TEKSING TOWARD STAAR

MATHEMATICS ®

GRADE 6

TEKS/STAAR-BASED

LESSONS

TEACHER GUIDE

General Information

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Overview

Guidelines for Lesson Components in Grade 6 Lessons

Materials: Review the list of materials needed for each lesson and prepare materials prior to beginning a lesson. Make sure Grade 6 Math Notes sheets are available to all students.

Math Background
A small print version is provided for the teacher for each part of the lesson. These materials will be presented in a large print projection version for use with students. Students will take notes on these projection pages on the Math Notes page. They will be allowed to use their notes during lesson activities. This may be the first time students have experienced "note taking" . They are to record in their words and their own way. The information recorded may be words, symbols, or pictures.

As each page is projected, various students share what they think is important information on the page. The teacher does NOT read the math background to the students and students do NOT read the math background to the class. Each student reads the information himself or herself. After students share the information, they write their notes. Some pages may NOT need any notes taken by most or all students.

Problem-Solving
A Problem-Solving Model is in this lesson for use throughout the entire school year. This model addresses the Process Standards TEKS 6.1B. This model should be discussed during this lesson and a copy should be given to each student to keep in their math notebook.

A projection version of each Problem-Solving activity is provided and will follow each part of a lesson. A general set of questions that should be addressed by students as they solve the problems and during class discussion of the solution process for each problem is located before Problem-Solving Problem 1 in Lesson 1. Teachers should make a copy of these questions for each student and distribute prior to beginning Problem-Solving 1 in this lesson.

Teachers should discuss the questions and let students know they will be answering these questions for problem-solving activities during the entire school year. Each student should keep a copy of the questions in his/her math notebook.

Students work in partner pairs to answer the Problem-Solving questions. The teacher projects the problem, and then sets a time limit prior to the students beginning their work. Partner pairs are given specific "share" questions from 1-10 on the Problem-Solving Questions page. The process that should be followed by students for all Problem-Solving problems is to answer questions 1-3, then complete the solution to the problem, and then answer questions 4-10.

The teacher calls time and the partner pairs guide class discussion on their "share" assignments. Students who did not complete the solution to the problem prior to the time limit must complete recording in a different color.

Student Activity
A Student Activity follows a Problem-Solving Activity in each part of the lesson. Students work in pairs to complete a Student Activity, however, each student completes their own activity page(s). Math Notes are utilized to enable students to successfully complete the activity. If students did not take notes on materials they need to complete the activity, the teacher should invite them to view the Projection pages and take more detailed notes.

Various partner pairs should be assigned portions of the Student Activity for whole-class discussion. Before students begin the activity, the teacher should inform the class of time allotted for completion of the activity. Time should be called even if all partner pairs are not finished. Whole class discussion should begin with the partner pairs that had assignments leading the discussion. Partner pairs that did not complete the activity may complete the activity at this time by recording in a different color pencil or pen.

A Student Activity is **not** designed to be recorded as a grade, but should be recorded as a holistic score. A scale of 1-5 is appropriate as follows:
- 1 = little if any attempt
- 2 = no understanding evident
- 3 = minimal understanding evident
- 4 = mostly understood or slight mathematical errors
- 5 = complete understanding evident and no mathematical errors

Some lessons contain a Student Activity that is a hand-on activity. Teacher Notes prior to the student page(s) will contain questions that the teacher should ask before, during, and after the activity. It will also contain things for the teacher to look for during the activity.

Skills and Concepts Homework
Skills and Concepts Homework is provided for each lesson. More than one homework is provided if a lesson should be more than one instructional day in duration.

Each homework assignment includes 5 open-ended questions. The teacher should choose two or three questions to be scored by the teacher. The teacher should make written feedback comments for each student and should return the homework assignments within two days. Partial credit should be given if a student's work exhibits partial understanding, or if the student makes a minor mathematical mistake. Only ½ credit should be given for a correct answer if student work is not shown on the homework. The score on each Homework assignment may be recorded for each student. Periodically these scores should be combined and recorded as a grade.

Mini-Assessment
A lesson Mini-Assessment is completed by individual students and scored by the teacher. No assistance should be given during this time. Allow about 20 minutes for completion of the Mini-Assessment. The amount of time may vary for some assessments.

The teacher should score each Mini-Assessment with a score of 1-10. Partial credit may be given for each question if the student shows evidence of understanding but did not choose the correct answer due to minor mathematical error. Only ½ credit should be given for a correct answer if student work is not shown on the assessment. Scores should be periodically combined and recorded as a grade.

The teacher should record class data for this assessment in the Class Profile book. Students should record individual data in their Student Profile book.

