

CARLISLE AREA SCHOOL DISTRICT

Carlisle, PA 17013

Math

Grade 3

Date of Board Approval: **August 16, 2007**

**CARLISLE AREA SCHOOL DISTRICT
PLANNED INSTRUCTION COVER PAGE**

Title of Course: Math Subject Area: Math Grade Level: 3

Course Length: (Semester/Year): Year Duration: 20-25 minutes Frequency: 5 times per cycle

Prerequisites: Not Applicable Credit: Not Applicable Level: Not Applicable

Course Description/Objectives: The district shall provide for attainment of the academic standards per Chapter 4, Section 4.12. Each student shall demonstrate proficiency in the following area: numbers, number systems and number relationships; computation and estimation; measurement and estimation; mathematical reasoning and connections, mathematical problem solving and communication; statistics and data analysis; probability and predictions; algebra and functions; geometry; trigonometry; and concepts of calculus.

Major Text(s)/Resources:

Harcourt Math 2002

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Strand 2.1 Numbers, Number Systems and Number Relationships		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Count using whole numbers (to 10,000) and by 2's, 3's, 5's, 10's, 25's and 100's.	<ul style="list-style-type: none"> Count using whole numbers (to 10,000) by: 1's (e.g., 8987,----,----,8990), 2's, 3's, 5's, 10's, 25's, 100's (all M) (PSSA). 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Use whole numbers and fractions to represent quantities	<ul style="list-style-type: none"> Use whole numbers to represent quantities. (R) Use fractions ($\frac{1}{2}$ (R), $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ (M)) to represent quantities. Use mixed numbers to represent quantities. (I) 		
C. Represent equivalent forms of the same number through the use of concrete objects, drawings, word names and symbols.	<ul style="list-style-type: none"> Represent equivalent forms of the same number (1-10,000) through the use of: concrete objects (R), drawings (R), word names (M), symbols. (M) (PSSA). 		
C. Represent equivalent forms of the same number through the use of concrete objects, drawings, word names and symbols.	<ul style="list-style-type: none"> Write several number sentences that represent a given number (1-10,000).(M) 		
D. Use drawings, diagrams or models to show the concept of fraction as part of a whole.	<ul style="list-style-type: none"> Use models (geometric shapes) to show fractions as part of a whole: (M) Identify a fraction of a geometric shape, Identify a fraction of a set (PSSA). 		

Strand 2.1 Numbers, Number Systems and Number Relationships		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
D. Use drawings, diagrams or models to show the concept of fraction as part of a whole.	<ul style="list-style-type: none"> • Use drawings or diagrams to show fractions as part of a whole. (M) (PSSA) • Identify the numerator and denominator of a fraction. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
E. Count, compare and make change using a collection of coins and one-dollar bills.	<ul style="list-style-type: none"> • Match the name and value of a penny, nickel, dime, and quarter. (R) • Match the name and value of a half-dollar, one-dollar, and five-dollar bill. (M) 		
E. Count, compare and make change using a collection of coins and one-dollar bills.	<ul style="list-style-type: none"> • Count a collection of coins and one-dollar bills. (M) (PSSA) • Compare collections of coins and one-dollar bills. (M) (PSSA) • Make change up to \$5.00. (M) (PSSA) 		
F. Apply number patterns (even and odd) and compare values of numbers on the hundred boards.	<ul style="list-style-type: none"> • Apply number patterns (even and odd). (M) (PSSA) • Compare values of numbers on a hundred chart. (M) 		
G. Use concrete objects to count, order and group.	<ul style="list-style-type: none"> • Use concrete objects to count. (R) • Classify groups by the number of items in each group. (R) 		

