

MATH EXPRESSIONS CCSS GRADE 3- UNIT 1

Goals:

PLEASE NOTE THE UPDATED UNIT 1 QUIZZES 1&2 found online

Read - TE 1GG important to read

- If memorization happens too fast, it can lead to forgetting or memorizing wrong. UNDERSTANDING gives opportunities to having strategies to rely on. Automaticity happens when one is efficient with implementing learned strategies – PLEASE make sure kids understand concepts, properties, & vocab
- Homework is CRUCIAL in this grade!! Practicing to become fluent is an important part of homework
- Multiplication and Division CORE CONCEPT and are inverse operations
- STUDENTS WILL LEARN TO USE AND UNDERSTAND THE LANGUAGE TO DESCRIBE THE CONCEPTS AND SITUATIONS OF MULT AND DIV
- LEARN mult/div by finding patterns for the count-bys
- Learn how to find products they know to find products they don't know
- Study mult and div together because division is just finding an unknown factor
- Allow kids to find the patterns and other thinking strategies makes mult. Easier
- KIDS SET GOALS and test to reach the goals
- Learn the mult/div strategies and how they are related and how to use math DRAWINGS and EQUATIONS to represent word problems
- Easiest to hardest facts 5, 2, 9, 10, 3, 4, 1, 0 (Unit 2 study facts 6, 7, 8)
- First learn count bys with DIAGRAMS to give the mult meaning and connect symbols with words and equations. Next look for patterns rules or strategies. Then practice and check fluency
- Study ONE FACT at a time (study, practice, check recall)
- Signature sheets – place to record what's been mastered. Check Sheets – lesson 5,8,9,12,17
- Studying facts must be designed on a process that heavily involves practice and reasoning
- Fluency lessons are included to reinforce facts learned, give more time to practice/learn facts, or review facts (lesson 6,9,14,18)
- Independent activities are for kids who do not need extra teaching

Second Grade skills...

Mastered all add/sub within 20
Fluent in finding sums of 2-digit numbers

Third Grade...

Use properties and patterns to multiply and divide within 100.
Work towards fluency with finding products and quotients.
VISUAL MODELS!!
FOCUS ON UNDERSTANDING THE MEANING AND PROPERTIES OF MULT/DIV

PATH TO FLUENCY

--study plans

--practice charts

--study sheets

First become fluent with each number and then extend to other numbers

Practice charts in lessons

1,5,7,8,10,12,15

--practice is built into program – done at home, and school each day – use check-ups to record any unknowns, record on signature sheet if all correct

- DASH are 20 mult/div in mixed up order – this is for SPEED and ACCURACY

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It is recommended to try to practice a daily time routine. Something as simple as having students write the time at the top of their page, or you might incorporate parts of the second grade Time routine shown below.

Time

(Use with Unit 5 Lessons 3–10.)

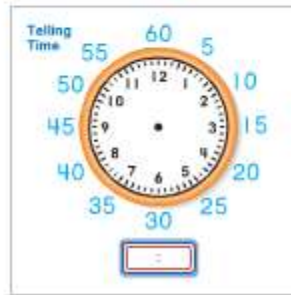
Materials: Time Poster and dry erase markers, pointer, Paper Clocks from Unit 5 Lesson 2

This routine reinforces time concepts and should be used every day in Unit 5, 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.

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September 2016

Day Week Month 4 Days Age

Mon	Tue	Wed	Thu	Fri
29	30	31	Sep 1	2
5 Labor Day	6 Begin Unit 1	7	8	9
12	13	14	15 Unit 1 Quiz 1 - Give at the	16 Reteaching Day - Small gr
19	20	21	22 Unit 1 Quiz 2 - Give at the	23 Reteaching Day - Small gr

Today < > October 2016

Day Week Month 4 Days Agenda More ▾ ⚙ ▾

Mon	Tue	Wed	Thu	Fri
3 Unit 1 Quiz 3 - Give at the END of the m	4 Reteaching Day - Small group instructi	5	6	7
10 Columbus Day (regional holiday)	11 Unit 1 Quiz 4 - Give at the END of the m	12 Reteaching Day - Small group instructi	13 Mathematical Practice Lesson	14 Unit 1 Testing Window - Performanc
17 Unit 1 Testing Window - Performance Task, Optional Test Taking Jigsaw Strategies	18	19	20 Begin Unit 2	21

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Grade 3 Pacing at a Glance				
Unit	1 day for each Lessons Some special cases where lessons take more than one day are accounted for and are shown in the detailed pacing guide	1 day for each 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	131-138

