East Penn School District

Elementary Curriculum

A Planned Course Statement
for

5th Grade Mathematics

Length of Period (mins.) 60

Periods per Cycle: 5

Length of Course (yrs.) 1.0

Adopted: 6/28/10

Developed by:

Lisa Evans
Dave Flannery
Erica Petrella
Savina Stengil

Description of Course
Course Title: K-5 Mathematics

Description:

The East Penn School District Mathematics curriculum will balance the learning of both content and process. The content consists of topics in numbers and operations, measurement, geometry, statistics and probability, and algebra. The processes will focus on problem solving, communication, representation, reasoning and proof, and connections. This curriculum will reflect 21st century skills such as collaboration, critical thinking, and the effective use of technology to prepare students to become lifelong learners and contributors to a global society.

Goals:

1. To use technology as a tool to enrich learning and to enhance achievement.

2. To utilize a differentiated project-based approach grounded through student achievement data that reflects the needs of all learners.

3. To provide career exploration opportunities throughout the mathematics curriculum scope and sequence.

4. To provide a rigorous and relevant learning experience that enables students to meet or exceed state standards and to develop 21st century skills.

5. To encourage and foster collaborative home and school relationships that support students' achievement in mathematics.

Requirements:

None

Key to Levels of Achievement (Listed with each learning objective)

Awareness (A):	Students are introduced to concepts, forms, and patterns.
Learning (L):	Students are involved in a sequence of steps and practice activities which involved further development and allow evaluation of process.
Understanding (U):	Students demonstrate ability to apply acquired concepts and skills to individual assignments and projects on an independent level.
Reinforcement (R):	Students maintain and broaden understanding of concepts and skills to accomplish tasks at a greater level of sophistication

Unit	Num	Objective	Level	Content	Evaluation	Standard
I. 2.1. Numbers, Number Systems and Number Relationships	1	The student will apply number patterns to count and compare values of whole numbers, fractions and decimals.	U	• Use expanded notation to represent whole numbers or decimals • Match the standard form to the word form of decimal numbers through the hundredths • Identify the place value of a digit (from millions through hundredths) • Compare whole numbers through 9 digits using the words more, less, equal, least, most, greater than, less than, or the symbols <, >, =. • Compare and/or order decimals through the hundredths. (Limit sets for ordering to no more than 4 numbers.) • Compare proper fractions through 16ths with like and unlike denominators	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.1.5.A. 3.7.7 B. 13.3.5D 13.1.5
	2	The student will use number theory concepts and models to represent or rename whole numbers, fractions and decimals.	U	• Locate/identify integers on a number line (greater than or equal to -20) • Identify negative temperatures on a thermometer (through -20°C or °F) • Use or develop regions and/or sets (e.g. circle graphs, base ten blocks) to model fractions and mixed numbers through hundredths (may include reducing the fractions). • Define/list/identify prime and composite numbers less than or equal to 100. • Define/list/identify factors and/or multiples of a given whole number less than or equal to 50. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.1.5.B. 13.3.5D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
	3	The student will use models to represent the concept of an integer, fraction, decimal or percent.	L/U	• Use expanded notation to represent whole numbers or decimals (whole numbers less than 10,000,000 and decimals through hundredths.) • Match the standard form to the word form of decimal numbers through the hundredths. • Identify the place value of a digit (from millions through hundredths). • Compare whole numbers through 9 digits using the words more, less, most, greater than, less than, or the symbols <, >, =. • Compare and/or order decimals through the hundredths. • Compare proper fractions through the 16^{ths} with like and unlike denominators. • Locate/identify integers on a number line (greater than or equal to -20). • Identify negative temperatures on a thermometer (through -20°C or °F) • Use or develop regions and/or sets (e.g. circle graphs, base ten blocks) to model fractions and mixed numbers through hundredths (may include reducing the fractions). • Define/list/identify prime and composite numbers less than or equal to 100. • Define/list/identify factors and/or multiples of a given whole number less than or equal to 50. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.1.5.C. 13.3.5D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
	4	The student will apply place-value concepts to order and compare decimals and to express whole numbers and decimals in expanded notation.	U	• Use expanded notation to represent whole numbers or decimals (whole numbers less than 10,000,000 and decimals through hundredths.) • Match the standard form to the word form of decimal numbers through the hundredths. • Identify the place value of a digit (from millions through hundredths). • Compare whole numbers through 9 digits using the words more, less, most, greater than, less than, or the symbols <, >, =. • Compare and/or order decimals through the hundredths. • Compare proper fractions through the 16^{ths} with like and unlike denominators. • Locate/identify integers on a number line (greater than or equal to -20). • Identify negative temperatures on a thermometer (through -20°C or °F) • Use or develop regions and/or sets (e.g. circle graphs, base ten blocks) to model fractions and mixed numbers through hundredths (may include reducing the fractions). • Define/list/identify prime and composite numbers less than or equal to 100. • Define/list/identify factors and/or multiples of a given whole number less than or equal to 50. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.1.5.D. 13.3.5.D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
	5	The student will develop and apply number theory concepts (e.g., primes, factors, multiples, composites) to represent numbers in various ways.	L/U	• Use expanded notation to represent whole numbers or decimals (whole numbers less than 10,000,000 and decimals through hundredths.) • Match the standard form to the word form of decimal numbers through the hundredths. • Identify the place value of a digit (from millions through hundredths). • Compare whole numbers through 9 digits using the words more, less, most, greater than, less than, or the symbols <, >, =. • Compare and/or order decimals through the hundredths. • Compare proper fractions through the 16^{ths} with like and unlike denominators. • Locate/identify integers on a number line (greater than or equal to -20). • Identify negative temperatures on a thermometer (through -20°C or °F) • Use or develop regions and/or sets (e.g. circle graphs, base ten blocks) to model fractions and mixed numbers through hundredths (may include reducing the fractions). • Define/list/identify prime and composite numbers less than or equal to 100. • Define/list/identify factors and/or multiples of a given whole number less than or equal to 50. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.1.5.E. 13.3.5D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
	6	The student will understand the concepts of multiplication and division and use the inverse relationships between multiplication and division, to determine unknown quantities in equations.	U	• Solve problems involving addition, subtraction, multiplication, and division of whole numbers (multipliers up to 2 digits – divisors one digit) and decimals including money (answer through hundredths – no divisors with decimals). • Solve problems involving addition and subtraction of fractions (through 16ths – like and unlike denominators – for unlike denominators, the LCD must be one of the given denominators). • Choose the correct operation(s) to solve a problem (no more than 2 operations). • Round whole numbers through millions and decimals through hundredths. • Use estimation to solve problems involving whole numbers and/or decimals (up to 2-digit multipliers, single-digit divisors or multipliers of 10' whole numbers through thousands and decimals through hundredths). • Use addition, subtraction, multiplication, or division to compute accurately without a calculator (up to 2-digit multipliers, single-digit divisors or multipliers of 10' whole numbers through thousands and decimals through hundredths). • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.1.5.F. 3.7.7E 13.3.5D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
II. 2.2. Computation and Estimation	7	The student will multiply and divide single- and double-digit numbers; add and subtract fractions and mixed numbers; add, subtract, multiply, and divide decimals.	U/R	• Solve problems involving addition, subtraction, multiplication, and division of whole numbers (multipliers up to 2 digits – divisors one digit) and decimals including money (answer through hundredths – no divisors with decimals). • Solve problems involving addition and subtraction of fractions (through 16ths – like and unlike denominators – for unlike denominators, the LCD must be one of the given denominators). • Choose the correct operation(s) to solve a problem (no more than 2 operations). • Round whole numbers through millions and decimals through hundredths. • Use estimation to solve problems involving whole numbers and/or decimals (up to 2-digit multipliers, single-digit divisors or multipliers of 10' whole numbers through thousands and decimals through hundredths). • Use addition, subtraction, multiplication, or division to compute accurately without a calculator (up to 2-digit multipliers, single-digit divisors or multipliers of 10' whole numbers through thousands and decimals through hundredths). • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.2.5.B 3.6.7.B 13.3.5D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
	8	The student will estimate results from calculations with basic operations of whole numbers and decimals and check the reasonableness of those estimates.	R	• Use expanded notation to represent whole numbers or decimals (whole numbers less than 10,000,000 and decimals through hundredths.) • Match the standard form to the word form of decimal numbers through the hundredths. • Identify the place value of a digit (from millions through hundredths). • Compare whole numbers through 9 digits using the words more, less, most, greater than, less than, or the symbols <, >, =. • Compare and/or order decimals through the hundredths. • Compare proper fractions through the 16^{ths} with like and unlike denominators. • Locate/identify integers on a number line (greater than or equal to -20). • Identify negative temperatures on a thermometer (through -20°C or °F) • Use or develop regions and/or sets (e.g. circle graphs, base ten blocks) to model fractions and mixed numbers through hundredths (may include reducing the fractions). • Define/list/identify prime and composite numbers less than or equal to 100. • Define/list/identify factors and/or multiples of a given whole number less than or equal to 50. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.2.5.D. 13.3.5D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
III. 2.3. Measurement and Estimation	9	The student will use concrete objects to demonstrate the meaning of measurement quantities (e.g., perimeter, area, weight, capacity).	L/U	• Select appropriate units of measuring weight (mass), capacity, length, and area. • Convert using linear measurements, capacity, weight (mass) within the same system to the unit immediately above or below the given unit - use a conversion chart (metric: mm, cm, m km, mL, L, g, kg; customary: cup, pint, quart, gallon, in., ft,., yd., oz., lb.) • Add or subtract linear measurements (feet and inches0 or units of time (hours and minutes), without having to regroup with subtraction (answers should be in simplest form). • Estimate which polygon (shown on a grid) has a greater perimeter or area • Estimate the area of an irregular figure shown on a grid. • Use a ruler to measure to the nearest 1/8 inch or centimeter • Find the perimeter of a figure drawn and labeled (with the same units throughout). • Find the area of a square or a rectangle (same units throughout – whole numbers only). • Solve problems involving weight, time, temperature, length, and capacity (with the same units throughout – limited to 3 digits). • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.3.5.A. 3.7.7 B 13.1.5
	10	The student will select and use appropriate instruments and units for measuring quantities to a	L/U	• Select appropriate units of measuring weight (mass), capacity, length, and area.	• Teacher Observation • Assignments • Quizzes	2.3.5.B. 3.7.7B 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