Strand 2.1 Numbers, Number Systems and Number Relationships		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
H. Demonstrate an understanding of one-to-one correspondence.	<ul style="list-style-type: none"> • Demonstrate one-to-one correspondence. (R) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
I. Apply place –value concepts and numeration to counting, ordering and grouping.	<ul style="list-style-type: none"> • Apply place-value concepts and numeration to counting, ordering and grouping to 10,000. (M) (PSSA) • Write numbers in expanded notation to 5 places. (M) 		
I. Apply place –value concepts and numeration to counting, ordering and grouping.	<ul style="list-style-type: none"> • Read and use whole numbers through 10,000. (M) (PSSA) • Apply knowledge of place value to read and write numbers in expanded form (1000+100+10+1=1111). (M) 		
J. Estimate, approximate, round or use exact numbers as appropriate.	<ul style="list-style-type: none"> • Round numbers to the nearest 10 or 100 or 1000 (up to 9000). (PSSA) 		
K. Describe the inverse relationship between addition and subtraction.	<ul style="list-style-type: none"> • Describe and use the commutative property of addition. (M) • Describe and use the commutative property of multiplication. (M) 		

Strand 2.1 Numbers, Number Systems and Number Relationships	Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment
K. Describe the inverse relationship between addition and subtraction.	<ul style="list-style-type: none"> • Write fact families. (R) • Demonstrate the inverse relationship between addition and subtraction using fact families. 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3
L. Demonstrate knowledge of basic facts in four basic operations.	<ul style="list-style-type: none"> • Demonstrate knowledge of basic facts in addition. (R) • Demonstrate knowledge of basic facts in subtraction, multiplication (0-10) and division (in a reasonable amount of time). (M) (PSSA) 	
L. Demonstrate knowledge of basic facts in four basic operations.	<ul style="list-style-type: none"> • Apply addition strategies of counting on, making ten and adding doubles. (M) • Apply subtraction strategies of counting up. (M) 	
L. Demonstrate knowledge of basic facts in four basic operations.	<ul style="list-style-type: none"> • Add fractions having like denominators with sums less than one. (R) 	

Strand 2.2 Computation and Estimation		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Apply addition and subtraction in situations involving concrete objects.	<ul style="list-style-type: none"> Apply addition situations using concrete objects. (R) Apply subtraction situations using concrete objects. (R) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Solve single and double-digit addition and subtraction problems with regrouping in vertical form.	<ul style="list-style-type: none"> Add 2-digit numbers with regrouping in vertical form and horizontal form. (R) (PSSA) Add 3-digit numbers with regrouping in vertical form and horizontal form. (M) (PSSA) 		
B. Solve single and double-digit addition and subtraction problems with regrouping in vertical form.	<ul style="list-style-type: none"> Subtract 2- and 3-digit numbers with regrouping in vertical form and horizontal form. (M) (PSSA) Solve addition and subtraction problems that involve zero. (M) (PSSA) 		
B. Solve single and double-digit addition and subtraction problems with regrouping in vertical form.	<ul style="list-style-type: none"> Check subtraction with addition. (M) Explain and use the associative property of addition (e.g., column addition). (I) 		
C. Demonstrate the concept of multiplication as repeated addition.	<ul style="list-style-type: none"> Demonstrate the concept of multiplication using the following strategies: repeated addition, doubling, and skip counting. (M) (PSSA) 		

Strand 2.2 Computation and Estimation		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
C. Demonstrate the concept of multiplication as repeated addition.	<ul style="list-style-type: none"> • Demonstrate concept of arrays: Identify, make and describe arrays in terms of factors and products. (M) (PSSA), use arrays to write multiplication sentences. (M), (continued) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
C. Demonstrate the concept of multiplication as repeated addition.	<ul style="list-style-type: none"> • Recognize that the product of 1 and any number is that number. (M), explain the zero property. (M) 		
C. Demonstrate the concept of multiplication as repeated addition.	<ul style="list-style-type: none"> • Multiply using 1-digit multipliers. (M) • Multiply mentally with multiples of 10. (M) 		
C. Demonstrate the concept of multiplication as repeated addition.	<ul style="list-style-type: none"> • Explain and use the associative property of multiplication. (M) • Solve problems involving multiplication through the 9's tables through 9 x 5. 		
D. Demonstrate the concept of division as repeated subtraction and as sharing.	<ul style="list-style-type: none"> • Demonstrate the concept of division as repeated subtraction and as sharing. (M) • Recognize and describe the relationship between multiplication and division using fact families. (M) 		

