DYU-Do you understand
TPS-TAKS Problem Solving
DI-Differentiated Instruction

Summary of Fifth Grade Math-Scope and Sequence with Sample Ideas and Strategies

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Aug. 24 – Aug. 26	**(3 Hours)** Relationships **See Teacher Notes** **Assessment Examples**	5.5a. Describe the relationship between sets of data. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use Creature lesson and create a monster activity with fraction circles and fraction factory pieces.	Use guided practice problems that follow creature lesson.	Create teams and play the telephone game. Solve silly stories to provide students practice in understanding relationship vocabulary. Mental Math Riddles Lesson 11-5, p. 252	**Vocabulary**: variable, half twice, triple, double, two times, decrease by, increase by, fewer than, less than, more than, sum, difference, product, quotient, add, subtract, multiply, divide	Describe a relationship in at least 2 ways: i.e., • Sam is half the age of Ian • Ian is twice the age of Sam
Aug 27 – Sept. 4 See next table	**(6 Hours)** Prime, Composite, Factor Pairs, Prime Factorization and Common Factors **See Teacher Notes** **Assessment Examples**	5.5b. Identify prime and composite numbers using concrete objects, pictorial models and patterns in factor pairs. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use color tiles or counters to represent array(s) for numbers and write the factor pairs. From the pattern, define prime and composite numbers.	Represent array(s) for numbers on grid paper, write the factor pairs Identify prime or composite factors.	Identify prime numbers in a Hundred Chart. Memorize prime numbers less than 30. Find prime factorizations of numbers using factor trees. Use a table of factor pairs to identify all factors OR use rainbow factors to identify factors OR use a prime factorization to identify factors.	Describe how to identify prime and composite numbers using arrays. **Vocabulary**: factor, prime, composite, array, factor pair, factor tree, multiple DYU p. 179, #5,6 DYU, p. 183, #8 Explain It, p. 182, #1, 2	Avoid use of divisibility rules for 3, 4, 6, 7, 8 or 9. See strategy of prime, composite, prime factorization. 

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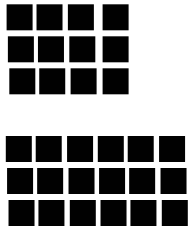
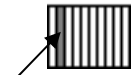
Aug 27 – Sept. 4	Common Factors **Assessment Examples**	5.3d. Identify common factors of a set of whole numbers.	Color tiles or counters can also be used to show common factors by building arrays. For example, 12 and 18 share a common factor of 3 because a 3 x 4 array can be built for 12 and a 3 x 6 array for 18.  TE Intervention, p. 185B	Represent common factors using Venn diagrams.	Use the prime factorization of two composite numbers to select their common prime factors, multiply factors, and build t-chart. Use the prime factorization to build "Rainbow Factors" to list all the factors of a number; identify common factors from two lists of factors.	Make generalizations about numbers that have factors of 2, 5, or 10. **Vocabulary**: prime factorization, factors, common factors	Include the use of Venn Diagrams to show factors and common factors. See strategies of finding factors and common factors.  Prime factors are a special type of factors. Prime factorization is used to reduce fractions. Have students compare and contrast factor, factor pair, and common factors.