		specified level of accuracy.		• Convert using linear measurements, capacity, weight (mass) within the same system to the unit immediately above or below the given unit - use a conversion chart (metric: mm, cm, m km, mL, L, g, kg; customary: cup, pint, quart, gallon, in., ft,., yd., oz., lb.) • Add or subtract linear measurements (feet and inches0 or units of time (hours and minutes), without having to regroup with subtraction (answers should be in simplest form). • Estimate which polygon (shown on a grid) has a greater perimeter or area • Estimate the area of an irregular figure shown on a grid. • Use a ruler to measure to the nearest 1/8 inch or centimeter • Find the perimeter of a figure drawn and labeled (with the same units throughout). • Find the area of a square or a rectangle (same units throughout – whole numbers only). • Solve problems involving weight, time, temperature, length, and capacity (with the same units throughout – limited to 3 digits). • Discuss possible careers that would utilize these skills	• Tests • Alternative Assessments	
	11	The student will calculate perimeter and area, and sums and differences of measurements.	L/U	• Select appropriate units of measuring weight (mass), capacity, length, and area.	• Teacher Observation • Assignments • Quizzes • Tests	2.3.5.C. 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Convert using linear measurements, capacity, weight (mass) within the same system to the unit immediately above or below the given unit - use a conversion chart (metric: mm, cm, m km, mL, L, g, kg; customary: cup, pint, quart, gallon, in., ft,., yd., oz., lb.) • Add or subtract linear measurements (feet and inches0 or units of time (hours and minutes), without having to regroup with subtraction (answers should be in simplest form). • Estimate which polygon (shown on a grid) has a greater perimeter or area • Estimate the area of an irregular figure shown on a grid. • Use a ruler to measure to the nearest 1/8 inch or centimeter • Find the perimeter of a figure drawn and labeled (with the same units throughout). • Find the area of a square or a rectangle (same units throughout – whole numbers only). • Solve problems involving weight, time, temperature, length, and capacity (with the same units throughout – limited to 3 digits). • Discuss possible careers that would utilize these skills	• Alternative Assessments	
	12	The student will perform basic conversions within a system.	L	• Select appropriate units of measuring weight (mass), capacity, length, and area.	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.3.5.D. 3.7.7 A 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Convert using linear measurements, capacity, weight (mass) within the same system to the unit immediately above or below the given unit - use a conversion chart (metric: mm, cm, m km, mL, L, g, kg; customary: cup, pint, quart, gallon, in., ft,., yd., oz., lb.) • Add or subtract linear measurements (feet and inches0 or units of time (hours and minutes), without having to regroup with subtraction (answers should be in simplest form). • Estimate which polygon (shown on a grid) has a greater perimeter or area • Estimate the area of an irregular figure shown on a grid. • Discuss possible careers that would utilize these skills		
	13	The student will estimate and verify measurements of length, perimeter, area, volume, capacity, temperature, time, weight, and angles.	L/U	• Select appropriate units of measuring weight (mass), capacity, length, and area. • Convert using linear measurements, capacity, weight (mass) within the same system to the unit immediately above or below the given unit - use a conversion chart (metric: mm, cm, m km, mL, L, g, kg; customary: cup, pint, quart, gallon, in., ft,., yd., oz., lb.) • Add or subtract linear measurements (feet and inches0 or units of time (hours and minutes), without having to regroup with subtraction (answers should be in simplest form).	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.3.5.F. 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Estimate which polygon (shown on a grid) has a greater perimeter or area • Estimate the area of an irregular figure shown on a grid. • Discuss possible careers that would utilize these skills		
IV. 2.4. Mathematical Reasoning and Connections	14	The student will use models, number facts, properties and relationships to draw conclusions and explain reasons for conclusions.	U	• Use t-charts • Use explanations • Use vocabulary • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.4.5.A. 13.1.5
	15	The student will use if…then statements to express conditional relationships.	L	• Explain cause and effect relationships • Apply real world situations • Analyze patterns • Use function table • Solve equations with a variable • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.4.5.B 13.1.5
V. 2.5. Mathematical Problem Solving and Communication	16	The student will develop a plan to analyze a problem, identify the information needed to solve the problem, carry out the plan, check whether an answer makes sense and explain how the problem was solved in grade appropriate contexts.	U	• Solve problems involving addition, subtraction, multiplication, and division of whole numbers (multipliers up to 2 digits – divisors one digit) and decimals including money (answer through hundredths – no divisors with decimals). • Solve problems involving addition and subtraction of fractions (through 16ths – like and unlike denominators – for unlike denominators, the LCD must be one of the given denominators). • Choose the correct operation(s) to solve a problem (no more than 2 operations).	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.5.5.A. 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Discuss possible careers that would utilize these skills		
	17	The student will use appropriate mathematical terms, vocabulary, language, symbols and graphs to explain clearly and logically solutions to problems.	L/U	• Use pictures, diagrams • Use vocabulary • Use problem solving strategies • Use think-alouds • Use graphic organizers (T-charts, Four square, etc…) • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.5.5.B. 13.1.5
VI. 2.6. Statistics and Data Analysis	18	The student will gather data from surveys and observations from sources outside the classroom or home.	U	• Use note taking skills • Use frequency tables • Apply real world situations • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.6.5.A. 3.7.7.C,D 13.1.5
	19	The student will use pictures, tallies, tables, charts, bar graphs, line graphs, diagrams, and graphs to organize, display, and analyze data.	L/U	• Display and/or interpret data shown in tallies, tables, charts, pictographs, bar graphs, line graphs, and using a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.6.5.B. 3.7.7.C,D 13.1.5
	20	The student will calculate mean and range, identify the median and the mode of a set of data, and use these quantities to describe the data.	L/U	• Determine the mean/average (answer is a whole number), median (answer is a whole number or average of 2 numbers), and a range of data (up to 10 numbers). • Identify the mode in a set of data (up to 10 numbers). • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.6.5.C 3.7.7C,D 13.1.5
	21	The student will compare data using multiple categories displayed in a graph.	U/R	• Reading a graph • Site details	• Teacher Observation • Assignments • Quizzes	2.6.5.D. 3.7.7.C,D 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Create or answer questions based on data displayed • Use think-alouds • Discuss possible careers that would utilize these skills	• Tests • Alternative Assessments	
	22	The student will determine the reasonableness of a statement based on a comparison to data displayed in a graph and summarized by numerical measures.	U	• Use think-alouds • Use open-ended prompts • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.6.5.E. 13.1.5
VII. 2.7. Probability and Predictions	23	The student will predict and calculate the likelihood of simple events.	L/U	• Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible (information could be represented by pictographs, bar graphs, charts, tables, and/or spinners). • Determine the probability of an outcome (e.g. a coin toss, a roll of a number cube) and express as a fraction without reduction. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.7.5.A 13.1.5
	24	The student will predict and determine why some outcomes of a particular event are certain, more likely, less likely, equally likely or impossible.	L/U	• Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible (information could be represented by pictographs, bar graphs, charts, tables, and/or spinners). • Determine the probability of an outcome (e.g. a coin toss, a roll of a number cube) and express as a fraction without reduction. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.7.5.B 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
	25	The student will express probabilities as fractions and/or decimals.	L/U	• Describe ratios • Evaluate conversions • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.7.5.C. 13.1.5
	26	The student will list all possible combinations and arrangements of outcomes of an experiment (i.e. tree diagrams, matrices, etc.)	L/U	• Use think-alouds • Use visual aids and diagrams • Use manipulatives (dice, spinners, bag of marbles, etc) • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.7.5.D. 13.1.5
	27	The student will compare predictions based on theoretical probability and experimental results.	L	• Use think-alouds • Use visual aids and diagrams • Use manipulatives (dice, spinners, bag of marbles, etc) • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.7.5.E. 13.1.5
VIII. 2.8. Algebra and Functions	28	The student will use the concept of equality to demonstrate understanding of the distributive property.	L/U	• Use vocabulary • Apply multiplication and addition • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.8.5.A. 13.1.5
	29	The student will select and use strategies, including concrete objects, to solve number sentences (equations and inequalities) and explain the method of solution.	L/U	• Solve for a missing number (blank, question mark, variable) in an equation involving a single operation whole numbers only. • Match realistic situation to an equation, expression, inequality (<, >, =), table or graph (variable must be isolated, e.g. 17 + 9 = n). • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.8.5.B. 13.1.5
	30	The student will recognize, describe, extend, create, replicate, and form a rule for a variety of patterns, sequences, and relationships verbally, numerically, symbolically, and	U	• Extend or find a missing element in a numerical or simple geometric pattern (+, -, x, or ÷ of whole numbers). Pattern must show 3 repetitions).	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.8.5.C 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
		graphically.		• Create or replicate a numerical or simple geometric pattern (+, -, x, or ÷ of whole numbers may be used). • Form a rule based on a given pattern, or illustrate a pattern based on a given rule (+, -, x, or ÷ of whole numbers may be used). Patterns must show 3 repetitions. • Discuss possible careers that would utilize these skills		
	31	The student will determine a functional rule from a table or graph.	U	• Extend or find a missing element in a numerical or simple geometric pattern (+, -, x, or ÷ of whole numbers). Pattern must show 3 repetitions). • Create or replicate a numerical or simple geometric pattern (+, -, x, or ÷ of whole numbers may be used). • Form a rule based on a given pattern, or illustrate a pattern based on a given rule (+, -, x, or ÷ of whole numbers may be used). Patterns must show 3 repetitions. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.8.5.D. 13.1.5
	32	The student will use concrete objects and combinations of symbols and numbers to create expressions, equations, and inequalities that model mathematical situations.	U	• Use manipulatives • Determine variables • Use vocabulary • Evaluate open-ended questions • Use think-alouds • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.8.5.E. 13.1.5
	33	The student will describe data represented in equations, inequalities, tables, or graphs and/or create a story that matches that data.	U/R	• Solve for a missing number (blank, question mark, variable) in an equation involving a single operation whole numbers only.	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.8.5.F. 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Match realistic situation to an equation, expression, inequality (<, >, =), table, graph (variable must be isolated, e.g. 17 + 39 = n). • Discuss possible careers that would utilize these skills		
IX. 2.9. Geometry	34	The student will identify, describe, and define 1-, 2-, and 3-dimensional shapes and their related parts, and classify and compare 2- and 3- dimensional shapes on the basis of their properties.	L/U	• Identify and/or classify cubes, rectangular prisms or pyramids using faces, vertices, and edges. • Identify and/or describe properties of all types of quadrilaterals (parallelogram, rectangle, rhombus, square, trapezoid). • Identify, draw, and/or label points, lines, line segments and rays. • Draw or identify a translation (slide), reflection (flip), or rotation (turn) of a 2-dimensional polygon. • Identify the number of lines of symmetry and/or draw all lines in a two-dimensional polygon. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.9.5.A. 3.6.7B 13.1.5
	35	The student will predict and describe the result of a translation (slide), rotation (turn), or reflection (flip) of a 2-dimensional shape.	L/U	• Draw or identify a translation (slide), reflection (flip), or rotation (turn) of a 2-dimensional polygon. • Identify the number of lines of symmetry and/or draw all lines in a two-dimensional polygon. • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.9.5.B 13.1.5.
	36	The student will identify location of points with fractional or decimal coordinates on a number	R	• Describe coordinate plane • Use vocabulary • Apply fractions skills	• Teacher Observation • Assignments • Quizzes	2.9.5.C. 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
		line or on a 2- dimensional coordinate system.		• Apply decimals skills • Discuss possible careers that would utilize these skills	• Tests • Alternative Assessments	
X. 2.10. Trigonometry	37	The student will identify and compare parts of right triangles, including right angles, acute angles, hypotenuses, and legs.	L	• Use vocabulary • Use manipulatives • Model protractor use • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.10.5.A 13.1.5
XI. 2.11. Concepts of Calculus	38	The student will make comparisons of numbers (e.g., more, less, same, least, most, greater than, less than).	U	• Use expanded notation to represent whole numbers or decimals • Match the standard form to the word form of decimal numbers through the hundredths • Identify the place value of a digit (from millions through hundredths) • Compare whole numbers through 9 digits using the words more, less, equal, least, most, greater than, less than, or the symbols <, >, =. • Compare and/or order decimals through the hundredths. (Limit sets for ordering to no more than 4 numbers.) • Compare proper fractions through 16ths with like and unlike denominators • Locate/identify integers on a number line (greater than or equal to -20) • Identify negative temperatures on a thermometer (through -20°C or °F)	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.11.5.A 13.1.5

Unit	Num	Objective	Level	Content	Evaluation	Standard
				• Use or develop regions and/or sets (e.g. circle graphs, base ten blocks) to model fractions and mixed numbers through hundredths (may include reducing the fractions). • Define/list/identify prime and composite numbers less than or equal to 100. • Define/list/identify factors and/or multiples of a given whole number less than or equal to 50. • Discuss possible careers that would utilize these skills		
	39	The student will describe the relationship between rates of change and another variable (e.g., time, temperature).	A	• Solve equations • Evaluate open-ended questions • Use problem solving strategies • Use graphic organizers • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.11.5.B. 13.1.5
	40	The student will estimate areas and volumes of shapes and solids as the sums of areas of tiles and volumes of cubes.	U/R	• Use vocabulary • Apply formulas • Use manipulatives • Apply real life situations • Discuss possible careers that would utilize these skills	• Teacher Observation • Assignments • Quizzes • Tests • Alternative Assessments	2.11.5.C. 13.1.5