategy Cards and play a game. A3: Write equations and solve word problems with 6s, 7s, and 8s.						
Notes	Read 173BB-FF Word prob	Read 173BB-FF Word problems help you to see if students understand the meaning of multiplication and division.					
2.8 Could take 2 days	5s Shortcut	SAB: 119-126 SHC: 119-126 & AB: 83-90 (includes fluency sheets) HR: 121-122 Quick Quiz 1	MP: 2,3,5,6 CC.3.OA.4, CC.3.OA.5, CC.3.OA.6, CC.3.OA.7, CC.3.OA.9, CC.3.MD.7b				
Lesson Focus	Build fluency with 0s, 1s, 2s, S	3s, 4s, 5s, 6s, 7s, 8s, 9s, an	d 10s multiplication and d	livisions.			
Formative Assessment	Ask Students what strategy they use to memorize a multiplication they do not recall. Allow student to share their methods.						
I CAN Learning Targets Notes	Instructional Strategies: Student Outcome: A1: Complete a Multiplication Table A2: Fluently multiply and divide with 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, and 10s. A3: Complete Scrambled Multiplication Tables. (OPTIONAL) Read 173BB-FF, 173GG Scan an entire column at a time until you can recognize the products for the factors.						

July 22, 2016

#### Suggest using REVISED QUIZ 1

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

Give quiz after teaching lesson 8 – 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 Resources)

#### Big Idea 2: Problem Solving and Multiples of 10

2.9 Maybe 2 days	5s Shortcut	SAB: 127-130 SHC: 127-130 HR: 123-124 (could be included in student portfolio)	MP: 1,3,4,5,6 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7, CC.3.OA.8			
Lesson Focus	Represent and solve word problems using the four operations.					
Formative Assessment	Ask students to describe how they would begin to write a word problem for the equation 42 ÷ 6 = n. Students should describe a situation that has a total of 42 objects that can be divided into groups of 6 or into 6 groups.					
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-by: A2: Discuss how to de A3: Use the "informat A4: Write word proble	s, multiplications, and divi termine which operation tion part" of a word proble tems for given equations.	sions. to use to solve a word problem. em to write an appropriate "question part."			

Notes	Read 173BB-FF The next lessons focus on word problems, so you might want to spend extra time to make sure they understand these problems!! Each problem involves one operation, and kids must reason about the situation and the language to determine which operation to use. In Lesson 10 and 11 there are two operations (just a heads up) - Work on mathematizing word problems to get rid of the story parts to help figure out what the problem is having you do. Situation vs Solution – make sure you help kids to understand the difference. Also do not get stuck knowing key words – you need to understand the complete problem. Remember comparison problems – you record in a bar the bigger number and smaller number and you are trying to figure out how to make the bars the same size. Writing word problems helps kids to make sense of problems when they are solving already made word problems.						
2.10	Mixed Multiplications Mixed Divisions	SAB: 131-134 SHC: 131-134 & AB: 77-78 (fluency sheets) HR: 125-126	MP: 1,3,5,6,8 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7, CC.3.OA.8	Expression, evaluate			
Lesson Focus	Develop strategies for solving two step word problems.						
Formative Assessment	Ask students to write a two step problem and tell what question they would need to answer first.						
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Use the Order of Operations to write and evaluate expressions. A3: Write and solve first step questions for two step word problems						
Notes	Read 173BB-FF, 173JJ Make sure to understand rules for order of operations and add before multiplying. Kids are not tested on order of operations, but it is useful to explain what they are doing when they are recording steps for word problems. It might help to write each step on a new line, instead of on a single line.						
2.11	Mixed Multiplications Mixed Divisions	SAB: 135-136 SHC: 135-136 & AB: 77-78 (fluency sheets) HR: 127-128 (could be inclu student portfolio)	MP: 1,3,4,5,6 CC.3.OA.1, CC.3.OA.2, CC. CC.3.OA.4, CC.3.OA.6, CC. ded in CC.3.OA.8	3.OA.3, 3.OA.7,			

Lesson Focus	Develop strategies for solving two step word problems.						
Formative Assessment	Ask students to describe describe the rules for the	Ask students to describe the rules they need to follow when solving an equation for a two step problem. Students should describe the rules for the Order of Operations.					
I CAN Learning Targets	nstructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Discuss and solve two step word problems.						
Notes	Read 173BB-FF, 173JJ Lc	ots of practice with 2 step wo	rd problems – allow for ma	ny ways to solve			
2.12	Mixed Multiplications Mixed Divisions	SAB: 137-138 SHC: 137-138 (fluency sheets) HR: 129-130	MP: 3,5,6,8 CC.3.OA.5, CC.3.OA.6, CC.3.OA.7, CC.3.NBT.3	Multiple			
Lesson Focus	Use place value and prop	perties to multiply one digit r	numbers by multiples of 10	).			
Formative Assessment	Ask students to explain h they can use place value then multiplying by 10 m	now they can use a multiplica and properties to find the pr nentally	ation strategy to find the a roduct or they may explain	nswer to 7 x 40. Students may explain that how to find it using a basic multiplication and			
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: Practice multiplications and divisions. A2: Develop strategies for multiplying a one digit number by multiples of 10.						
Notes	Read 173BB-FF, 173II WRONG LANGUAGE) ca	Rearrange factors so that we areful of 5x2 or 5x4, sometime	e can multiply the product on a could be forgotten.	of a basic fact by 10 (NOT ADDING 2 ZEROS –			

2 1 2	Mixed Multiplications	SAB: 139-148, 149A-149J	MP: 1,2,3,4,5,6			
2.15	Mixed Divisions	SHC: 139-148 & AB: 91-110	CC.3.OA.1, CC.3.OA.2, CC.3.OA.3,			
2 days		(includes project cards)	CC.3.OA.4, CC.3.OA.6, CC.3.OA.7, CC.3.OA.8			
,		HR: 131-142 (could be				
		Included in student portfolio)		L		
Lesson	Use strategies to fluently multiply and divide within 100 and solve two step word problems.					
Focus						
Formative	Ask students to choose one of the function tables on Student Book page 146 and to explain how they determined the rule					
Assessment	they used to complete the table.					
Assessment						
	Instructional Strategies: Student Outcome:					
I CAN						
Learning	A1: Practice count-bys, multiplications, and divisions.					
Targets	A2: Use strategies to represent and solve two step word problems.					
<u> </u>	A3: Play games to practice multiplications and divisions and to build fluency.					
Notes	Read 173BB-FF, 173HH-II you might need to continue to practice mult/div fluency during the entire year Activity 2 – may					
	need to review how to find area and what area is – the area of a figure is the number of square units needed to cover it without					
	overlapping – remind how to mult. The length and width of a rectangle to find the area. These are great games you can use					
	during the mastery loop at quiz or test times as centers.					
_	Mixed Multiplications	SAB: 149-152	MP: 1,3,5,6,8			
2.14	Mixed Divisions	SHC: 149-152 & AB: 111-112	CC.3.OA.1, CC.3.OA.2, CC.3.OA.3,			
		HR: 143-144	CC.3.OA.4, CC.3.OA.6, CC.3.OA.7,			
		Quick Quiz from lesson 15	CC.3.OA.8			
Lesson	Build fluency with 0s, 1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, and 10s multiplication and divisions.					
Focus						
Formative	Ask students to write a basic multiplication fact and use their knowledge of patterns to explain how they know their answer is correct.					
Assessment						
, isocosment						
	Instructional Strategies:					
I CAN	Student Outcome:					
Learning	A1: Assess recall of basic multiplications and divisions.					

Targets	A2: Find and describe patterns in the multiplication table.				
Notes	Read 173BB-GG Common error- mult a number by 1 the result or product is that number – some get this confused with addition of 1 Same with 0 – some get it confuse with adding 0 and instead when mult any number by 0 the product is 0. Same with division, Remind kids that divisor can not be 0 because division by 0 is not meaningful Relate this back to multiplication to really understand concept. – so be careful of the order when one number is 0 review patterns in 9s – county by is equal to a multiple of 10 minus the number of the count by in the pattern. This is a good place to build understanding of products – model with kids acting out how the product of an odd and even number is always even.				
Suggest using REVISED QUIZ 2					
Quick Quiz 2 (found at the end of lesson 15) – 1 Day <u>for</u> reteaching					
Give quiz after teaching lesson 14 – then take this day to reteach/enrich per each quiz item.					
	Found on OAISD Math Resources k	K-5 (Balanced Assessment Resources)			
2.15	SAB: 153-154 SHC: 153-154 HR: 145-146 (could be included in student portfolio)	MP: 1,2,3,4,5,6,7,8 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.5, CC.3.OA.7, CC.3.OA.9			
Lesson Focus	Use the Common Core Standards and Practices in a variety of real world problem solving situations.				
Formative Assessment					
I CAN Learning Targets	Instructional Strategies: Student Outcome: A1: 1-Make sense of problems and persevere in solving them. 2-Reason abstractly and quantitatively. 4-Model with mathematics. 5- Use appropriate tools strategically. 7-Look for and make use of structure. 8-Look for and express regularity in repeated reasoning. A2: 7-Look for and make use of structure. 8-Look for and express regularity in repeated reasoning. A3: 3-Construct viable arguments and critique the reasoning of others. 6-Attend to precision.				
Notes	Read 173KK				

July 22, 2016

#### **Unit 2 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 2 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 1 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)

Math Rtl For Grade 3 Grade 2 CCSS MX Teacher Edition				
Identify numbers to 1,000 2.NBT.3 Need this before Unit 4	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 Need this before Unit 4	Unit 2 Lesson 4 Activity 3 Add 1, 10, 100 to a number			
Compare numbers to 1,000 2.NBT.4 Need this before Unit 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 - found in Unit 1-2- Essential for Grade 4				
Grade 3 CCSS MX Teacher Edition				
Multiply numbers from 0-10 3.OA.7a	Unit 1 Lesson 1 All Activities Unit 1 Lesson 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			