Notes Page

Name _____ Date_____

Grade 6 Math Notes

Materials List

GRADE 6 MATERIALS LIST – SIX WEEKS 1-6

SIX WEEKS	LESSON	ITEM	QUANTITY
1	**1**	Copies of Math Notes Page Copies of Problem-Solving Plan Copies of Problem-Solving Questions	2 per student 1 per student 1 per student
1	**2**	Integer Cards and Blank Cards (copy on cardstock, laminate and cut apart to make one class set), roll of adding machine tape, black marker, tape or ticky tack to secure numbers to number line	1 set per class
1	**3**	8 -3' x 18" strips of construction paper 1 set of colored markers, 2 pair of scissors	1 set per pair of students
1	**4**	1 coordinate grid 1 Coordinate Caper Record Sheet	1 per student 1 per student
1	**5**	2 - 3 x 5 note cards	1 set per pair of students
1	**6**	A set of 20 color tiles (all the same color) 20 counters 10 rectangular strips of colored card stock (1 inch by 3 inches) 10 1-inch squares 4- 3 by 5 note cards	1 set per pair of students 1 set per pair of students 1 set per pair of students 1 set per pair of students 1 set per pair of students
1	**7**	ruler protractor	1 per student
1	**8**	Make cardstock copies of the Equation/Inequality cards. Cut apart and put in a baggie Make cardstock copies of the Solution set cards. Cut apart and put 1 set in a baggie. 1 sheet of white paper	1 set per group of 4 1 set per pair of students 1 per student
1	**9**	No Materials Needed	
1	**10**	No Materials Needed	
2	**1**	No materials needed	
2	**2**	No materials needed	
2	**3**	No materials needed	
2	**4**	Bag of 30 two-colored counters or 2 different colored tiles	1 per pair of students
2	**5**	3 by 5 file cards	3 per student pair
2	**6**	Percent Problem cards (copied on card-stock, cut apart and put in baggie) Solution Set cards(copied on cardstock, cut apart and put in baggie) 1-2 sheet of white paper.	1 set per group of 4 2 sets per group of 4 Per Student

GRADE 6 MATERIALS LIST – SIX WEEKS 1-6

SIX WEEKS	LESSON	ITEM	QUANTITY
2	**7**	Number Cards (copied on cardstock, cut apart and put in baggie)	1 set per pair of students
2	**8**	bag of 20 green tiles bag of 20 red tiles	1 per pair of students 1 per pair of students
2	**9**	No materials needed	
2	**10**	Student Height Data Record transparency (or copy to use on projection device) sheet of poster size butcher paper or sheet of poster size grid paper, colored markers, meter/yard stick	1 1 per group of 4 1 per group of 4 1 per group of 4
2	**11**	No materials needed	
3	**1**	3 by 5 blank note cards	3 per pair of students
3	**2**	Equation cards (copied on cardstock, cut apart, and put in baggie); Table cards (copied on cardstock, cut apart, and put in baggie); Situation cards (copied on cardstock, cut apart, and put in baggie)	1 set per group of 4 1 set per group of 4 1 set per group of 4
3	**3**	No materials needed	
3	**4**	No Materials	1 per pair of students
3	**5**	3 by 5 blank note cards	3 per pair of students
3	**6**	No materials Needed	
3	**7**	Rhombus Ruler Color paper Tape or Glue stick	1 per pair of students 1 per pair of students 1 per pair of students 1 per pair of students
3	**8**	1 small box of Red Hots® or LemonHeads® candies (place a sticky dot on each box and number the boxes on the sticky dot) small plastic bowls plastic spoon set of colored markers sheets of poster size grid paper or poster size sheets of butcher paper meter sticks	1 per pair of students 2 per pair of students 1 per pair of students 1 per pair of students 2 per group of 4 students 1 per group of 4 students
3	**9**	No materials needed	

SIX	LESSON	ITEM	QUANTITY

GRADE 6 MATERIALS LIST – SIX WEEKS 1-6

WEEKS			
4	**1**	Equations cards (copied on cardstock, cut apart and put in a baggie) Table cards(copied on cardstock, cut apart and put in a baggie) Graph Cards (copied on cardstock, cut apart and put in a baggie) Situation cards (copied on cardstock, cut apart and put in a baggie)	1 set per group of 4 1 set per group of 4 1 set per group of 4 1 set per group of 4
4	**2**	No materials needed	
4	**3**	Linking cubes	30 per group of 4
4	**4**	Butcher paper, colored markers meter stick	1 sheet per group of 4 1 per student 1 per group of 4
4	**5**	Butcher paper, colored markers meter stick	1 sheet per group of 4 1 per student 1 per group of 4
4	**6**	Butcher paper, colored markers meter stick	1 sheet per pair 1 per pair of students 1 per pair of students
4	**7**	3 by 5 blank note cards	2 per pair of students
4	**8**	Triangles (copied on regular paper) scissors	1 set per student 1 pair per student
4	**9**	No materials needed	
5	**1-7**	No materials needed	