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Math RtI for Unit 1&2 (addition subtraction)– 2.OA Grade 2 CCSS MX Teacher Edition	
Add numbers within 20 2.OA.2a	Unit 1 Lesson 3 Activity 1&2 Unit 1 Lesson 4 Activity 1
Addition and Subtraction	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	Unit 1 Lesson 1 Activity 1

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Unit 1				
Big Idea 1: Meanings of Multiplication and Division: 5s and 2s				
Lesson	Quick Practice	Materials	Common Core Standard/ Practice	Vocabulary
1.1	Will begin in Lesson 2	SAB: 1-6 (family letter) SHC: 1-6, AWB: 1-4 HR: 1-4	MP:2,3,4,5,6,8 CC.3.OA.1, CC.3.OA.4, CC.3.OA.7, CC.3.OA.9	Count-by, equation, product, multiplier, multiples, factor, multiplication
Lesson Focus	Identify and use patterns to multiply with 5.			
Formative Assessment	Ask students to explain how they can use multiplication to find the total of $5+5+5+5+5+5+5$. Students should give the equation $7 \times 5 = 35$.			
I CAN... Learning Targets	Instructional Strategies: <i>i.e. I will connect symbols and vocab in the equation, by being precise with the structure using manipulatives and repeated reasoning.</i> Student Outcome: <i>i.e. Explain using 5's how addition and multiplication are connected.</i> A1: Explore patterns in 5s count-bys and multiplications. A2: Practice 5s multiplications and count-bys. – please do the kinesthetic technique suggested!! A3: Introduce the home practice routine.			
Notes	Read 1EE-1II, 1KK- 1LL, Path To Fluency, Class management p.2 Teaching note p.3 Identify and explain patterns (circle sequential groups and write the sequential totals) REALLY focus on understanding $3 \times 5 = 15$ that 3 (first factor) is how many groups, and 5 is the group size – 3 groups of 5... Circle the group size when discussing this. VOCAB is HUGE! Kids and teachers should use the terms frequently Number Line – jumps on number line are great to show repeated addition. Use graph paper to understand rows and columns. If pictures are difficult use counters then go to drawings to help see and understand patterns			

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1.2	Mixed 5s Multiplications	SAB: 7-10 SHC: 7-10 HR: 5-6 could be included in student portfolios	MP: 2,3,4,6,7 CC.3.OA.1, CC.3.OA.3, CC.3.OA.7	Equal groups, in each, in every, per, Equal Shares drawing, function table
Lesson Focus	Use multiplication and drawings to represent equal group situations.			
Formative Assessment	Ask students to explain when an Equal Shares drawing is faster to make than an Equal Groups drawing. Students should explain that an Equal Shares drawing is faster when there are many things in each group.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Write multi equation for equal groups pictures. A2: Make drawings to help solve equal groups in word problems. A3: Make equal shares drawings to represent equal groups.			
Notes	Read 1EE-1II, 1MM Encourage math talk by having students leading the quick practice or using solve and discuss Relationship between mult/div help see that div is the same as finding an unknown factor in a mult situation, Drawings – equal shares, Equal groups and Fast arrays represent known and unknown factors and produces in conceptual format to write equations and solve problems Make sure your language reflects your drawings (2x5 is 2 groups of 5, 5x2 is 5 groups of 2) – use counters if drawings are too abstract Functions need to be reviewed (a table of ordered pairs that follow a rule – see if kids can come up with definition by figuring out a rule to a table first)			
1.3	Mixed 5s Multiplications	SAB: 11-22 SHC: 11-22 HR: 7-10	MP: 1,2,3,4,5,7 CC.3.OA.1, CC.3.OA.3, CC.3.OA.5, CC.3.OA.7	Array, row, column, Commutative Property of Multiplication
Lesson Focus	Use multiplication and drawings to represent array situations and the Commutative Property.			