Strand 2.2 Computation and Estimation		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
D. Demonstrate the concept of division as repeated subtraction and as sharing.	<ul style="list-style-type: none"> Solve division problems with remainders. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
E. Use estimation skills to arrive at conclusions.	<ul style="list-style-type: none"> Use rounding skills to arrive at conclusions. (M) (PSSA) 		
F. Determine the reasonableness of calculated answers.	<ul style="list-style-type: none"> Determine the reasonableness of calculated answers in numbers up to hundreds. (M) 		
G. Explain addition and subtraction algorithms with regrouping.	<ul style="list-style-type: none"> The student will explain addition and subtraction algorithms with regrouping, both orally or in written form up to hundreds. (M) 		

Strand 2.3 Measurement and Estimation		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Compare measurable characteristics of different objects on the same dimensions.	<ul style="list-style-type: none"> Compare measurable characteristics of different objects on the same dimensions (e.g., time, temperature, area, length, weight, capacity, perimeter, and volume). (M) (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
A. Compare measurable characteristics of different objects on the same dimensions.	<ul style="list-style-type: none"> Order objects on basis of weight, capacity, and length. (M) (PSSA) 		
B. Determine the measurement of objects with non-standard and standard units	<ul style="list-style-type: none"> Measure to the nearest $\frac{1}{2}$ inch or centimeter. (M) (PSSA) Read and write temperature to nearest degree (Fahrenheit and Celsius). (M) 		
C. Determine and compare elapsed times.	<ul style="list-style-type: none"> Find elapsed time to increments of 5 minutes (limited to 2 adjacent hours) (PSSA) Identify times of the day and night as A.M. and P.M. (PSSA) 		
C. Determine and compare elapsed times.	<ul style="list-style-type: none"> Determine elapsed time between two dates on a calendar. (M) 		

Strand 2.3 Measurement and Estimation		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
D. Tell time (analog and digital) to the minute.	<ul style="list-style-type: none"> • Read and write time to the minute on digital and analog clocks. (M) (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
E. Determine the appropriate unit of measure.	<ul style="list-style-type: none"> • Determine the appropriate unit of measure, using US customary or metric units (meters, yards, kilometers, miles, ounces, pounds, tons, grams, kilograms). (M) (PSSA) 		
F. Use concrete objects to determine area and perimeter.	<ul style="list-style-type: none"> • Measure area by counting or multiplying squares. (M) (PSSA) • Measure perimeter and area of rectangles and write dimensions using correct labels. (M) (PSSA) 		
G. Estimate and verify measurements.	<ul style="list-style-type: none"> • Estimate and verify measurements (lengths). (R) (PSSA) • Estimate and verify measurements (weights and capacity). (I) (PSSA) 		
G. Estimate and verify measurements.	<ul style="list-style-type: none"> • Estimate line segments to the nearest $\frac{1}{2}$ inch; to the nearest centimeter and verify by measuring the line. (M) (PSSA) 		

Strand 2.3 Measurement and Estimation	Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment
H. Demonstrate that a single object has different attributes that can be measured in different ways (e.g., length, mass, weight, time, area, temperature, capacity and perimeter.)	<ul style="list-style-type: none"> Select appropriate units of measure for length, weight and capacity. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3

Strand 2.4 Mathematical Reasoning and Connections		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Make, check and verify predictions about the quantity, size and shape of objects and groups of objects.	<ul style="list-style-type: none"> • Verbalize estimation strategies. (I) • Compare estimations and results. (I) • Revise estimates. (I) • Use a calculator to check estimation. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Use measurements to determine the geography of the school building.	<ul style="list-style-type: none"> • Use measurements in everyday situations (e.g., determine the size of the gym, the length, width, height of hallways or classroom, size of doorways). (M) 		

Strand 2.5 Mathematical Problem Solving and Communication		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Use appropriate problem-solving strategies such as guess and check and working backwards.	<ul style="list-style-type: none"> Use appropriate problem-solving strategies: Guess and check (M), Work backwards (M), Draw pictures or diagrams (M), Make lists, charts, or tables (M), Use patterns. (R) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Determine when sufficient information is present to solve a problem and explain how to solve a problem.	<ul style="list-style-type: none"> Determine when sufficient information is present to solve a problem. (M) Explain how to solve a problem and show the process. (M) 		
C. Select and use an appropriate method, materials and strategy to solve problems, including mental mathematics, paper and pencil, and concrete objects.	<ul style="list-style-type: none"> Select and use appropriate method to solve problems: Mental math (M), Paper and pencil (M), Concrete objects (M), Choose the correct operation(s) to solve word problem (no more than 2 operations using +, - and/or x). 		

Strand 2.6 Statistics and Data Analysis		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Gather, organize and display data using pictures, tallies, charts, bar graphs and pictographs.	<ul style="list-style-type: none"> • Make & interpret a chart. (M) (PSSA) • Make a pictograph. (M) (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Formulate and answer questions based on data shown on graphs.	<ul style="list-style-type: none"> • Formulate questions and draw conclusions from charts, pictographs, and bar graphs and explain them orally and in writing. (M) (PSSA) 		
C. Predict the likely number of times a condition will occur based on analyzed data.	<ul style="list-style-type: none"> • The student will make predictions about the probability of events occurring based on analyzed data. (M) (PSSA) 		
D. Form and justify an opinion on whether a given statement is reasonable based on a comparison to data.	<ul style="list-style-type: none"> • Form and justify an opinion on whether a given statement is reasonable based on a comparison of data. (M) 		

Strand 2.7 Probability and Predictions		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Predict and measure the likelihood of events and recognize that the results of an experiment may not match predicted outcomes.	<ul style="list-style-type: none"> Determine if an event is equally likely or not equally likely to occur. (M) (PSSA) Recognize that the results of an experiment may not match predicted outcomes. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Design a fair and an unfair spinner.	<ul style="list-style-type: none"> Design a fair and unfair spinner. (M) 		
C. List or graph the possible results of an experiment.	<ul style="list-style-type: none"> The student will list or graph the possible results of an experiment and explain the data. (M) 		
D. Analyze data using the concepts of largest, smallest, most often, least often and middle.	<ul style="list-style-type: none"> The student will use the concept of middle to analyze data. (M) 		

Strand 2.8 Algebra and Functions		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Recognize, describe, extend, create and replicate a variety of patterns including attribute, activity, number and geometric patterns.	<ul style="list-style-type: none"> • Introduce function tables in addition and multiplication tables grade appropriate. (I) • Investigate and create arrays. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
A. Recognize, describe, extend, create and replicate a variety of patterns including attribute, activity, number and geometric patterns.	<ul style="list-style-type: none"> • Describe attributes of attribute blocks, geometric figures, etc. • Investigate, create, and extend patterns. (M) 		
A. Recognize, describe, extend, create and replicate a variety of patterns including attribute, activity, number and geometric patterns.	<ul style="list-style-type: none"> • Extend or find a missing element in a pattern of numbers or shapes (pattern must show 3 repetitions-if multiples are used, limit to 2, 3, or 5.) (PSSA) 		
A. Recognize, describe, extend, create and replicate a variety of patterns including attribute, activity, number and geometric patterns.	<ul style="list-style-type: none"> • Identify/describe the rule for a pattern shown (pattern must show 3 repetitions – if multiples are used, limit to 1, 3, or 5.) (PSSA) 		
B. Use concrete objects and trial and error to solve number sentences and check whether solutions are sensible and accurate.	<ul style="list-style-type: none"> • Use concrete objects and trial and error to solve number sentences involving addition, subtraction, multiplication, and division. (M) • Check to see if solutions are sensible and accurate. (M) 		

Strand 2.8 Algebra and Functions		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
C. Substitute a missing addend in a number sentence.	<ul style="list-style-type: none"> Substitute a missing addend or in a number sentence beyond 20. (M). 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
C. Substitute a missing addend in a number sentence.	<ul style="list-style-type: none"> Find a missing number that makes a number sentence true (1 digit or 2 digit numbers up to 18 using +, - or x through 9 x 5.) (PSSA) 		
C. Substitute a missing addend in a number sentence.	<ul style="list-style-type: none"> Identify the missing symbol (+, -, =, <, >) that makes a number sentence true. (PSSA) 		
D. Create a story to match a given combination of symbols and numbers.	<ul style="list-style-type: none"> The student will create and solve a story to match a given combination of symbols and numbers. (M) (+, -, x, <, >, =) (PSSA) 		
E. Use concrete objects and symbols to model the concepts of variables, expressions, equations and inequalities.	<ul style="list-style-type: none"> The student will use concrete objects and symbols to model the concepts of variables, expressions, equations and inequalities. (M) 		

Strand 2.8 Algebra and Functions		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
F. Explain the meaning of solutions and symbols.	<ul style="list-style-type: none"> Explain the meaning of solutions and symbols. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
F. Explain the meaning of solutions and symbols.	<ul style="list-style-type: none"> Compare numbers reading the symbols $>$, $<$, $=$, \neq (e.g., Use the words greater than, less than, equal to and not equal to (to thousands). (M) (PSSA) 		
F. Explain the meaning of solutions and symbols.	<ul style="list-style-type: none"> Identify the ordinal position of an object (e.g., 1st, 2nd, and 3rd). (M) Read a mathematical number sentence created with $<$, $>$ and $=$. (R) 		
F. Explain the meaning of solutions and symbols.	<ul style="list-style-type: none"> Write a mathematical number sentence created with $<$, $>$ and $=$ for 2-digit numbers. (R) 		
G. Gather information and display it in the form of a table or a chart.	<ul style="list-style-type: none"> Gather information and display it in the form of a table or a chart.(M) 		

Strand 2.8 Algebra and Functions		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
H. Describe and interpret the data shown in tables and charts.	<ul style="list-style-type: none"> Describe and interpret the data shown in tables and charts. (M) (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
I Translate information from one type of display to another.	<ul style="list-style-type: none"> Translate information from one type of display to another (e.g. convert tally chart to bar graph). Limit to tally charts, bar graphs, tables and pictographs. (PSSA) 		
J. Demonstrate simple function rules.	<ul style="list-style-type: none"> Demonstrate simple function rules (one step functions +, -, x). (M) (PSSA) 		
J. Demonstrate simple function rules.	<ul style="list-style-type: none"> Determine the missing element in a function table (functions may use +, -, or x; allowable multiples are 2, 3, or 5.) Tables must have 3 Ins and 3OUTs listed. (PSSA) 		
K. Analyze simple functions and relationships and locate points on a simple grid.	<ul style="list-style-type: none"> Analyze simple functions and relationships. (e.g., What do you do to 3 to get 6?) (M) (PSSA) Locate points on a simple grid. (M) (PSSA) 		

Strand 2.9 Geometry		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Name and label geometric shapes in two and three dimensions	<ul style="list-style-type: none"> Name and label geometric shapes in two and three-dimensions. (R) Circle/sphere, Square/cube, Triangle/pyramid, Rectangle/prism. (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
A. Name and label geometric shapes in two and three dimensions	<ul style="list-style-type: none"> Describe the difference between an open figure and a closed figure. (R) Explain the number of sides and corners of shapes. (R) 		
B. Build geometric shapes using concrete objects	<ul style="list-style-type: none"> Build geometric shapes using concrete objects. (R) 		
C. Draw two and three-dimensional geometric shapes and construct rectangles, squares and triangles on the geoboard and on graph paper satisfying specific criteria.	<ul style="list-style-type: none"> Draw two (R) and three-dimensional geometric shapes. (M) Construct rectangles, squares, and triangles and on graph paper satisfying specific criteria. (M) 		
C. Draw two and three-dimensional geometric shapes and construct rectangles, squares and triangles on the geoboard and on graph paper satisfying specific criteria.	<ul style="list-style-type: none"> Identify parallel, perpendicular, line segments, and congruent lines. (M) 		