Profile Booklets

TEKSING TOWARD STAAR

MATHEMATICS ®

Grade 6

Class Profile for Spiraled Practice

Teacher _____

Class _____

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS CLASS PROFILE

STAAR REPORTING CATEGORY 1: NUMERICAL REPRESENTATIONS AND RELATIONSHIPS													
Standard	**TEKS**	**Student Expectation**	**Class Performance**										
Supporting	6.2(A)	classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers.	21	48	62	88							
Supporting	6.2(B)	identify a number, its opposite, and its absolute value.	26	45	88								
Supporting	6.2(C)	locate, compare, and order integers and rational numbers using a number line.	18	64	93								
Readiness	6.2(D)	order a set of rational numbers arising from mathematical and real-world contexts.	1	3	22	33	39	42	46	51	63	71	
			82	98	101	112	119						
Supporting	6.2(E)	extend representations for division to include fraction notation such as *a/b* represents the same number as $a \div b$ where $b \neq 0$	14	43	84								
Supporting	6.4(C)	give examples of ratios as multiplicative comparisons of two quantities describing the same attribute.	23	41	69	107							
Supporting	6.4(D)	give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients	15	49	83	107							
Supporting	6.4(E)	represent ratios and percents with concrete models, fractions, and decimals.	31	53	91								
Supporting	6.4(F)	represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers	11	27	62	100							
Readiness	6.4(G)	generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money	2	6	19	30	47	50	58	72	75	80	
			86	90	96	105	106						
Supporting	6.5(C)	use equivalent fractions, decimals, and percents to show equal parts of the same whole	13	37	66	102							
Readiness	6.7(A)	generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization	9	17	29	34	57	60	65	67	76	78	
			85	89	109	113	116						
Supporting	6.7(B)	distinguish between expressions and equations verbally, numerically, and algebraically	19	54	97	110							
Supporting	6.7(C)	determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations	10	35	70	111							
Readiness	6.7(D)	generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties	5	7	15	25	38	40	52	58	73	77	
			87	99	114	117							

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS CLASS PROFILE

STAAR REPORTING CATEGORY 2: COMPUTATIONS AND ALGEBRAIC RELATIONSHIPS													
Standard	**TEKS**	**Student Expectation**	**Class Performance**										
Supporting	6.3(A)	recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values.	4	22	61	99	102						
Supporting	6.3(B)	determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one	6	21	39	65	98	104					
Supporting	6.3(C)	represent integer operations with concrete models and connect the actions with the models to standardized algorithms	5	60	62	94							
Readiness	6.3(D)	add, subtract, multiply, and divide integers fluently	20	24	40	45	50	68	74	81	88	101	
			120										
Readiness	6.3(E)	multiply and divide positive rational numbers fluently	19	29	30	44	51	53	72	75	79	92	
			95	103	117								
Supporting	6.4(A)	compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships	18	35	63	86	106						
Readiness	6.4(B)	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates	8	20	28	40	43	49	69	83	89	97	
			108	115									
Supporting	6.5(A)	represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions	9	23	54	67	93	109					
Readiness	6.5(B)	solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models	5	13	27	34	43	48	71	76	80	85	
			90	105	113								
Supporting	6.6(A)	identify independent and dependent quantities from tables and graphs	16	31	58	96	111						
Supporting	6.6(B)	write an equation that represents the relationship between independent and dependent quantities from a table	1	32	52	91	119						
Readiness	6.6(C)	represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$	10	15	26	37	42	46	66	78	87	94	
			114	112									
Supporting	6.9(A)	write one-variable, one-step equations and inequalities to represent constraints or conditions within the problem	11	12	59	70	116						
Supporting	6.9(B)	represent solutions for one-variable, one-step equations and inequalities on number lines	14	36	57	74	100	118					
Supporting	6.9(C)	write corresponding real-world problems given one-variable, one-step equations or inequalities	33	55	64	118							
Readiness	6.10(A)	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts	13	17	25	38	41	47	56	73	77	84	
			99	103	107	110							
Supporting	6.10(B)	determine if the given value(s) make(s) one-variable, one-step equations or inequalities true	2	33	54	63	82	120					

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS CLASS PROFILE

STAAR REPORTING CATEGORY 3: GEOMETRY AND MEASUREMENT												
Standard	**TEKS**	**Student Expectation**	**Class Performance**									
Readiness	6.4(H)	convert units within a measurement system, including the use of proportions and unit rates	1	11	21	36	37	41	56	61	68	84
			86	101	105							
Supporting	6.8(A)	extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle	3	8	28	29	44	45	73	89	113	117
Supporting	6.8(B)	model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes	16	20	24	49	79	92	97			
Supporting	6.8(C)	write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers	12	25	57	77	93	109	119			
Readiness	6.8(D)	determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers	7	17	27	48	53	67	69	81	108	115
			120									
Readiness	6.11(A)	graph points in all four quadrants using ordered pairs of rational numbers	4	9	32	35	51	59	65	71	91	95
			104									