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Formative Assessment	Ask students to explain why switching the order of the factors in a multiplication equation does not change the product. Students should use arrays to show that order of the factors does not change the product			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Introduce the Signature and Study Sheets and Check Up procedures. (class management p20 helps explain) A2: Write multiplication equations for arrays and solve word problems involving arrays. A3: Apply the Commutative Property as a strategy to multiply.			
Notes	Read 1EE-1II, 1KK-1MM MUST KNOW PROPERTIES!!! Use the correct mathematical language to explain what you are doing. Activity 3 is all about commutative property (helps with changing problems into easier ones to solve – talk about ways this will help so kids can relate or use them more often and know what they are doing) – lesson 15 associative, identity, & zero properties are practiced Important to show drawing, and equations and correct language – SAB20&21. Circle the row to show its a group and where that number is in the equation Arrays show that multiplication is commutative, then connect this to area model. If trouble understanding arrays use connecting cubes (these help with repeated addition too)			
1.4	5s Multiplications in Order	SAB: 23-26 SHC: 23-26 HR: 11-14	MP: 1,3,4,5,6,7 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7	Division, dividend, divisor, quotient
Lesson Focus	Relate division to multiplication with an unknown factor.			
Formative Assessment	Ask students what multiplication with an unknown number they can write to find $20 \div 5 = \square$. Students should write $\square \times 5 = 20$ and give the answer of 4.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys and multiplications. A2: Solve division word problems in which the number of groups is unknown.			

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	A3: Solve division word problems in which the group size is unknown.			
Notes	<p>Read 1EE-1II, 1MM VOCAB!!! KEY division undoes multiplication (just like subtraction undoes addition – model with add/sub to connect mult/div)</p> <p>Use connecting cubes if equation is too abstract – connect total, give them desired group number, they break apart to solve for the group size. Focus on correct language, drawings, movements of placing numbers – LABEL everything – this helps understand how they connect. Penguin Page – FOCUS on having kids say correct vocab when they explain the math concepts. Using fingers – make sure they know the answer to the equation is how many fingers they have up as they count</p> <p>Language is so important, give lots of examples and use drawings with labels often</p>			
1.5	Mixed 5s Divisions Mixed 5s Multiplications	SAB: 27-30 SHC: 27-30 HR: 15-20	MP: 1,2,3,4,5,6,7,9 CC.3.OA.1, CC.3.OA.2, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7, CC.3.OA.9	Multiplier, situation equation, solution equation, pictograph, even number, odd number
Lesson Focus	Identify patterns in 2s count-bys and multiplications and relate multiplication and division.			
Formative Assessment	Ask students to describe any patterns found in the 2s count-bys and multiplications and to explain how these patterns can help them when multiplying. Students may describe that the count-bys skip a number between and that all products of 2s are even. So if a product of 2 is odd, they know they need to find their error and correct it.			
I CAN... Learning Targets	<p>Instructional Strategies:</p> <p>Student Outcome:</p> <p>A1: Practice 5s count-bys and multiplications.</p> <p>A2: Explore patterns in 2s count-bys and multiplications.</p> <p>A3: Practice 5s and 2s multiplications and divisions using a Check Sheet.</p>			
Notes	<p>Read 1EE-1II, 1KK-1LL Use number lines for these activities to show the repeated “jumps” (+ for mult, - for div)</p> <p>Connect words and movements and equation numbers and symbols – this helps find patterns – use cubes if too abstract</p> <p>Remind kids about the key on a graph</p>			
1.6	Mixed 2s Multiplications	SAB: 31-32 SHC: 31-32 HR: 21-22	MP: 1,3,4,5,6,7 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4,	Column, row, factor, product

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2 days			CC.3.OA.5, CC.3.OA.6, CC.3.OA.7, CC.3.OA.9	
Lesson Focus	Build fluency with 2s and 5s multiplications and divisions.			
Formative Assessment	Ask students to name the other multiplications and divisions they know if they know that $7 \times 2 = 14$. Students should name $2 \times 7 = 14$, $14 \div 7 = 2$, $14 \div 2 = 7$			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Use individualized activities for building fluency. A2: Use a target to practice multiplications and divisions and see inverse and commutative relationships. A3: Write equations to solve word problems involving multiplication and division.			
Notes	Read 1EE-1II, 1JJ Use Targets with mult table to practice mult/div studied so far and to see inverse and commutative relationship. Cover the Target circle, kids can check on whether they know the product for 2 factors, by covering one end of the target they can check on a related division Targets help to review the commutative and inverse relationships			
<div><p><u>Suggest using REVISED QUIZ 1</u></p><p>Quick Quiz 1 – 1 Day <u>for</u> reteaching</p><p>Give quiz after teaching lesson 6 – then take this day to reteach/enrich per each quiz item.</p><p><i>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.</i></p><p>Found on OAISD Math Resources K-5 (Balanced Assessment Resources)</p></div>				
Big Idea 2: Patterns and Strategies: 9s and 10s				

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1.7	2s Multiplications in Order Mixed 2s Multiplications Mixed 2s Divisions	SAB: 33-36 SHC: 33-36 HR: 23-26	MP: 1,2,3,5,6,7,8 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7	Equation, variable
Lesson Focus	Explore patterns in 10s count-bys, multiplications, and divisions and represent and solve problems involving multiplication and division with 10.			
Formative Assessment	Ask students to explain how they know a number is a 10s count-by and give an example. Students should explain that any number that is a 10s count-by will end in 0. Example: 90 is a 10s count-by because it ends in 0.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Explore patterns in 10s count-bys, multiplications, and divisions. A3: Practice 10s multiplications and divisions and solve 10s word problems. A4: Write equations with variables for word problems.			
Notes	Read 1EE-1II, 1KK-1LL PLEASE always continue to do the drawings and go the extra step to circle the group size (kids don't have to, but you really should) Use base ten blocks if drawings are difficult for kids (for the 10s multiplication)			
1.8	2s Multiplications in Order Mixed 2s Multiplications Mixed 2s Divisions	SAB: 37-40 SHC: 37-40 HR: 27-32	MP: 2,3,4,5,6,7,8 CC.3.OA.1, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7, CC.3.OA.9	Quick 9s, multiplier finger
Lesson Focus	Identify patterns in 9s multiplications and divisions and learn a strategy for quickly multiplying and dividing with 9s.			
Formative Assessment	Ask students to explain how to find the product 4×9 using a 10s multiplication and using the Quick 9s method.			

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I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Explore patterns in 9s count-bys and use them to multiply with 9. A3: Explore patterns in 9s divisions.			
Notes	Read 1EE-1II, 1KK-1LL Use connecting cubes to help see relationship between 10s and 9s (distributive property) then show fingers –quick 9s. Kids really need to describe the patterns they see in their own words, but encourage math language when opportunity arises.			
1.9 2 days	2s Multiplications in Order Mixed 2s Multiplications Mixed 2s Divisions	SAB: 41-44 SHC: 41-44 HR: 33-36 HW 35 could be included in student portfolio	MP: 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	Fast Array drawing
Lesson Focus	Build fluency with 2s, 5s, 9s, and 10s multiplications and divisions.			
Formative Assessment	Ask students to explain how a Fast Array drawing can be used to solve a division problem. Students should explain how to use a related multiplication or division using the Fast Array drawing for the numbers to solve a division			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Solve multiplication and division word problems.			
Notes	Read 1EE-1II, 1JJ, 1MM Relate equal groups and array situations. Show lots of drawings, and solutions. BUT equal shares and fast array drawings help kids understand operations and lead to more efficient computation methods			

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Suggest using REVISED QUIZ 2

Quick Quiz 2 – 1 Day for reteaching

Give quiz after teaching lesson 9 – 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 3: Strategies for Factors and Products: 3s and 4s

1.10	9s Multiplications in Order Mixed 9s Multiplications Mixed 9s Divisions	SAB: 45-48 SHC: 45-48 HR: 37-40	MP: 1,2,3,5,6,7,8 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.9	Product, multiplier, commutative, divisor
Lesson Focus	Look for patterns in practice 3s count-bys, multiplications, and divisions, and learn a new strategy for finding products for multipliers greater than 5.			
Formative Assessment	Ask students to explain the different strategies they can use to find 9×3 . Some strategies students may describe are skip counting, using fingers, and using the 5s shortcut.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice 3s county-bys, multiplications, and divisions. A2: Explore patterns in 3s count-bys, multiplications, and divisions. A3: Use the 5s shortcut.			
Notes	Read 1EE-1II, 1KK-1LL			

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	Focus is still on the connection of symbols and words, and looking for patterns – especially the relationship of mult and div			
1.11	9s Multiplications in Order Mixed 9s Multiplications Mixed 9s Divisions	SAB: 49-52 SHC: 49-52 HR: 41-70	MP: 2,3,4,6,7 CC.3.OA.1, CC.3.OA.3, CC.3.OA.7	Area, array, Distributive Property
Lesson Focus	Use the area model for multiplications.			
Formative Assessment	Ask students to explain different ways they can find the area of a rectangle that is 6 rows by 4 columns. Students may describe counting square units in the rectangle, multiplying the side lengths, or separating the rectangle into two smaller rectangles and adding the areas of the smaller rectangles.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Introduce Strategy Cards. A3: Write multiplication equations to represent areas of rectangles. A4: Use that area model and Distributive Property to develop a multiplication strategy.			
Notes	Read: 1EE-1II, 1KK-1LL Strategy cards are used to practice mult/div. Sort into piles (know quickly, know slowly, don't know) Get faster at ones you know, add don't know cards in slowly Drawings of the area of the rectangle are now discussed, and will help understand the distributive property (when you break the 1 rectangle into 2 parts) – this is setting the scene for multi-digit multiplication – PLEASE use drawings (or objects) and real word situations to help kids relate what you are doing with the language and movements of then numbers and symbols Encourage kids to multiplication instead of counting all the squares in the rectangle area			
1.12	3s Multiplications in Order Mixed 3s Multiplications Mixed 3s Divisions	SAB: 53-58 SHC: 53-58 HR: 71-76 75 – portfolio page	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.6, CC.3.OA.7, CC.3.OA.9, CC.3.MD.7b, CC.3.MD.7c	Repeated addition, multiplication, Equal Shares drawing, product, multiplier

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Lesson Focus	Look for patterns in 4s multiplications and count-bys, and learn a strategy for finding 4s count-bys, and solve problems involving 4s.			
Formative Assessment	Ask students to explain how they can use the answers to 2×4 and 6×4 to find the answer to 8×4 . Students should make an 8×4 rectangle and decompose it to explain why this can be done.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Explore patterns in 4s count-bys, multiplications, and divisions. A3: Use a shortcut for finding 4s count-bys and solving 4s multiplication problems.			
Notes	Read 1EE-1II, 1KK-1LL Help kids use known facts to find unknown facts ($3 \times 4 = 12$ so $6 \times 4 = 24$) – Mult by 4 is same as mult by 2 then double the answer			
1.13	4s Multiplications in Order Mixed 4s Multiplications Mixed 4s Divisions	SAB: 59-62 SHC: 59-62 HR: 77-78	MP:1,3,4,5,6,7,8 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.6, CC.3.OA.7	Count-bys, Fast Array, 5s shortcut
Lesson Focus	Develop multiplication and division strategies and use them to solve problems.			
Formative Assessment	Ask students to explain how they can use relationships in a Fast Array to find divisions they don't know. Students should describe how multiplication can be used to find division using the numbers in the Fast Array.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Review count-bys, multiplications, and divisions. A2: Use the Strategy Cards to see the relationship between multiplication and division. A3: Practice basic multiplications and divisions.			

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Notes	Read 1EE-1II Have kids explain the strategy cards to you and what is on them. Ask kids to draw how they see the mult problem for finding an unknown			
1.14 2 days	Mixed 4s Multiplications	SAB: 63-64 SHC: 63-64 HR: 79-80	MP: 1,3,5,6 CC.3.OA.1, CC.3.OA.2, CC.3.OA.3, CC.3.OA.4, CC.3.OA.5, CC.3.OA.6, CC.3.OA.7, CC.3.MD.7c	n/a
Lesson Focus	Build fluency with 2s, 3s, 4s, 5s, 9s, and 10s multiplications and divisions.			
Formative Assessment	Ask students to explain how they can use a multiplication strategy to find the answer to 7×4 . Students may explain finding the area of a rectangle to finding the product or they may explain how to find it using the Distributive Property or the 5s shortcut.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Fluently multiply and divide with 2s, 3s, 4s, 5s, 9s, and 10s. A2: Use a strategy to find multiplications and division. A3: Make sense of word problems involving multiplication and division.			
Notes	Read 1EE-1JJ Kids who are fluency can help less advanced kids. Talk about lots of strategies and have kids talk about them!!			

Quick QUIZ 3

Quick Quiz 3 – 1 Day *for reteaching*

Give quiz after teaching lesson 14 – 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)