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Sept. 8 – Sept. 15	**(6 Hours)** Equivalent Fractions  **See Teacher Notes** **Assessment Examples**	5.2a. Generate equivalent fractions. (higher terms) 5.5a. Describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use fraction towers or virtual manipulatives to show and make lists of equivalent fractions. Cut apart models of fractions to build equivalent fraction tables. Build equivalent fractions using fraction factory and make lists of the equivalent fractions. DI-Intervention, p. 171B	Use diagrams of fractions already drawn and shaded drawings to show equivalent fractions. Make lists of equivalent fractions. Interactive Learning, Numberline, p. 172B, 173B	Use popsicle stick fraction ladder to show equivalent fractions and build charts of equivalent fractions. Generate equivalent fractions using charts or via multiplication of numerator and denominator.	**Vocabulary**: numerator, denominator, equivalent. DYU, p. 146, #3-5 DYU, p. 170, #3 TPS, p. 173, #12 DYU, p. 174, #8 Describe how to generate equivalent fractions using models. Describe how to generate equivalent fractions using chart. Describe relationships between numerator and denominator in the same fraction. Describe relationship between numerators/ denominators of two equivalent fractions. Describe the relationship between fractions.	Majority of time should be spent on abstract fractions. Avoid generating equivalent fractions by multiplying numerator and denominator by same number without generating the pattern first in a list or table. See strategy. 
	Assessment Examples	5.2a. Generate equivalent fractions. (lower terms) 5.5a. Describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Group counters on a renaming board to generate the fraction in lowest terms. Use fraction towers to group and rename fraction to lower terms.	Draw counters on a renaming board to generate the fraction in lowest terrns. Use shaded diagrams to group and rename a fraction in lower terms.	Use popsicle stick fraction ladder to show equivalent fractions and build charts of equivalent fractions from left to right. Use prime factorizations of numerator and denominator to find equivalent fractions in lower terms.		Using a prime factorization is the recommended way to rename a fraction to lowest terms, although some students will need to do pictorially by drawing circles or dots for counters. Use cross-out strategy to solve fractional relationship problems. Prime factorization represents the method used to simplify algebraic fractions. See strategy. 
		5.2b. Generate equivalent improper fractions and mixed numbers.	Use fraction manipulatives to build quantities greater than 1.	Given a picture model, write the improper and mixed number or given an improper fraction or mixed number, draw the model.	Use expanded form to write a mixed numeral as an improper fraction. 5/3 = 3/3 + 1/3	Improper fraction, Mixed number	See strategy Describe the relationship between the numerator and denominator in mixed and improper fractions. 

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Sept. 16	Quiz: Relationships, Prime, Composite, Factor Pairs, Factors, Common Factors, Equivalent Fractions , Fractional Relationships						
Sept. 17	Re-teach						
Sept. 18 – Sept. 25	**(6 Hours)** Comparing and Ordering Fractions (Continue with mixed also) **See Teacher Notes** **Assessment Examples**	5.2c. Compare two fractional quantities in problem solving situations using a variety of methods, including common denominators. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use virtual manipulatives, fraction towers, circles or squares to demonstrate comparing and ordering of fractions with unlike denomina 	Given 2 models of fractions compare two shaded fractions by creating the same number of equal parts. .	Compare and order fractions by generating equivalent fraction tables until the fractions share a common denominator.	Students should be able to verbalize the process being used for comparing. **Vocabulary**: greater than, less than, more than (<, >), larger, smaller, equivalent, common denominators Students should be able to verbalize why denominators must be common to compare. Students should write the relationship 2 ways 1/2 > 1/3 1/3 < 1/2	Emphasis is on the abstract. Often, students are given a fraction and asked to pick a fraction that is larger or smaller from several fractions. The fractions on TAKS do not lend themselves to drawing so AVOID drawing pictures to compare. Do NOT use cross multiplication to compare fractions. See strategy. 

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Sept. 28-Oct. 2 Please note only fractions with denom. of 10, 100, or 1000	**(5 Hours)** Relating Decimals to Fractions **See Teacher Notes** **Assessment Examples**	5.2d. Use models to relate decimals to fractions that name tenths, hundredths, and thousandths. 5.1a. Use place value to read and write whole numbers through the 100 billions place. 5.1b. Use place value to read write decimals through the thousandths place. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use virtual manipulatives or decimal squares to represent fractions that name tenths, hundredths, or thousandths. Use the decimal squares to demonstrate naming fraction and equivalent decimal. e tools Use pictures of decimal squares to write a fraction and equivalent decimal.	Use patterns in a table to help students see the relationships of fractions to decimals and how a fraction can be written as a decimal. Define a decimal as a method of writing fractional numbers without writing a numerator and denominator.	Use model to write an equivalent fraction. If the denominator is not 10, 100 or 1,000, generate a list of equivalent fractions until denominator is 10, 100 or 1,000; then, write as a decimal. Lesson 1-3, p. 10-11.	**Vocabulary**: decimal, tenths, hundredths, thousandths. DYU, p. 158, #9, 10	The TEKS is clearly using models so do NOT divide the numerator by denominator as this is not this TEKS. See strategy. 

Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1,000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
						
1,000 wholes	100 wholes	10 wholes	1 whole	1 part of 1 whole divided into 10 parts	1 part of 1 whole divided into 100 parts	1 part of 1 whole 1000 parts

Oct. 5, 6	Review for Benchmark						
Oct. 7	Benchmark (Long Testing Window)						
Oct. 8	Payback Science						
Reflections on Student Difficulties:							
Re-teach benchmarks through Warmups							

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Oct. 9 – Oct. 14	**(3 Hours)** Compare, Order, and Rounding Decimals and Whole Numbers **Assessment Examples**	5.1a. Use place value to compare and order whole numbers through the 100- billions place; and 5.1b. Use place value to compare and order decimals through the thousandths place. 4.5a Round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use decimal squares to compare and order. Use money to compare and order.	Lesson 1-1, p. 4, 5 Use pictures of decimal squares to compare and order. Use number lines to compare and order. Use a number line or decimal model to decide which number it is closest to.	Use a table to line up place values to compare and order. Represent a decimal in expanded notation, i.e., $6.5 = 6 + \frac{5}{10}$ Students can circle the part being rounded and determine which it is closer to…i.e., Round 2,463 to hundred. 2,463 463 is closer to 500 than 400 Lesson 1-2, p. 6 Lesson 1-4, p. 12	Describe process of comparing place values from largest unit to smallest unit in order to compare and order. Students should be able to explain why the use of zero's to hold a decimal place value does NOT change the value. Students should be able to verbalize that 2,463 rounds to 2,500 because it is "closer" to 2,500 than to 2,400. Students should be able to verbalize why rounding a number to a smaller place value is closer to the exact value. Vocabulary: between, about, round, reasonable, estimate, greater than, less than	Relating decimals to money often helps students understand decimals quicker. See strategy. Avoid language like "drop the last digits or increase a place by 1" as these are not the mathematics of rounding. See strategy.

Ones	Tenths	Hundredths	Thousandths
1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
3	2	1	6
6	5		
6	3	4	

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Oct. 15 – Oct. 26	**(8 Hours)** Addition & Subtraction- Whole Numbers and Decimals **See Teacher Notes** Patterns **Assessment Examples** **Assessment Examples**	5.3a. Use addition and subtraction to solve problems involving whole numbers and decimals. 5.5a. Describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams. 5.6a. Select from and use diagrams and equation such as y = 5 + 3 to represent meaningful problem situations. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use decimal squares to model addition and subtraction of decimals.		Connect lining up the decimal point to the decimal square model. A table can be used to assist students in lining up the decimal point. Lesson 1-5, p. 14, 15 (Patterns) Enrichment Master (E3-2) Problem Solving (+ decimals) Enrichment Master (E3-3) Number Sense (-decimals)	Students should be able to explain why the decimal point is "lined up" in addition and subtraction and why the "imaginary zeros" do not change value. Students should verbalize the "action" in the problem as to the selection of addition or subtraction. **Vocabulary**: sum, difference, minus, regroup, join, put together, take away, compare, missing part, expression, number sentence, equation.	Emphasize abstract. Connect addition and subtraction of decimals to adding and subtracting money. Whole number emphasis is primarily about process, i.e., Subtract 15 from the sum of 20 and 30 .
	Estimation **See Teacher Notes** **Assessment Examples**	5.4a. Use strategies, including rounding and compatible numbers to estimate solutions to addition and subtraction problems. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*			Define compatible numbers as numbers that are easy to work with mentally. In pairs, deal a deck of cards so that each student has ten cards. Each student takes a turn, finding 2 cards that add to 10. Cards are then drawn to replace the pairs. The person with the greatest number of pairs wins. s	**Vocabulary**: Compatible numbers, about, round, reasonable. Describe why numbers that add to multiples of 10 might be called compatible numbers in addition. Describe how estimation and rounding are alike and different.	Answers may be in ranges. Rounding is one method of estimating. Adding or subtracting compatible numbers is another way of estimating. State is emphasizing compatible numbers. See strategy.

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Oct. 27 – Oct. 29	**(3 Hours)** Addition and Subtraction of Fractions with Like Denominators **See Teacher Notes** **Assessment Examples**	5.3e. Model situations using addition and/or subtraction involving fractions with like denominators, using concrete objects, pictures, words, and numbers 5.2a. Generate equivalent fractions, improper fractions and mixed numbers. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Use Fraction Factory or Fraction Towers to model addition and subtraction of parts of whole as well as mixed numbers. 	Use pictures of models of parts of whole to add or subtract parts of whole as well as mixed numerals. Lesson 10-5, p. 228 (numberline)	Represent fractions with models or with expanded form to add and subtract fractions. Ex: $\frac{2}{3} + \frac{2}{3} = \frac{4}{3} =$ $\frac{3}{3} + \frac{1}{3} =$ $1\ \frac{1}{3}$ Lesson 10-6, p. 232-233	Students should be able to verbalize why only the numerators are added or subtracted. DYU, p. 226, #7, 8 DYU, p. 229, #3-5	Emphasize the pictorial modeling of addition and subtraction when first introducing the concept and changing the answer to a mixed number. In some cases the fractions may need to be renamed. Review improper and mixed fractions See strategy. 
Oct. 30	Quiz: Compare, Order, Addition-Subtraction (whole number, decimals and fractions), Estimation						
Nov. 2	Re-teach						
Reflections on student difficulties:							

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Nov. 3 – Nov. 13 See next table	**(8 Hours)** Multiplication and Division **See Teacher Notes** **Assessment Examples** Patterns **Assessment Examples**	5.3b. Use multiplication to solve problems using whole numbers (no more than 3 x 2 digits). 5.3c. Use division to solve problems involving whole numbers **(no more than 1-digit divisor*)** including interpreting the remainder within a given context. 5.6a. Select from and use diagrams and equation such as y = 5 + 3 to represent meaningful problem situations. 5.5a. Describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*			Use the multiplication and division algorithms to solve worded problems. Sayings like, "scratch, scratch lay an egg" or "Does MacDonalds Sell Cheese Burgers" or "Dad, Mother, Sister, Cousin, Brother" can be used to help remember the steps in the algorithms. Interpreting Remaininder, Lesson 5-3, p. 96 Zeros in quotient, Lesson 5-6, p. 106 Picture Lesson 5-7, p. 110 Multi-Step Lesson 6-3, p. 124 Dividing Lesson 6-8, p. 136 Missing/Extra Info Lesson 406, p. 76	Students should be able to describe how they selected multiplication or division, i.e., the action. If students are using sayings, they should be able to verbalize why the work. **Vocabulary**: factor, times, product, multiple, divisor, dividend, quotient, remainder, average(feet per second) DYU, p. 68, #5 DYU, p. 74, #5, 6 DYU, p. 92, #7, 8 9 DYU, p. 94, #9, 10 DYU, p. 122, #7, 8 DYU, p. 129, #3, 4 DYU, p. 132, #5-7	Use the action posters to ensure an understanding of multiplication vs. division. Process and calculation are equally important. Interpreting remainders is important for solving worded problems in real-life situations. Ex: the number of cars needed to transport students… 14 students…..4 in each car….cannot have ½ a car. Have students verbalize or label their answer as **3 full cars and 2 students left. So** 4 cars are needed.

* Additional time in the spring semester

<table>
<tr><th>Projected Timeline</th><th>Topic</th><th>TEKS</th><th>Concrete</th><th>Pictorial</th><th>Abstract</th><th>Language, Process & Generalizations</th><th>Comments</th></tr>
<tr>
<td>Nov. 3 – Nov. 13</td>
<td>Estimation

See Teacher Notes

Assessment Examples</td>
<td>4.6c. Use patterns to multiply by 10 and 100.

5.4a. Use strategies, including rounding and compatible numbers to estimation solutions to multiplication and division problems.</td>
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<tr><td>50 ÷ 10</td><td>5</td></tr>
<tr><td>240 ÷ 10</td><td>24</td></tr>
<tr><td>280 ÷ 7</td><td>40</td></tr>
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<td>Review the pattern of multiplying by 10, 100, or 1000 and hence the pattern in division by 10.

Give examples of compatible numbers in multiplication and division.</td>
<td>Vocabulary: Compatible numbers, about, round, reasonable.

Describe why numbers that are multiples of 10 or 100 might be called compatible numbers in multiplication and division.</td>
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<tr><td>Nov. 11</td><td>Science BM</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nov. 16- 16</td><td colspan="3">Review for Benchmark</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nov. 18</td><td colspan="2">Benchmark (Long Testing Window)</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Nov. 19</td><td colspan="2">Science Payback</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="8">Reflections on student difficulties:</td></tr>
<tr><td colspan="8">Re-teach benchmark through warm-ups.</td></tr>
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Nov. 20 – Nov. 24	**(3 Hours)** Coordinates **See Teacher Notes** **Assessment Examples**	5.9a. Locate and name points on a coordinate grid using ordered pairs of whole numbers. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Find unusual places to label a coordinate grid: floor tiles, concrete, etc and practice plotting points. Use grid paper to plot points on a coordinate plane.		Lesson 13-1, p. 292	**Vocabulary:** Coordinate plane, ordered pair, coordinates, origin, x and y axis, plot, north, south, east west Please note that an ordered pair has 2 coordinates: x-coordinate and y-coordinate.	Sayings such as "crawl" before you walk" can help students remember which direction to move first. See strategy.  Coordinate grids are often presented with tables when tested.
Thanksgiving							
Nov. 30 – Dec. 1	**(2 Hours)** Graphs **See Teacher Notes**	5.13a. Use tables of related number pairs to make line graphs. 5.5a. Describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*			Given a real-life situation with a set of data, create a line graph. Lesson 13-2, p. 296	Students should be able to describe in words the relationship in the table, i.e., "each year the revenue increased $200" or "throughout the year the earnings decreased."	This is usually tested by asking students to match the graph to an appropriate table of related number pairs.
	Assessment Examples	5.13c. Graph a given set of data using an appropriate graphical representation such as a picture or line graph. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*		Graph a real-life situation on 2 types of graphs and discuss why one graph is more appropriate, i.e., the distance from Sun various planets are. Interactive Learning, p. 416B	Lesson 19-3, p. 416	Students should discuss the advantage or disadvantage of different types of graphs.	This is usually tested by asking students to match the graph to an appropriate table of related number pairs.

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Dec. 2 – Dec. 3	**(2 Hours)** Possible Outcomes **See Teacher Notes**	5.12c. List all possible outcomes of a probability experiment such as tossing a coin. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Interactive Learning p, 430B Interactive Learning p, 432B		Use an organized list or organized diagram.	**Vocabulary**: favorable outcome, possible outcome, impossible, probable	
Dec. 4 – Dec. 10	**(4 Hours)** Probability **Assessment Examples** **See Teacher Notes** **Assessment Examples**	5.12a. Use fractions to describe the results of an experiment. 5.12b. Use experimental results to make predictions. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*	Conduct a probability experiment and tally the results, i.e., rolling a die 25 times, tossing a coin 10 times, drawing patterns blocks from a bag. Write the results of each event as a fraction in lowest terms. From the results of the experiment, make predictions about which is more likely, less likely or equally likely to occur. 	Using a picture of the results of a probability experiment, use fractions to describe the probability (relationships between numbers) of an event in lowest terms. From the results of the experiment, make predictions about which is more likely, less likely or equally likely to occur. Lesson 20-2, p. 432	Use fractions to describe the probability (relationships between numbers) of an event including numbers in tables or tally charts. From the results of the experiment, make predictions about which is more likely, less likely or equally likely to occur.	Describe which number represents the numerator and denominator (number of favorable outcomes over the number of possible outcomes)	See strategy. 
Dec. 8	Reading CBA						

Projected Timeline	Topic	TEKS	Concrete	Pictorial	Abstract	Language, Process & Generalizations	Comments
Dec. 11 – Dec. 15	**(3 Hours)** Problem Solving Strategy: Make a Plan, Guess & Check **See Teacher Notes** **Assessment Examples**	5.14b. Solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness. 5.14c. Select or develop an appropriate problem-solving strategy including guess and check. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*			Use cross out strategy or model drawing to solve.	**Vocabulary**: twice, three times, half, more than, less than, fewer, more, double, triple, greater than, increase, decrease, equal	
Dec. 16	Quiz: Graphs, Possible Outcomes, Probability, Guess-Check, Transformations						
Dec. 17 – Dec. 18	**(2 Hours)** Transformations **See Teacher Notes** **Assessment Examples**	5.8a. Sketch the results of translations, rotations, and reflections on a Quadrant I coordinate grid. 5.8b. Identify the transformation that generates one figure from the other when given two congruent figures on a Quadrant I coordinate grid. *Process TEKS 5.14a, 5.14b, 5.14c, 5.14d, 5.15a, 5.15b, 5.16a, 5.16b*		Using cut-out figures and dry-erase makers, trace a translation, rotations and reflection. Use grid paper and cut-out figures to sketch a couple of transformations.	Identify the transformation that occurred as being a translation, rotation or reflections. Lesson 14-4, p. 318	**Vocabulary**: Transformation, translation, rotation, reflection. Describe what is alike about all transformations. Describe what is different between transformations.	Use unusual pictures to transform. See strategy.  Please note that some symmetrical figures can appear to be more than one transformation.
Christmas Break							