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS CLASS PROFILE

STAAR REPORTING CATEGORY 4: DATA ANALYSIS AND FINANCIAL LITERACY												
Standard	**TEKS**	**Student Expectation**	**Class Performance**									
Supporting	6.12(A)	represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots	7	50	68	86	108					
Supporting	6.12(B)	use the graphical representation of numeric data to describe the center, spread and the shape of the data distribution	10	28	42	66	100	112				
Readiness	6.12(C)	summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread) and use these summaries to describe the center, spread, and shape of data distribution	3	14	26	31	47	59	61	80	81	98
			102	104	118							
Readiness	6.12(D)	summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution	4	18	22	30	46	56	70	79	83	95
			106	115								
Readiness	6.13(A)	interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms and box plots	6	23	52	55	60	64	75	90	94	96
			103	111								
Supporting	6.13(B)	distinguish between situations that yield data with and without variability	2	34	35	44	74	78	82	110		
Supporting	6.14(A)	compare the features and costs of a checking account and a debit card offered by different local financial institutions	76									
Supporting	6.14(B)	distinguish between debit cards and credit cards	8	87								
Supporting	6.14(C)	balance a check register that includes deposits, withdrawals, and transfers	16	72								
Supporting	6.14(E)	describe the information in a credit report and how long it is retained	12	58								
Supporting	6.14(F)	describe the value of credit reports to borrowers and to lenders	39	116								
Supporting	6.14(G)	explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study	32	92								
Supporting	6.14(H)	compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income	38	114								

TEKSING TOWARD STAAR

MATHEMATICS ®

Grade 6

Student Profile for Spiraled Practice

Student _____

Teacher _____

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS STUDENT PROFILE

STAAR REPORTING CATEGORY 1: NUMERICAL REPRESENTATIONS AND RELATIONSHIPS												
Standard	**TEKS**	**Student Expectation**	**Student Performance**									
Supporting	6.2(A)	classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers.	21	48	62	88						
Supporting	6.2(B)	identify a number, its opposite, and its absolute value.	26	45	88							
Supporting	6.2(C)	locate, compare, and order integers and rational numbers using a number line.	18	64	93							
Readiness	6.2(D)	order a set of rational numbers arising from mathematical and real-world contexts.	1	3	22	33	39	42	46	51	63	71
			82	98	101	112	119					
Supporting	6.2(E)	extend representations for division to include fraction notation such as *a/b* represents the same number as $a \div b$ where $b \neq 0$	14	43	84							
Supporting	6.4(C)	give examples of ratios as multiplicative comparisons of two quantities describing the same attribute.	23	41	69	107						
Supporting	6.4(D)	give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients	15	49	83	107						
Supporting	6.4(E)	represent ratios and percents with concrete models, fractions, and decimals.	31	53	91							
Supporting	6.4(F)	represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers	11	27	62	100						
Readiness	6.4(G)	generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money	2	6	19	30	47	50	58	72	75	80
			86	90	96	105	106					
Supporting	6.5(C)	use equivalent fractions, decimals, and percents to show equal parts of the same whole	13	37	66	102						
Readiness	6.7(A)	generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization	9	17	29	34	57	60	65	67	76	78
			85	89	109	113	116					
Supporting	6.7(B)	distinguish between expressions and equations verbally, numerically, and algebraically	19	54	97	110						
Supporting	6.7(C)	determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations	10	35	70	111						
Readiness	6.7(D)	generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties	5	7	15	25	38	40	52	58	73	77
			87	99	114	117						