Strand 2.9 Geometry		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
D. Find and describe geometric figures in real life.	<ul style="list-style-type: none"> Find and describe geometric figures in real life. (R) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
E. Identify and draw lines of symmetry in geometric figures.	<ul style="list-style-type: none"> Identify and draw all lines of symmetry in two-dimensional geometric figures. (M) 		
F. Identify symmetry in nature.	<ul style="list-style-type: none"> Identify symmetry in Nature and in two-dimensional figures 		
G. Fold paper to demonstrate the reflections about a line.	<ul style="list-style-type: none"> Fold paper to demonstrate the reflections about a line. (M) 		
H. Show relationships between and among figures using reflections.	<ul style="list-style-type: none"> Show relationships between and among figures using reflections (e.g., tessellations). (M) 		

Strand 2.9 Geometry	Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment
I. Predict how shapes can be changed by combining or dividing them.	<ul style="list-style-type: none"> • Predict how shapes can be changed by combining or dividing them. (M) • Recognize slides, flips and turns of a simple two-dimensional figure. (M) (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3

Strand 2.10 Trigonometry		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Identify right angles in the environment.	<ul style="list-style-type: none"> Identify right angles in the environment. (R) (PSSA) Determine whether an angle is $<$, $>$, or $=$ to a right angle. (M) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Model right angles and right triangles using concrete objects.	<ul style="list-style-type: none"> The student will model right angles and right triangles using concrete objects. (PSSA) 		

Strand 2.11 Concepts of Calculus		Subject Area: Math	Grade: 3
PA Academic Standards	Performance Indicators	Assessment	
A. Identify whole number quantities and measurements from least to most and greatest value.	<ul style="list-style-type: none"> Identify whole number quantities and measurements from least to most and greatest value from 1 to 10,000. (M) (PSSA) 	Teacher made tests and quizzes Chapter tests and quizzes Curriculum-based assessments Standardized tests Demonstrations Performance assessments Portfolios Research papers Essays Oral presentations Multi-medial presentations Experiments Pennsylvania System of School Assessment (PSSA) – Grade 3	
B. Identify least and greatest values represented in bar graphs and pictographs.	<ul style="list-style-type: none"> Identify least and greatest values in pictographs with variables. (M) 		
C. Categorize rates of change as faster and slower.	<ul style="list-style-type: none"> Categorize rates of change as faster and slower. (M) 		
D. Continue a pattern of numbers or objects that could be extended infinitely.	<ul style="list-style-type: none"> Continue a pattern of numbers or objects that could be extended infinitely. (R) 		

Adaptations/Modifications for Students with I.E.P.s

Adaptations or modifications to this planned course will allow exceptional students to earn credits toward graduation or develop skills necessary to make a transition from the school environment to community life and employment. The I.E.P. team has determined that modifications to this planned course will meet the student's I.E.P. needs.

Adaptations/Modifications may include but are not limited to:

INSTRUCTION CONTENT

- Modification of instructional content and/or instructional approaches
- Modification or deletion of some of the essential elements

SETTING

- Preferential seating

METHODS

- Additional clarification of content
- Occasional need for one to one instruction
- Minor adjustments or pacing according to the student's rate of mastery
- Written work is difficult, use verbal/oral approaches
- Modifications of assignments/testing
- Reasonable extensions of time for task/project completion
- Assignment sheet/notebook
- Modified/adjusted mastery rates
- Modified/adjusted grading criteria
- Retesting opportunities

MATERIALS

- Supplemental texts and materials
- Large print materials for visually impaired students
- Outlines and/or study sheets
- Carbonless notebook paper
- Manipulative learning materials
- Alternatives to writing (tape recorder/calculator)