## PACING CHANGE

## Unit 1, 2, 3, Unit 6, 7, Unit 5, Unit 4

JULY 22, 2016
OAISD

## MATH EXPRESSIONS CCSS GRADE 3- UNIT 6 <br> Third Grade - Unit 6

## Hints to Unit 6

## All quizzes for unit 6 are ok.

## Math Expressions Common Core Edition

This unit is important to teach - but centers or concepts should be revisited OFIVEAX,z046n't spend too much time on each lesson - instead teach the lesson entirely and revisit OFTEN!!!!!

- Builds on Unit 3 concepts
- Grade 2 they studied perimeter as an attribute of plane figures, no they need to understand how these two attributes are different - finding both perimeter and area will help differentiate this. - focus on how different units are used
- Grade 3 standard states that students reason with shapes and their attributes in 2 ways
- Shapes in different categories (rhombus, rectangle) may share attributes (four sides) and that the shared attributes can define a larger category (quadrilaterals)
- Recognize rhombuses, rectangles, squares as examples of quadrilaterals
- Draw examples of quadrilaterals that do not belong to any of these subcategories
- Partition shapes into parts with equal areas
- Express the area of each part as a unit fraction of the whole
- Right angled shapes are the foundation of many important math concepts
- Simplest quads (rectangles, squares)
- Right triangles that compose these shapes
- Unit squares that make up area
- Equilateral triangles are simple shapes but they compose a rhombus, trapezoid, hexagon
- Parallelograms are the beginning of students experiencing parallel lines
- 3 kinds of geometric shapes are important as bases for formal treatment of shapes and their properties
- Shapes with right angles
- Shapes based on equilateral triangles
- Shapes based on parallelograms
- This along with properties are crucial for the study of geometry
- Is the shaped closed/open, convex/concave
- Lines straight/curved
- Number of sides/angles
- Sides equal length
- Angle - right/larger/smaller...
- Research shows third grade kids did not understand perimeter, area, could not differentiate between the measures, or compute measures - therefore MUST focus on the understanding of the concepts in the lower grades! Conceptual developments of properties of perimeter, area, use of appropriate units, counting strategies needs to be the focus
- Leave the formulas to the upper grades!!!!

Reasoning abstractly and quantitatively - use different methods to find the area of figures that are rectangles and figures that are not rectangles, and how area and perimeter are different

- Kids will find perimeter and area of various shapes and go deep into concepts of area of rectangular figures.
- Explore relationship between perimeter and area by investigating rectangles with the same perimeter and different areas and rectangles with same area and different perimeter
- THERE ARE SOME ERRORS IN LESSON 6-6, PAGE 323 STUDENT BOOK. THE DIMENSIONS OF THE RECTANGLES ARE OFF IN PROBLEMS: 14, 16, 17, 21 THE LENGTH SIDE MEASUREMENT IS A SMALLER NUMBER THAN THE WIDTH SIDE MEASURFMEAV/A Seifert Decker 2016-17 rdecker@oaisd.org

Second Grade skills...
2.G. 1 -Recognized and drew triangles, quadrilaterals, pentagons, hexagons, and cubes 2.G. 2 -Partitioned a rectangle into rows and columns of same-size squares and counted to find the total

## Third Grade...

recognize attributes of triangles, quadrilaterals, and other polygons decompose polygons into triangles and compose polygons from triangles
recognize perimeter and area as attributes of plane figures and find ways to measure both attributes investigate relationship between area and perimeter - this will take time - put up posters and use in your quick practice often - use in centers, or find computer apps to encourage a lot of exposure!!

Research showed that many third grade kids did not understand perimeter and area, could not differentiate between the measures and could not compute the measures. Because they did not understand concepts from the lower grades. Conceptual development of properties of perimeter and area, use of appropriate units, and counting strategies should occur in early grades (later grades use formulas)

- THERFORE look at the above standards - make sure kids can do these BEFORE THIS UNIT!!!!!


## Third Grade - Unit 6 <br> Math Expressions Common Core Edition

July 22, 2016

## To transition from students' Grade $\mathbf{2}$ experiences with fraction names as equal shares, continue with this routine as needed.

- Lead this activity with students using the top ruler on M125, the ruler with inches, after it has been cut from the page.
- Use an extra copy of the top ruler and project it so students can see it (or draw a big ruler where students can see it).
- Cover all but the first inch of the ruler and say: What shape is this? [A rectangle.]
- Remember in Grade 2 when you divided a rectangle into two equal parts? Do you remember what you called each part? [a half or halves]
- So I am dividing this rectangle into two equal parts vertically (do so). What do I call each part? [a half or one half]
- Now in Grade 3 you are going to learn how to write the math symbol that says one half. It is written like this: One over two (write $1 / 2$ vertically as on the other rulers) to show that there is one of two equal parts.
- Look at your other rulers. Which ruler has this symbol for $1 / 2$ written on it? (Help students pull out the ruler that has $1 / 2$ between each whole number of inches.)
- How did we find this $1 / 2$ in each little rectangle? [We divided each little rectangle into two equal parts and wrote $1 / 2$ there where we made the dividing line.]


## Third Grade - Unit 6 Math Expressions Common Core Edition

July 22, 2016

- Let's check that these are really halves. In the first rectangle fold along the $1 / 2$ line. Did you make two equal parts of that rectangle? [Yes. Now I see why we can write $1 / 2$ for each rectangle.]
- Could we fold to make two equal parts each of the rectangles between the two numbers on the ruler? (Fold one more if you want, but do not fold all of them because of time.)
- So how does this ruler with halves work? Put your inch ruler above your halves ruler.
- Where is $1 \frac{1}{2}$ inches on the ruler with halves? [Slide a finger along the whole 1 inch and then one more half, the half past 1 inch.]
- Can you see how $1 \frac{1}{2}$ inches are made from one whole inch (slide your finger along the one inch length) plus the $1 / 2$ inch (slide your finger along the $1 / 2$ inch length)?
- Remember that rulers measure lengths, not those points that have number on them.
- Show me $31 / 2$ inches by sliding your finger along your ruler with halves. This length is made by what? [3 whole inches plus $1 / 2$ an inch]
- Do a couple more inch examples with finger sliding, such as $71 / 2$ inches and $101 / 2$ inches.
- Repeat the whole activity for fourths.


## Third Grade - Unit 6 <br> Math Expressions Common Core Edition

July 22, 2016

- Fold the first 1 inch on the inch ruler into 4 equal parts to make fourths. Elicit why we write this as $1 / 4$ [Because it is 1 of 4 equal parts].
- Elicit why the first inch on the fourths ruler has $1 / 4,2 / 4,3 / 4$. [Because these are 1 or 2 or 3 of the 4 equal parts.]
- Why do you not see a $4 / 4$ ? [Because $4 / 4$ is one whole inch, which we label with 1.]
- Do some finger sliding to find different lengths on the ruler, emphasizing that the length is some whole inches plus some fourths.

The crucial aspect of understanding rulers is to see the numbers on them as lengths from the beginning (or from 0 if the ruler has a 0 ).

The numbers on rulers (and on number lines and on bar graph scales) pull students' eyes to the numbers, and they make errors and do not understand the crucial length units.
That is why they are asked to circle the length units and fractions on page 159: to be sure that they are seeing each inch length and each fraction length.

## Third Grade - Unit 6 <br> Math Expressions Common Core Edition

July 22, 2016

Another "quick routine" would be to show shapes and have students identify the equal parts. Modify and use the examples below as needed.

1. Circle the model that correctly shows 1 third shaded.

2. 



There are $\qquad$ equal parts in all. $\qquad$ are shaded.

Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

Each shape is 1 whole. Estimate to equally partition the shape and shade to show the given fraction.

1. 1 half


A
A

B
$\qquad$

C


D
2. 1 fourth


A

A



B


C


D
3. 1 third


D

Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

1. Circle the strips that are cut into equal parts.

2. 


a. There are $\qquad$ equal parts in all. $\qquad$ is shaded.

b. There are $\qquad$ equal parts in all. $\qquad$ is shaded.

c. There are $\qquad$ equal parts in all. $\qquad$ is shaded.

d. There are $\qquad$ equal parts in all. $\qquad$ are shaded.

# Third Grade - Unit 6 <br> Math Expressions Common Core Edition 

## July 22, 2016

## January 2017

1/9 Begin Unit 6
1/13 Unit 6 Quiz 1
1/15 Re-teaching day for Unit 6 Quiz 1 (Mastery Learning Loop protocols)
1/25 Unit 6 Quiz 2
1/26 Re-teaching day for Unit 6 Quiz 2 (Mastery Learning Loop protocols)
1/27 Math Practice Lesson from Unit 5
1/30-2/2 Window of days to utilize the Mastery Learning Loop and take the Unit 6 test and Performance Task from Unit 3


Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

|  |  | Grade 3 <br> acing at a Glan |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Unit | 1 day for each Lessons <br> Some special cases where lessons take more than one day are accounted for and are shown in the detailed pacing guide | 1 day to reteach any concepts/strategies from the quiz | 1 test per unit 2-3 days for mastery | Instructional Days <br> (Including Mastery Learning Loop) |
| 1 | 19 | $\begin{gathered} 4 \text { days } \\ \text { (4 quizzes) } \end{gathered}$ | 2-3 | 25-26 |
| 2 | 15 | $\begin{gathered} 2 \text { days } \\ \text { (2 quizzes) } \end{gathered}$ | 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 |

Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

| $\begin{gathered} \text { Grade } 4 \text { Rtl Standards } \\ \text { Readiness Standards - found in Grade } 3 \text { Units- Essential for Grade } 4 \end{gathered}$ |  |
| :---: | :---: |
| Grade 3 CCSS MX Teacher Edition |  |
| Add 3 digit numbers <br> 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 <br> 3.NBT.2b | Unit 4 Lesson 11 Activity 1 methods <br> Unit 4 Lesson 12 Activity 1,2\&3 zeros <br> Unit 4 Lesson 13 Activity 1 methods and Unit 4 Lesson 14 Activity 1 diagrams |
| Multiply numbers from 0-10 3.0A.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 6 s 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 3.0A.7b | Unit 1 Lesson 4 Activity 2\&3 <br> Unit 1 Lesson 11 Activity 2 strategy cards Unit 1 Lesson 15 Activity 4 division rules |
| Identify fractions and their parts. <br> 3.NF. 1 | Unit 7 Lesson 1 Activity 1\&2 and Unit 7 Lesson 2 All |
| Identify fractions on a number line. <br> 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 |

[^0]Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

## Unit 6

Are you using math sense making about math structure using math drawings to support math explaining?
Big Idea 1: Analyzing Triangles and Quadrilaterals

| Lesson | Quick Practice | Materials | Common Core Standard/Practice | Words To Use |
| :---: | :---: | :---: | :---: | :---: |
| 6.1 <br> 2 days?? <br> Maybe?? | Tell Time to the Minute | SAB: 295-303B <br> SHC:295-302 \& AB: 163-166 <br> (includes cut outs) <br> (family Letter included) <br> HR: 235-236 | $\begin{aligned} & \text { MP: 2,3,5,6 } \\ & \text { CC.3.G.1, CC.3.G. } \end{aligned}$ | Angle, Concave, Convex, Decagon, Hexagon, Octagon, Polygon, Pentagon, Ray, Right angle |
| Lesson Focus | Understand the relationship between angles, triangles, and polygons. |  |  |  |
| Formative Assessment | Ask students what characteristics all triangles share and how they can be grouped into smaller categories. Students should explain that all triangles have three sides and three angles. Triangles can be grouped into smaller groups by the number of sides of equal length or by the types of angles. |  |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Compare and model angles. <br> A2: Describe triangles by the number of sides of equal length and by the types of angles. <br> A3: Build polygons from triangles that have the same size and shape. |  |  |  |
| Notes | Read 651Z, 651AA-651BB This lesson is a great idea for centers as these concepts might need many days of exposure!! This lesson established a foundation for the rest of the work in this unit by providing the vocab needed to discuss geometric concepts, explain ways to classify and name polygons, and how some figures composed and decomposed triangles. Classify angles and triangles. Understand triangles then work with quadrilaterals. Then move into polygons. Could use ruler to help with angle sides. Teaching note page 655 <br> **Grade 3 standard: 1. understand that shapes in different categories (rhombus, rectangles and others) may share attributes and that the shared attributes can define a larger category (quadrilaterals). <br> - Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories <br> 2. Partition shapes into parts with equal areas. |  |  |  |

## Third Grade - Unit 6

Math Expressions Common Core Edition
July 22, 2016

| - Express the area of each part as a unit fraction of the whole |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 6.2 | Tell Time to the Minute. | SAB: 303-306 <br> SHC: 303-306 <br> HR: 237-238 (could be included in student portfolio) | $\begin{aligned} & \text { MP: 3,6,7 } \\ & \text { CC.3.G.1 } \end{aligned}$ | Opposite, Parallelogram, Rectangle, Rhombus, Square, Trapezoid |
| Lesson Focus | Explore the relationships among parallelograms, rectangles, squares, rhombuses, and trapezoids. |  |  |  |
| Formative Assessment | Ask students to draw a quadrilateral and describe it. Students' descriptions should include the sides that are of equal length, the sides that are parallel, and if there are any right angles. |  |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Define parallelograms and observe, by measuring, that opposite sides of some parallelograms are the same length. <br> A2: Define rectangles, squares, and rhombuses and explain the relationships among them. <br> A3: Define trapezoids and identify all the names for given quadrilaterals. |  |  |  |
| Notes | Read 651Z, 651CC-651DD Vocabulary is huge - related to names and attributes. Teaching note 669 - really all the blue boxes are good info to read!! take the time to read them for this lesson!! |  |  |  |
| 6.3 | Tell Time to the Minute. | SAB: 307-310 <br> SHC: 307-310 \& AB: 167-170 <br> (includes grids) <br> HR: 239-240 (student portfolio) | $\begin{aligned} & \text { MP: 4,5,6 } \\ & \text { CC.3.G.1 } \end{aligned}$ | Parallel, Parallelogram, Rectangle, Rhombus, Square, Trapezoid |
| Lesson <br> Focus | Draw quadrilaterals. |  |  |  |
| Formative Assessment | Ask students to name a subgroup of quadrilaterals and give its attributes. For example, students may name rectangles and give the attributes of opposite sides parallel and the same length and four right angles. |  |  |  |

## Third Grade - Unit 6

Math Expressions Common Core Edition
July 22, 2016

| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Review the attributes of and draw parallelograms. <br> A2: Review the attributes of and draw rectangles, squares, and rhombuses and quadrilaterals that are not rectangles, squares, or rhombuses. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Notes | Read $651 Z \quad$ Drawing quad's help clarify the relationship among different quad's - helps connect attributes and properties of geometric shapes |  |  |  |
| 6.4 | Tell Time to the Minute. | SAB: 311-315B <br> SHC: 311-314 \& AB: 171-176 <br> HR: 241-242 (could be <br> included in student <br> portfolio) <br> Quick Quiz 1 <br> Fluency Check | $\begin{aligned} & \text { MP: 3,5,6,7,8 } \\ & \text { CC.3.G.1 } \end{aligned}$ | Parallelogram, quadrilateral, Rectangle, Rhombus, Square, Trapezoid |
| Lesson <br> Focus | Describe the relationships among various types of quadrilaterals and draw quadrilaterals that match a description. |  |  |  |
| Formative Assessment | Ask students to name the subcategories of quadrilaterals. Students should name parallelograms, rectangles, squares, rhombuses, and trapezoids. |  |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Review the key attributes of quadrilaterals, parallelograms, rectangles, squares, rhombuses, and trapezoids. <br> A2: Draw quadrilaterals that match given descriptions. <br> A3: Use a category diagram to classify quadrilaterals. |  |  |  |
| Notes | Read 651Z, 651CC-641DD Again- good for centers - kids could use a lot of exposure to solidify these standards |  |  |  |

# Third Grade - Unit 6 <br> Math Expressions Common Core Edition 

July 22, 2016

## Quick Quiz 1-1 Day for reteaching

## Give quiz after teaching lesson 4 - 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 or Think Central

## Fluency Check

## Big Idea 2: Area and Perimeter

| 6.5 | Tell Time to the Minute. | SAB: 315-320 <br> SHC: 315-320 \& AB: 177-184 <br> (includes family letter) <br> HR: 243-244 <br> Centimeter paper, rulers, sticky notes | MP: 2,3,5,6,7 CC.3.MD.5, CC.3.MD.5a CC.3.MD.5b, CC.3.MD. 6 CC.3.MD.7, CC.3.MD.7a CC.3.MD.7b, CC.3.MD. 8 | Area, Perimeter, Unit square |
| :---: | :---: | :---: | :---: | :---: |
| Lesson Focus | Develop concepts of perimeter and area. |  |  |  |
| Formative Assessment | Ask students to explain what the perimeter and area of a figure are and to tell how both attributes can be measured. |  |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Recognize perimeter and area as attributes of plane figures and find perimeters and areas of figures on a dot grid. <br> A2: Measure area by tiling with unit squares and by multiplying. <br> A3: Measure areas by counting square feet and square meters. |  |  |  |
| Notes | Read 651EE-651HH Students recognize area as an attribute of plane figures to guide them to develop ways to measure area - tile with unit squares, see number of unit squares as product of side lengths, see area model as distributive proper of |  |  |  |

Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

|  | multiplication over addition. This unit builds on unit 3 re-establishing the concept of mult. 2 factors. the concept of perimeter and area bring together the domains of geometry, measurement, and data. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 6.6 | Tell Time to the Minute. | SAB: 321-324 <br> SHC: 321-324 \& AB: 185-186 <br> HR: 245-246 (could be included in student portfolio) <br> Sticky notes -2 colors | MP: 1,2,3,5,6 <br> CC.3.MD.6, CC.3.MD. 7 <br> CC.3.MD.7a, <br> CC.3.MD.7b, <br> CC.3.MD.7c, CC.3.MD. 8 | Side length |
| Lesson Focus | Use side length in area and perimeter calculations and problems. |  |  |  |
| Formative Assessment | Ask students to describe how to find an unknown side length when the perimeter or the area of a rectangle is known. |  |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Record the results of tiling a rectangle by using the Distributive Property to show that the area of a rectangle with side lengths $d$ and $e+f$ is the sum of $d x e$ and $d x f$. <br> A2: Find an unknown side length of a rectangle when one side length and either the perimeter or area are known. |  |  |  |
| Notes | Read 651EE-651HH THERE ARE SOME ERRORS IN LESSON 6-6, PAGE 323 STUDENT BOOK. THE DIMENSIONS OF THE RECTANGLES ARE OFF IN PROBLEMS: 14, 16, 17, 21 THE LENGTH SIDE MEASUREMENT IS A SMALLER NUMBER THAN THE WIDTH SIDE MEASUREMENT. <br> Grade 2 kids studied perimeter - BUT it is important that kids really understand how perimeter and area attributes are different - finding and measuring both will help - also emphasize that different units are used to describe each attribute - units of length for perimeter and square units for area |  |  |  |
| 6.7 | Tell Time to the Minute. | $\begin{aligned} & \text { SAB: 325-326 } \\ & \text { SHC: 325-326 \&AB: 187-188 } \\ & \text { (includes tables) } \\ & \text { HR: 247-248 } \\ & \text { Centimeter dot paper, } \\ & \text { rulers } \end{aligned}$ | MP: 2,3,6,8 <br> CC.3.MD.5, CC.3.MD.5a <br> CC.3.MD.5b, CC.3.MD.7b <br> CC.3.MD. 8 | Area, perimeter |

© Robyn Seifert Decker 2016-17 rdecker@oaisd.org

## Third Grade - Unit 6 <br> Math Expressions Common Core Edition

July 22, 2016

| Lesson Focus | Recognize that rectangles with the same perimeter can have different areas, and rectangles with the same area can have different perimeters. |
| :---: | :---: |
| Formative Assessment | Ask students to describe if they were given a rectangle with a certain perimeter, how they would draw it so that it has the greatest area. Suggest they use a perimeter of 18 inches to help them explain. |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Draw all of the possible rectangles with a given perimeter and sides whose lengths are whole numbers, and find and compare their areas. <br> A2: Draw all of the possible rectangles with a given area and sides whose lengths are whole numbers, and find and compare their perimeters. |
| Notes | Read 651EE-6512HH Relate perimeter and area as they draw on a dot array all the possible rectangles with a given perimeter with whole unit side lengths. Notice-- for given area the longest skinniest rectangle has the greatest perimeter and the most square-like rectangle has the least perimeter. Notice - for given perimeter, the longest skinniest rectangle has the least area and the most square like rectangle has the greatest area |
| 6.8 | Tell Time to the Minute SAB: 327-330 MP: 2,3,6 Decompose, Rectilinear, <br>  SHC: 327-330 \& AB: 189-192 CC.3.MD.7b polygon <br>  HR: 249-250 CC.3.MD.7d  |
| Lesson <br> Focus | Find the area of figures by decomposing them into rectangles. |
| Formative Assessment | Draw a rectilinear figure on the class MathBoard or on Centimeter Dot Paper and ask students to explain two different ways to decompose it to find the area. |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Find the area of a figure by decomposing it into rectangles and adding the areas of the rectangles. |

## Third Grade - Unit 6

Math Expressions Common Core Edition
July 22, 2016

| Notes | Read 651II Distributive property! Rectilinear- simply means "being made of straight lines" Work with l-shaped figures helps see that area is additive - add the area of 2 parts gives same as counting all the unit squares in the figure. Understand inverse relationship of add/sub to find the length of a side given the length of the other side and perimeter and use what know about inverse of mult/div - to find the length of the other side. Be sure to always refer to the UNKNOWN SIDE LENGTH, and NOT the Missing Side Length. the side is not missing because it is part of the rectangle; its length is what is not known |  |  |
| :---: | :---: | :---: | :---: |
| 6.9 | Tell Time to the Minute SAB: 331-334 <br>  SHC: 331-334 <br>  HR: 251-252 (could be <br> included in student  <br>  Portfolio) | MP: 1,2,3,4,6 CC.3.MD.5, CC.3.MD. 7 CC.3.MD.7b, CC.3.MD.7d CC.3.MD. 8 | Dimensions |
| Lesson Focus | Use concepts of perimeter and area to solve real world problems. |  |  |
| Formative Assessment | Ask students to write examples of and explain how they would solve a real world area and a real world perimeter problem. |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Solve real world problems by applying concepts of perimeter and area. |  |  |
| Notes | Read 651EE-651HH <br> There are many ways to solve these problems - make sure to use the SOLVE AND DISCUSS to hear all the ideas - use drawings, clear language |  |  |
| 6.10 | Tell Time to the Minute SAB: 335A-340 <br>  SHC: 335A-340 \& AB: 193- <br>  200 <br>  Quick Quiz 2 found in lesson <br>  11 HR: 253-254 | $\begin{aligned} & \text { MP: 3,4,5,6,7,8 } \\ & \text { CC.3.MD.5 } \\ & \text { CC.3.MD. } 6 \end{aligned}$ | Tangram |

© Robyn Seifert Decker 2016-17 rdecker@oaisd.org

## Third Grade - Unit 6 <br> Math Expressions Common Core Edition

July 22, 2016

| Lesson Focus | Use tangram shapes to find areas of figures. |  |  |
| :---: | :---: | :---: | :---: |
| Formative Assessment | Ask students to explain how area and perimeter can be used to describe figures and to tell what kinds of problems can be solved by finding the area and perimeter of rectangles. |  |  |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> A1: Explore relationships among the shapes of tangram pieces by solving tangram puzzles. <br> A2: Cover a figure with tangram pieces and add the areas of the pieces to find the area of the figure. |  |  |
| Notes | Read 651JJ-651KK Once familiar with shapes, and can reproduce a given figure, then use to construct and calculate their areas, this helps reinforce the concept that area is additive. This is designed to make the visual connection between the whole figure and smaller figures that compose it - then use what know of smaller figures and compose/decompose larger ones |  |  |
| Fluency Check |  |  |  |
| Quick Quiz 2 (found at the end of lesson 11) - 1 Day for reteaching <br> Give quiz after teaching lesson 10 - then take this day to reteach/enrich per each quiz item. <br> Found on OAISD Math Resources K-5 or Think Central |  |  |  |
| 6.11 | If you would like to include Quick Practice with this lesson, use the Quick Practice provided in Lesson 1 | SAB: 341-342 <br> SHC: 341-342 \& AB: 201-202 <br> Quick Quiz 2 but give after lesson 10 <br> Fluency check <br> HR: 255-256 (could be included in <br> student portfolio) <br> Inch grid paper | MP: 1,2,3,4,5,6,7,8 CC.3.MD.7d, CC.3.MD. 8 CC.3.G. 1 |
| Lesson Focus | Use the Common Core Content Standards and Practices in a variety of real world problem solving situations. |  |  |

# Third Grade - Unit 6 <br> Math Expressions Common Core Edition <br> July 22, 2016 

| Formative Assessment | n/a |
| :---: | :---: |
| I CAN... <br> Learning <br> Targets | Instructional Strategies: <br> Student Outcome: <br> 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. <br> A2: 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. <br> A3: 3. Construct a viable argument and critique the reasoning of others. 6. Attend to precision. |
| Notes | Read 651KK |
| Unit 6 <br> Balanced Assessment Resources and Protocols <br> The balanced assessment is made up of 3 components: the current unit content (Unit test, Fluency) and prior content at a varying depth of knowledge (Performance Task). <br> Unit 6 Test and Review <br> 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 <br> 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. <br> Fluency Check <br> Use Friendly Fast Go Around Routine |  |
|  |  |

## Third Grade - Unit 6 <br> Math Expressions Common Core Edition

July 22, 2016

## Performance Task

Use the Unit 3 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)

Third Grade - Unit 6
Math Expressions Common Core Edition
July 22, 2016

| GRADE 3 <br> Math Rtl Grade 2 CCSS MX Teacher Edition |  |
| :---: | :---: |
| Identify numbers to 1,000 <br> 2.NBT. 3 | Unit 2 Lesson 1 Ones, tens and hundreds <br> Unit 2 Lesson 2 Activity 1 Draw Quick 10s and 100s <br> 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 <br> 2.NBT. 8 | Unit 2 Lesson 4 Activity 3 Add 1, 10, 100 to a number |
| Compare numbers to 1,000 <br> 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 <br> Unit 4 Lesson 8 When to ungroup <br> Unit 4 Lesson 5 Methods <br> Unit 4 Lesson 7 Subtract from 200 <br> Unit 4 Lesson 9 Zeros <br> Unit 4 Lesson 11 Game subtraction |


[^0]:    © Robyn Seifert Decker 2016-17 rdecker@oaisd.org