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS STUDENT PROFILE

STAAR REPORTING CATEGORY 2: COMPUTATIONS AND ALGEBRAIC RELATIONSHIPS												
Standard	**TEKS**	**Student Expectation**	**Student Performance**									
Supporting	6.3(A)	recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values.	4	22	61	99	102					
Supporting	6.3(B)	determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one	6	21	39	65	98	104				
Supporting	6.3(C)	represent integer operations with concrete models and connect the actions with the models to standardized algorithms	5	60	62	94						
Readiness	6.3(D)	add, subtract, multiply, and divide integers fluently	20	24	40	45	50	68	74	81	88	101
			120									
Readiness	6.3(E)	multiply and divide positive rational numbers fluently	19	29	30	44	51	53	72	75	79	92
			95	103	117							
Supporting	6.4(A)	compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships	18	35	63	86	106					
Readiness	6.4(B)	apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates	8	20	28	40	43	49	69	83	89	97
			108	115								
Supporting	6.5(A)	represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions	9	23	54	67	93	109				
Readiness	6.5(B)	solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models	5	13	27	34	43	48	71	76	80	85
			90	105	113							
Supporting	6.6(A)	identify independent and dependent quantities from tables and graphs	16	31	58	96	111					
Supporting	6.6(B)	write an equation that represents the relationship between independent and dependent quantities from a table	1	32	52	91	119					
Readiness	6.6(C)	represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$	10	15	26	37	42	46	66	78	87	94
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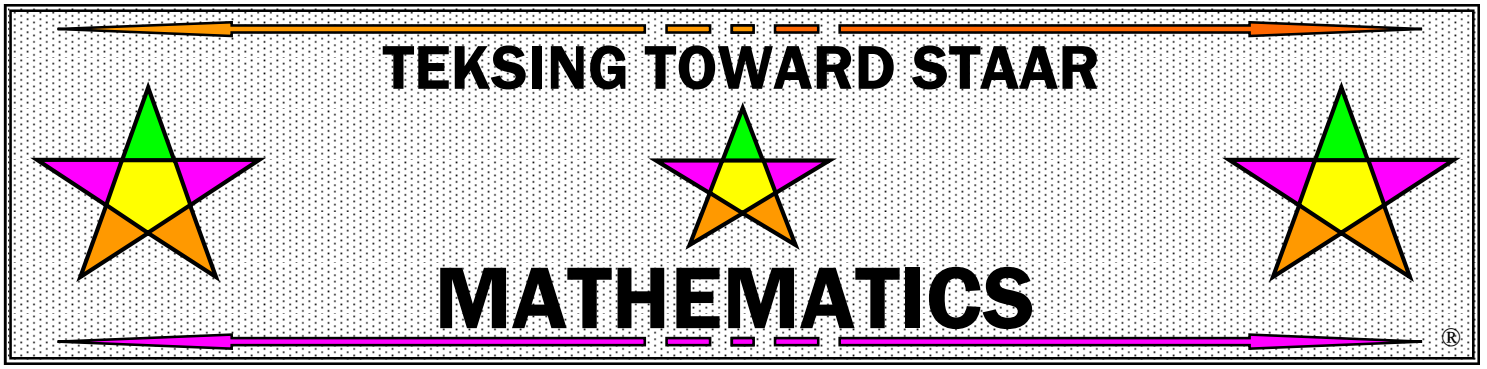
Supporting	6.9(A)	write one-variable, one-step equations and inequalities to represent constraints or conditions within the problem	11	12	59	70	116					
Supporting	6.9(B)	represent solutions for one-variable, one-step equations and inequalities on number lines	14	36	57	74	100	118				
Supporting	6.9(C)	write corresponding real-world problems given one-variable, one-step equations or inequalities	33	55	64	118						
Readiness	6.10(A)	model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts	13	17	25	38	41	47	56	73	77	84
			99	103	107	110						
Supporting	6.10(B)	determine if the given value(s) make(s) one-variable, one-step equations or inequalities true	2	33	54	63	82	120				

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS STUDENT PROFILE

STAAR REPORTING CATEGORY 3: GEOMETRY AND MEASUREMENT												
Standard	**TEKS**	**Student Expectation**	**Student Performance**									
Readiness	6.4(H)	convert units within a measurement system, including the use of proportions and unit rates	1	11	21	36	37	41	56	61	68	84
			86	101	105							
Supporting	6.8(A)	extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle	3	8	28	29	44	45	73	89	113	117
Supporting	6.8(B)	model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes	16	20	24	49	79	92	97			
Supporting	6.8(C)	write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers	12	25	57	77	93	109	119			
Readiness	6.8(D)	determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers	7	17	27	48	53	67	69	81	108	115
			120									
Readiness	6.11(A)	graph points in all four quadrants using ordered pairs of rational numbers	4	9	32	35	51	59	65	71	91	95
			104									