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Big Idea 4: Multiply with 1 and 0				
1.15	4s Multiplications in Order Mixed 4s Multiplications Mixed 4s Divisions	SAB: 65-68 SHC: 65-68 HR: 81-84	MP: 3,5,6,7,8 CC.3.OA.5, CC.3.OA.6, CC.3.OA.7, CC.3.OA.9	Commutative Property of Multiplication, Associative Property of Multiplication, Identity Property of Multiplication, Zero Property of Multiplication.
Lesson Focus	Use multiplications properties and division rules as strategies to multiply and divide with 1 and 0.			
Formative Assessment	Ask students to describe any patterns found in the 1s and 0s multiplications and divisions and to explain how these patterns can help them when multiplying by 1 or 0. Students should explain that knowing these patterns or rules helps them to know the answer as soon as they see 0 or 1 as a factor.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice count-bys, multiplications, and divisions. A2: Explore patterns in 1s count-bys, multiplications, and divisions. A3: Explore multiplications and divisions with zero and learn that divisions by zero are not possible. A4: Explore the Properties of Addition and Multiplication and the Division Rules.			
Notes	Read 1EE-1II, 1KK-1LL Mult by 1 is called multiplicative identity – use counters if difficult to understand with pictures and equations Zero as a divisor is impossible because the related mult problem is not true Associative property of adding says changing they way addends are grouped doesn't change the sum, so... connect how Associative prop of mult is similar - IMPORTANT kids know how to use the properties and rules, terminology not as important, but use the terms OFTEN!!			
1.16	3s Multiplications in Order Mixed 3s Multiplications Mixed 3s Divisions	SAB: 69-70 SHC: 69-70 HR: 85-86	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	Equal groups, array

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Lesson Focus	Identify, solve, and create multiplication and division word problems.			
Formative Assessment	Ask students to describe the difference between an array and an equal groups multiplication problem. Students should explain that in an array problem, rows and columns are usually mentioned. In an Equal Groups problem, equal groups are described.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Practice 9s count-bys, multiplications, and divisions. A2: Identify word problems by type and then solve them. Create word problems.			
Notes	Read 1EE-1II Have kids use their knowledge of drawings (equal groups or arrays) having pictures helps kids figure out how to solve			
1.17	4s Multiplications in Order Mixed 4s Multiplications Mixed 4s Divisions	SAB: 71-76 SHC: 71-76 HR: 87-90	MP:5 CC.3.OA.6, CC.3.OA.7	n/a
Lesson Focus	Practice with 2s, 3s, 4s, 5s, 90s, and 10s multiplications and divisions.			
Formative Assessment	Ask students to explain how you can use $8 \div 2 = 4$ to help you find $8 \div 4$. Students should explain that for a set of 3 numbers such as 8, 2, and 4 there are two divisions and two related multiplications. For example, if you know $8 \div 2 = 4$, then you know $8 \div 4 = 2$ and you also know $2 \times 4 = 8$ and $4 \times 2 = 8$.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Review count by-s, multiplications, and divisions. A2: Practice multiplications and divisions by playing games.			
Notes	Read 1EE-1II Playing the game is a great math center			

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1.18 2 days	1s Multiplications in Order Mixed 1s Multiplications Mixed 1s Divisions	SAB: 77-84 SHC: 77-84 HR: 91-92 portfolio page	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	Multiples, quotient, divisor
Lesson Focus	Practice multiplications and divisions and solve word problems for 0s, 1s, 2s, 3s, 4s, 5s, 9s, and 10s.			
Formative Assessment	Ask students to explain why they can write a multiplication equation to solve a division problem. Students should explain that multiplication and division undo each other.			
I CAN... Learning Targets	Instructional Strategies: Student Outcome: A1: Check fluency for multiplications and divisions for the factors in Unit 1. A2: Solve multiplication and division word problems.			
Notes	Read 1EE-1JJ			
<div>Quick QUIZ 4</div> <div>Quick Quiz 4 (found at the end of lesson 19) – 1 Day <i>for</i> reteaching</div> <div>Give quiz after teaching lesson 18 – then take this day to reteach/enrich per each quiz item.</div> <div><i>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.</i></div> <div>Found on OAISD Math Resources K-5 (Balanced Assessment Resources)</div>				
1.19		SAB: 85-86 SHC: 85-86 HR: 93-94 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,	n/a

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		page	CC.3.OA.5, CC.3.OA.7, CC.3.OA.9	
Lesson Focus	Use the Common Core Content Standards and Practices in a variety of real world problem solving situations.			
Formative Assessment	Formative Assessment for Unit Objectives 1A, 1B, 1C, 1D. See Assessment Guide for Unit 1 Quick Quiz 4.			
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. A2: 7. Look for and make use of structure, 8. Look for and express regularity in repeated reasoning.			
Notes	Read 1EE-1II, 1MM			

Unit 1 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 1 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 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.

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Performance Task

Use the **Grade 2 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 Unit 4 (addition subtraction)– 2.OA 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

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Grade 4 Rtl Standards Readiness Standards - found in Unit 1- Essential for Grade 4

Grade 3 CCSS MX Teacher Edition
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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
Multiplication and Division Games	Unit 1 Lesson 17 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