GRADE 6 TEKSING TOWARD STAAR MATHEMATICS STUDENT PROFILE

STAAR REPORTING CATEGORY 4: DATA ANALYSIS AND FINANCIAL LITERACY												
Standard	**TEKS**	**Student Expectation**	**Student Performance**									
Supporting	6.12(A)	represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots	7	50	68	86	108					
Supporting	6.12(B)	use the graphical representation of numeric data to describe the center, spread and the shape of the data distribution	10	28	42	66	100	112				
Readiness	6.12(C)	summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread) and use these summaries to describe the center, spread, and shape of data distribution	3	14	26	31	47	59	61	80	81	98
			102	104	118							
Readiness	6.12(D)	summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution	4	18	22	30	46	56	70	79	83	95
			106	115								
Readiness	6.13(A)	interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms and box plots	6	23	52	55	60	64	75	90	94	96
			103	111								
Supporting	6.13(B)	distinguish between situations that yield data with and without variability	2	34	35	44	74	78	82	110		
Supporting	6.14(A)	compare the features and costs of a checking account and a debit card offered by different local financial institutions	76									
Supporting	6.14(B)	distinguish between debit cards and credit cards	8	87								
Supporting	6.14(C)	balance a check register that includes deposits, withdrawals, and transfers	16	72								
Supporting	6.14(E)	describe the information in a credit report and how long it is retained	12	58								
Supporting	6.14(F)	describe the value of credit reports to borrowers and to lenders	39	116								
Supporting	6.14(G)	explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study	32	92								
Supporting	6.14(H)	compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income	38	114								



TEKS/STAAR-BASED

LESSONS

Grade 6

Scope and Sequence

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 1

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 1 _____ days	**6.2A**/classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers **6.2B**/identify a number, its opposite, and its absolute value	Category 1 Supporting Category 1 Supporting	SP 1 SP 2	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 2 _____ days	**6.2C/**locate, compare, and order integers and rational numbers using a number line	Category 1 Supporting	SP 3 SP 4	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 3 _____ days	**6.4F/**represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these using 10 by 10 grids, strip diagrams, number lines, and numbers **6.4E**/represent ratios and percents with concrete models, fractions and decimals	Category 1 Supporting Category 1 Supporting	SP 5 SP 6	SA 1 SA 2 SA 3 SA 4 SA 5	PS 1 PS 2 PS 3	Homework 1 Homework 2 Homework 3
Lesson 4 _____ days	**6.11A/**graph points in all four quadrants using ordered pairs of rational numbers	Category 3 Readiness	SP 7 SP 8	SA 1 SA 2	PS 1	Homework 1 Homework 2
Lesson 5 _____ days	**6.3E/**multiply and divide rational numbers fluently **6.3B**/determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values that are greater than or less than one	Category 2 Readiness Category 2 Supporting	SP 9 SP 10 SP 11	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 6 _____ days	**6.7B/**distinguish between expressions and equations verbally, numerically, and algebraically **6.7C/**determine if two expressions are equivalent using concrete models, pictorial models, …	Category 1 Supporting Category 1 Supporting	SP 12 SP 13	SA 1 SA 2 SA 3	PS 1 PS 2 PS 3	Homework 1 Homework 2
Lesson 7 _____ days	**6.8A/**extend previous knowledge of triangles and their properties to include the sum of angles of a triangles, the relationship between the lengths of the sides and measures of angles in a triangle, and determining when three lengths form a triangle	Category 3 Supporting	SP 14 SP 15	SA 1 SA 2 SA 3	PS 1 PS 2 PS 3	Homework 1 Homework 2

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 1

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 8 _____ days	**6.10A/**model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts	Category 2 Readiness	SP 16 SP 17	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
	6.10B/determine if the given value(s) make(s) one-variable, one-step equations or inequalities true	Category 2 Supporting				
Lesson 9 _____ days	**6.8C/**write equations that represent problems related to the area of rectangles, … where dimensions are positive rational numbers	Category 3 Supporting	SP 18 SP 19	SA 1	PS 1	Homework 1 Homework 2
	6.8D/determine solutions for problems that represent problems involving the area of rectangles, … where dimensions are positive rational numbers	Category 3 Readiness				
Lesson 10 _____ days	**6.14E/**describe the information in a credit report and how long it is retained	Category 4 Supporting	SP 20	SA 1	PS 1	Homework 1 Homework 2
	6.14F/describe the value of credit reports to borrowers and to lenders	Category 4 Supporting				
	6.14D/ explain why it is important to establish a positive credit history	Not Tested				
Review Assessment 2 days	**Six Weeks 1 Open-Ended Review** **Six Weeks 1 Assessment**					

TEACHER NOTES:

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 2

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 1 _____ days	**6.4G/**generate equivalent forms of fractions, decimals and percents using real-world problems, including problems that involve money **6.5C/**use equivalent fractions, decimals, and percents to show equal parts of the same whole	Category 1 Readiness Category 1 Supporting	SP 21 SP 22	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 2 _____ days	**6.2D**/order a set of rational numbers arising from mathematical and real-world contexts	Category 1 Readiness	SP 23 SP 24	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 3 _____ days	**6.2E/**extend representations for division to include fraction notation such as *a/b* represents the same as $a \div b$, where $b \neq 0$ **6.3A/**recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values	Category 1 Supporting Category 2 Supporting	SP 25 SP 26	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 4 _____ days	**6.3C/**represent integer operations with concrete models and connect the actions with the models to standardized algorithms	Category 2 Supporting	SP 27 SP 28	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 5 _____ days	**6.3D/**add, subtract, multiply, and divide integers fluently	Category 2 Readiness	SP 29 SP 30	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 6 _____ days	**6.5B/**solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models	Category 2 Readiness	SP 31 SP 32	SA 1 SA 2 SA 3 SA 4	PS 1 PS 2 PS 3	Homework 1 Homework 2
Lesson 7 _____ days	**6.4C/**give examples of ratios as multiplicative comparisons of two quantities describing the same attribute **6.4D/**give examples of rates as comparisons by division of two quantities describing the different attributes, including rates as quotients	Category 1 Supporting Category 1 Supporting	SP 33 SP 34	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 8 _____ days	**6.4B/**apply qualitative and quantitative reasoning to solve prediction and comparison of real problems involving rates and ratios	Category 2 Readiness	SP 35	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2

SIX WEEKS 2

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 9 _____ days	**6.4H/**convert units within a measurement system, including the use of proportions and unit rates	Category 3 Readiness	SP 36	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 10 _____ days	**6.12A/**represent numeric data graphically, including dot plots… **6.12B/**use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution **6.13A/**interpret numeric data summarized in dot plots….	Category 4 Supporting Category 4 Supporting Category 4 Readiness	SP 37 SP 38	SA 1 SA 2 SA 3 SA 4	PS 1 PS 2 PS 3	Homework 1 Homework 2
Lesson 11 _____ days	**6.14B/**distinguish between debit cards and credit cards **6.14A/**compare the features and costs of a checking account and a debit card offered by different local financial institutions	Category 4 Supporting Category 4 Supporting	SP 39 SP 40	SA 1	PS 1	Homework 1 Homework 2
Review Assessment 2 days	**Six Weeks 2 Open-Ended Review** **Six Weeks 2 Assessment**					

TEACHER NOTES:

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 3

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 1 _____ days	**6.4A/** compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships	Category 2 Supporting	SP 41 SP 42	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 2 _____ days	**6.6A/**identify independent and dependent quantities from tables and graphs **6.6B/**write an equation that represents the relationship between independent and dependent quantities from a table	Category 2 Supporting Category 2 Supporting	SP 43 SP 44	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 3 _____ days	**6.5A/**represent mathematical and real-world problems involving ratios and rates using scale factors, tables,…	Category 2 Supporting	SP 45 SP 46	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 4 _____ days	**6.6C/**represent a given situation using verbal descriptions, tables… in the form of $y = kx$ or $y = x + b$	Category 2 Readiness	SP 47 SP 48	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 5 _____ days	**6.7A/**generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorizations **6.7D/**generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties **6.7C/**determine if two expressions are equivalent using …. algebraic representations	Category 1 Readiness Category 1 Readiness Category 1 Supporting	SP 49 SP 50 SP 51	SA 1 SA 2 SA 3 SA 4	PS 1 PS 2 PS 3	Homework 1 Homework 2 Homework 3
Lesson 6 _____ days	**6.9A/**write one-variable, one-step equations and inequalities to represent constraints or conditions within a problem **6.9B/**represent solutions for one-variable, one-step equations and inequalities on number lines	Category 2 Supporting Category 2 Supporting	SP 52 SP 53	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 3

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 7 _____ days	**6.8B/**model area formulas for parallelograms, trapezoids, and …. by decomposing and rearranging parts of these shapes **6.8C/**write equations that represent problems related to the area of …, parallelograms, trapezoids, . … where dimensions are positive rational numbers **6.8D/**determine solutions for problems that represent problems involving the area of …., parallelograms, trapezoids, … where dimensions are positive rational numbers	Category 3 Supporting Category 3 Supporting Category 3 Readiness	SP 54 SP 55 SP 56	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 8 _____ days	**6.12A/**represent numeric data graphically, including…stem-and leaf-plots **6.12B/**use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution **6.13A/**interpret numeric data summarized in….stem-and-leaf plots	Category 4 Supporting Category 4 Supporting Category 4 Readiness	SP 57 SP 58	SA 1 SA 2 SA 3 SA 4	PS 1 PS 2 PS 3	Homework 1 Homework 2
Lesson 9 _____ days	**6.12C/**summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and the interquartile range (IQR)(measures of spread) and use these summaries to describe the center, spread and shape of the data distribution	Category 4 Readiness	SP59	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 10 _____ days	**6.14C/**balance a check register that includes deposits, withdrawals, and transfers	Category 4 Supporting	SP 60	SA 1	PS 1	Homework 1 Homework 2
Review Assessment 2 days	**Six Weeks 3 Open-Ended Review** **Six Weeks 3 Assessment**					

TEACHER NOTES:

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 4

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 1 _____ days	**6.6C/**represent a given situation using …, graphs, and equations in the form of $y = kx$ or $y = x + b$ **6.9C/**write corresponding real-world problems given one-variable, one-step equations or inequalities	Category 2 Readiness	SP 61 SP 62 SP 63	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 2 _____ days	**6.5A/**represent mathematical and real-world problems involving ratios and rates using…. graphs, and proportions	Category 2 Supporting	SP 64 SP 65	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 3 _____ days	**6.8C/**write equations that represent problems related …to the volume of right rectangular prisms where dimensions are positive rational numbers **6.8D/**determine solutions for problems involving… the volume of right rectangular prisms where dimensions are positive rational numbers	Category 3 Readiness Category 3 Supporting	SP 66 SP 67	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2 Homework 3
Lesson 4 _____ days	**6.12A/**represent numeric data graphically, including… histograms **6.12B/**use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution **6.13A/**interpret numeric data summarized in….histograms	Category 4 Supporting Category 4 Supporting Category 4 Readiness	SP 68 SP 69 SP 70	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 5 _____ days	**6.12A/**represent numeric data graphically, including…box plots **6.12B/**use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution **6.13A/**interpret numeric data summarized in….box plots	Category 4 Supporting Category 4 Supporting Category 4 Readiness	SP 71 SP 72	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 4

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
Lesson 6 _____ days	**6.12D/**summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category(relative frequency table) and the percent bar graph, and use these summaries to describe data distribution.	Category 4 Readiness	SP 73 SP 74	SA 1 SA 2 SA 3	PS 1 PS 2	Homework 1 Homework 2
Lesson 7 _____ days	**6.13B/**distinguish between situations that yield data with and without variability	Category 4 Supporting	SP 75 SP 76	SA 1 SA 2	PS 1	Homework 1 Homework 2
Lesson 8 _____ days	**6.8B/**model area formulas for … triangles by decomposing and rearranging parts of these shapes **6.8C/**write equations that represent problems related area of … triangles … where dimensions are positive rational numbers **6.8D/**determine solutions for problems involving… the area of triangles… where dimensions are positive rational numbers	Category 3 Supporting Category 3 Supporting Category 3 Readiness	SP 77 SP 78	SA 1 SA 2	PS 1 PS 2	Homework 1 Homework 2
Lesson 9 _____ days	**6.14G/**explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study	Category 4 Supporting	SP 79	SA 1	PS 1	Homework 1
Lesson 10 _____ days	**6.14H/**compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different salaries on lifetime income	Category 4 Supporting	SP 80	SA 1	PS 1	Homework 1
Review Assessment 2 days	**Six Weeks 4 Open-Ended Review** **Six Weeks 4 Assessment**					

TEACHER NOTES:

TEKSING TOWARD STAAR SCOPE AND SEQUENCE
Grade 6 Mathematics

SIX WEEKS 5

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Skills and Concepts Homework
Lesson 1 _____ days	**6.1A/**apply mathematics to problems arising in everyday life, society, and the workplace	Category 1-4 Review of TEKS	SP 81 SP 82	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Lesson 2 _____ days	**6.1B/**use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution	Category 1-4 Review of TEKS	SP 83 SP 84 SP 85	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Lesson 3 _____ days	**6.1C/**select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems	Category 1-4 Review of TEKS	SP 86 SP 87 SP 88 SP 89	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Lesson 4 _____ days	**6.1D/**communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate	Category 1-4 Review of TEKS	SP 90 SP 91 SP 92	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Lesson 5 _____ days	**6.1E/**create and use representations to organize, record, and communicate mathematical ideas	Category 1-4 Review of TEKS	SP 93 SP 94 SP 95	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Lesson 6 _____ days	**6.1F/** analyze mathematical relationships to connect and communicate mathematical ideas	Category 1-4 Review of TEKS	SP 96 SP 97 SP 98	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Lesson 7 _____ days	**6.1G/** display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication	Category 1-4 Review of TEKS	SP 99 SP 100	SA 1 SA 2 SA 3 SA 4	Homework 1 Homework 2 Homework 3 Homework 4
Assessment	**Six Weeks 5 Assessment**				

TEACHER NOTES:

SIX WEEKS 6

Lesson	TEKS-BASED LESSON	STAAR Category Standard	Spiraled Practice	Student Activity	Problem Solving	Skills and Concepts Homework
	NOTE: Begin the Six Weeks with Spiraled Practice 101-120 as a tool to review all TEKS – students should answer the problems on these spirals individually and should follow all testing rules in effect during the administration of the actual STAAR – sharing of student work on these problems should continue the procedure used throughout the school year	Category 1-4 Review of TEKS	SP 101-SP 120			

TEACHER NOTES: