

Wallenpaupack Area School District

COURSE: Mathematics

GRADE LEVEL: Second Grade

LENGTH OF COURSE: 180 Days/60 Minutes Per Day

TEXT: Everyday Mathematics

PUBLISHER: Everyday Learning Corporation
The University of Chicago School Mathematics Project

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COURSE DESCRIPTION:

The second grade mathematics program emphasizes a hands on approach to learning basic arithmetic and critical thinking skills. Basic skills are repeatedly practiced in a variety of engaging ways. The curriculum design allows concepts and skills to be revisited. Content is presented in such a way that mathematics is connected to everyday life.

AREAS OF STUDY:

Numeration
Operations and Computation
Patterns, Functions and Algebra
Geometry
Measurement
Reference Frames
Data and Chance

CURRICULUM WRITING TEAM:

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DATE OF REVISION:

2002

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standards: 2.1.3.A

2.1.3.B

Topics:	Skills:
Numbers	Skip counting Rote counting Identify negative numbers on a number line, thermometer Identify odd and even numbers
Activities:	Performance Assessments
Classroom coded number line Oral skip counting games Rote counting Practice skip counting using concrete objects, e.g., dimes, eyes, feet Use calculator to skip count, e.g., 2+, 2+2 Tally count Number grid chart Class number scroll Number grid puzzles Arrow path puzzles Number grid hunt Count a collection of coins Complete written number sequences 5, 10, 15, 20, 25, 25	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.1.3.C
2.1.3.D
2.1.3.E

Topics:	Skills:
Numbers Equivalent forms	Identify fractions Compare fractions
Activities:	Performance Assessments:
Fraction bingo Draw sets of objects, color fractional parts and label with fractional notation Fold paper in halves, fourths, eighths, etc. and label with fractional notation Make fraction books that illustrate different fractional parts Use fraction circles and fraction bars to compare fractions Divide objects into fractional parts Explore Cuisenaire Rods Cut food to show fractional parts Form fractions on a geoboard Slate drills Fraction flash cards Memory-match fractional notation to picture Use graph paper to show fractional parts Compare equivalent fractions using manipulative Computer games Fraction Top It Equivalent fraction game Fraction Museum Pattern blocks as fraction Fraction in action Fraction number stories Name collection box Balance scale Base ten blocks Broken calculator game Number balance problems	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.1.3.F
2.1.3.G
2.1.3.H
2.1.3.I

Topics:	Skills:
<p>Money</p>	<p>Identify, sort and group coins and bills Use >, <, + symbols to compare amounts of money Read number to four digits Use bills to count by 1's, 10's, 100's</p>
Activities:	Performance Assessments:
<p>Money grab bag. Select x number of coins from bag. Student determines the value of coins selected Money riddles (e.g., I have three coins that are equal to 25 cents. What are my coins?) Have children show different ways of making values with different coin combinations. Write proper decimal notation using \$ and ¢ Card game (like War). Use money picture cards. Each player displays a card, the higher value wins Classroom store (using calculators) Menus (calculators) Coupon math Addition and subtraction of money with and without regrouping Pick a coin game Money exchange game Dollar rummy Slate activities – record given amounts of money Computer games Shopping game Use good buys poster and art supply poster to total purchases and make change word values Making change game Spinning for money Digit game Place value tool Base ten blocks, structures Dictation of numbers</p>	<p>Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists</p>

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Activities: (continued)	
Tallies Base ten blocks Counters or other manipulatives 100 th day projects Money exchange game	

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Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.1.3.J

Topics:	Skills:
Estimation	Estimate answers
Activities:	Performance Assessments:
Ballpark estimates Number stories – estimate answers Jar estimates – collections of objects Estimating costs – using good buys poster and art supply poster	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.1.3.K
2.1.3.L
2.1.3.M

Topics:	Skills:
Number relationships	Addition Subtraction
Activities:	Performance Assessments:
Add/subtraction fact triangles Fact families Turn around facts – addition and multiplication Word problems Drill and practice Speed drills Around the World Addition top It Subtraction top It Addition and subtraction Bingo Beat the calculator Name that number Array Bingo Multiplication draw game Eggs and nests Multiplication/Division fact triangle Demonstrate multiplication as repeated addition Addition/Subtraction fact table Multiplication/Division fact table Computer games Array number stories	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.2.3.A
2.2.3.B

Topics:	Skills:
Computation	Write and solve story problems - +, -, ÷, x
Activities:	Performance Assessments:
Use money manipulatives – coins, bills to solve story problems Solve multiplication problems by using multiplication diagrams and array models Solve equal sharing and equal grouping story problems Solve division problems using division diagram and number model Solve addition and subtraction number stories using quantity-quantity difference, total-part-part-and start change diagrams	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.2.3.C

Topics:	Skills:
Computation	
Activities:	Performance Assessments:
Use base ten models and place value work mats to model problems with and without regrouping Computer games Introduce partial-sums algorithms Trade first subtraction Addition spin Basketball addition Hit the target Discuss and model other addition/subtraction strategies (e.g., traditional method) Slate drills Three addend game	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standards: 2.2.3.D
2.2.3.E

Topics:	Skills:
Computation	
Activities:	Performance Assessments:
Array number stories Array Bingo Calculator counts by 2's, 5's, 10's Eggs in nests activity Make rectangular arrays and record on grid paper Oral skip counting 2's, 5's, 10's, etc. Multiplication story problems Pictorial representations Flannel board presentations Divide collection of objects Model equal sharing and equal grouping situations with manipulatives Story problems/equal sharing	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.2.3.F

Topics:	Skills:
Estimation	Estimate various items, lengths, widths
Activities:	Performance Assessments:
Use ballpark estimates to check answers Estimation of collected items i.e., jellybeans, marbles Estimate length and weight of various objects Estimate cost – art supply poster and good buys poster	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.2.3.G

Topics:	Skills:
Computation	Regrouping
Activities:	Performance Assessments:
Teacher demonstration of various regrouping strategies (e.g., partial sums, trade first subtraction, traditional method) Base ten model activities Hit the target Basketball addition Slate drills	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.3.3.A
2.3.3.B
2.3.3.E

Topics:	Skills:
Measurement	Compare weights, lengths, perimeters, temperatures Measure using standard and nonstandard units
Activities:	Performance Assessments:
<p>Use pan balance to compare weights of different objects</p> <p>Compare the length of different object (e.g., student desk, teacher desk)</p> <p>Compare the perimeter of different objects (e.g., sheet of paper to desk top)</p> <p>Compare the temperature of different seasons, times of day, etc.</p> <p>Measure various classroom objects using metric and customary ruler, tape measure, metric stick, yard stick, etc.</p> <p>Measure objects using non-standard units (e.g., feet, hands, paper clips)</p> <p>Measure lengths and distances to the nearest inch and centimeter</p> <p>Measure line segments</p> <p>Class discussion</p> <p>Construct a classroom measurement table</p> <p>Students choose appropriate unit to measure given objects</p>	<p>Teacher observations</p> <p>Oral questions</p> <p>Written tests</p> <p>Open-ended questions</p> <p>Individual/class projects</p> <p>Teacher constructed quizzes and tests</p> <p>Textbook reviews and tests</p> <p>Math journals</p> <p>Homework assignments</p> <p>Performance tasks</p> <p>Problems designed by students</p> <p>Classroom participation</p> <p>Anecdotal records</p> <p>Checklists</p>

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.3.3.C

Topics:	Skills:
Calendar	Identify days of the week Identify months of the year
Activities:	Performance Assessments:
Calendar routine Construct a monthly calendar Calendar problem (e.g., What will be the date of the third Sunday of the month? What will be the date one week from today?)	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.3.3.D

Topics:	Skills:
Time	Tell and show time to the nearest five minutes Make clock face booklets
Activities:	Performance Assessments:
Review functions of the clock hands Estimate time: using hour hand only clock and hour and minute hand Write time in digital notation Slate drills Make student clocks Clock concentration Elapsed time problems Practice counting by 5's Time Bingo	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.3.3.F

Topics:	Skills:
Measurement	Define and compare area and perimeter
Activities:	Performance Assessments:
Find area using graph paper Measure perimeter in paces Measure perimeter of polygons using cm cubes Draw shapes on graph paper and measure area and perimeter Measure area using existing floor tiles Use geoboards to measure area and perimeter Find area and perimeter of given objects	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.3.3.G

Topics:	Skills:
Measurement and estimation	
Activities:	Performance Assessments:
Estimate length, time, weight, temperature, capacity, area and perimeter before measuring with appropriate tool Teacher demonstration	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.4.3.A

Topics:	Skills:
Comparison	Compare numbers using $<$, $>$, $=$ Create pattern designs to cover polygons
Activities:	Performance Assessments:
Explore pattern block designs to find different ways to cover polygons Find classroom objects and compare to two and three dimensional shapes Predict and verify two shapes using common object (e.g., centimeter cubes)	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.4.3.B

Topics:	Skills:
Activities:	Performance Assessments:
Measure classroom objects to nearest appropriate unit (e.g., inch, foot, year)	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.5.3.A
2.5.3.B
2.5.3.C

Topics:	Skills:
Problem solving	Solve addition and subtraction word problems Construct graphs to represent information and compare data Use tallies to solve work problems
Activities:	Performance Assessments:
Act out equal sharing situations Use part-total, quantity difference, and start change to organize diagram information Make up and solve number stories Use ballpark estimates to solve problems Use diagrams to organize problem information (e.g., parts-parts-total) Draw pictures, tallies to solve word problems) Introduce multiplication and division story problems	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.6.3.A
2.6.3.B

Topics:	Skills:
Data analysis	Collect data and record on graph Analyze data table
Activities:	Performance Assessments:
Collect data: number of pockets on clothes Record "pocket" data: tally chart Display "pocket" data: bar graph Dates on pennies project Use tallies and graphs to compare data Collect and organize data: make data table – tally of favorite class foods according to food group Analyze "favorite foods" data table Display "favorite foods" data: make bar graph Standing long jump data and bar graph Order "pocket" data to find middle value (median) Find median, mode, range, using data from a map Arm span data – median Long jump data – median	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.6.3.C
2.6.3.D
2.6.3.E

Topics:	Skills:
Data analysis	Construct a graph Answer questions using data from graph
Activities	Performance Assessments:
Compare height at beginning and end of year Compare weather, temperature graph September – June Formulate and answer questions about graphs constructed Dice roll tally game Predict graphing outcomes "Pocket data" predictions	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.7.3.A
 2.7.3.B
 2.7.3.C
 2.7.3.D
 2.7.3.E

Topics:	Skills:
Probability	Make predictions
Activities:	Performance Assessments:
Dice roll tally game Coin toss – heads and tails Odd and even dice throw Lincoln Penny Toss Spinning for Gold-St. Patrick’s Day Probability Students create spinners – present and discuss fairness and why Play commercial games which use a spinner – discuss design of spinner and fairness Popcorn predictions – pop different brands of popcorn and compare number of unpopped kernels “Plant project” – plant seeds, graph heights of plants Use various graphs constructed by students to identify largest, smallest, most often, least often and middle results Use fair and unfair spinner to determine likelihood of results Dice roll – predict and compare the frequency of sums Spinning for Gold – St. Patrick’s Day probability	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.A

Topics:	Skills:
Algebra	Describe and extend number patterns Make pattern block design
Activities:	Performance Assessments:
Number grid Patterns and puzzles Attribute train game Attribute rule game Frames and arrows Doubling and halving patterns – “Wubbles” What’s my rule? Calculator counts Patterns on fact table	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.B

Topics:	Skills:
Algebra	Create number sentences
Activities:	Performance Assessments:
Use manipulatives to model number sentences Act out number sentences Solve word problems	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.C
2.8.3.D

Topics:	Skills:
Algebra	Identify missing addend
Activities:	Performance Assessments:
Use manipulatives to solve missing addend number sentences Counting up strategy Domino dot problems Penny Cup Two-fisted penny addition What's my rule? Frames and arrows Function machines	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.E

Topics:	Skills:
Algebra	
Activities:	Performance:
Write addition and subtraction number stories and solve using number models Write and solve temperature and money problems Use pictures to create number stories	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.F

Topics:	Skills:
Activities:	Performance Assessment:
Number balances Use manipulatives to model story problems Use balance scale to compare quantities (e.g., 6 blocks and 3 blocks)	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.G

Topics:	Skills:
Activities: Write number model sentences Solve word problems Compare quantities using $<$, $>$, $=$	Performance Assessments: Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.H
2.8.3.I
2.8.3.J

Topics:	Skills:
Activities:	Performance Assessments:
Construct classroom graphs about various topics (e.g., favorite color, food, pockets, weather) Compare and interpret graph data Collect data and construct tables and charts (e.g., favorite dinosaurs, pets, foods) Formulate questions to compare data collected	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.K

Topics:	Skills:
Activities: Use manipulative to solve what's my rule? Problems and frames and arrow problems	Performance Assessments: Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.8.3.L

Topics:	Skills:
Activities:	Performance Assessments:
Grid and graph it activities	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.A
2.9.3.B
2.9.3.C
2.9.3.L

Topics:	Skills:
<p>Geometry</p>	<p>Identify shapes Construct polygons using a variety of shapes – rectangles and triangles Construct three-dimensional geometric shapes using straws and ties Construct paper three-dimensional objects Identify parallel lines in real life setting Identify and discuss square corners</p>
Activities:	Performance Assessments:
<p>Shapes Museum Identify shapes on pattern block templates Polygon collage Make and color designs with pattern block template Make, describe and compare shapes on a geoboard Sort shapes Form quadrilaterals using geoboards Draw quadrilaterals using templates Compare quadrilaterals according to sides and angles Create and draw a variety of polygons using pattern blocks</p>	<p>Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists</p>

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.D
2.9.3.E

Topics:	Skills:
Geometry	Identify polygons Construct two and three-dimensional shapes
Activities:	Performance Assessments:
<ul style="list-style-type: none"> Construct geoboard polygons Use templates to draw two-dimensional shapes Construct polygons using rectangles and triangles Use graph paper to draw two-dimensional shapes Use straws to construct two and three-dimensional shapes Shapes museum Geometric collage Identify three-dimensional classroom objects Shapes grab bag Shape hunts 	<ul style="list-style-type: none"> Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.F
2.9.3.G
2.9.3.I
2.9.3.J

Topics:	Skills:
Geometry	Identify symmetrical figures in the classroom Identify positive and negative images
Activities:	Performance Assessments:
<ul style="list-style-type: none"> Fold and cut symmetrical figures Ink blot shapes Identify letters of the alphabet that are symmetrical Make geoboard shapes and form line of symmetry Use pattern blocks and templates to draw mirror images Name symmetrical objects found in nature Draw line of symmetry for given pictures Fold pictures to show line of symmetry Symmetry hunt Snowflake project Use templates and pattern blocks to create and draw mirror images Create mirror images using geoboards Fold graph paper in half, student draws design on one half and partner completes reflective half Create a positive and negative image using pattern halves and construction paper 	<ul style="list-style-type: none"> Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.H

Topics:	Skills:
Geometry	Identify three-dimensional objects
Activities:	Performance Assessments:
Compare three-dimensional to objects found in the environment (sphere-ball, cone-party hat) Shapes Museum	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.K

Topics:	Skills:
Geometry	
Activities:	Performance Assessments:
Find the area of a shaded figure Measure classroom perimeter in paces Measure area of grid paper drawings Measure area of hands and feet Measure area and perimeter of block letter Measure perimeter of various shapes drawn on graph paper	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.M

Topics:	Skills:
Geometry	Identify points and line segments
Activities:	Performance Assessments:
Explore points and line segments by drawing and labeling	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.9.3.N

Topics:	Skills:
Geometry	Identify characteristics of two and three-dimensional shapes Draw polygons Construct charts to compare and contrast different characteristics of two and three-dimensional shapes
Activities:	Performance Assessments:
Use solid figures to explore characteristics of two and three-dimensional shapes (e.g., faces, base, vertices) Construct three-dimensional shapes from twist ties and straws and/or paper models Shapes Museum Identify shapes in environment Shapes collage 3-D shape hunt Use pattern block templates to draw polygons	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.10.3.A
2.10.3.B

Topics: Trigonometry	Skills: Identify right angles (square corners) using and index card Create designs using right triangle patterns
Activities: Discuss symbol for right angle Right angle hunt in classroom and at home Cut a rectangle or square to create two right triangles Use geoboards to construct right triangles and figures containing right angles	Performance Assessments: Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.11.3.A
2.11.3.B

<p>Topics:</p> <p>Calculus</p>	<p>Skills:</p> <p>Order a given set of numbers from least to greatest Use given digits to create the biggest and smallest number Read and write four digit numbers Compare numbers and money amounts using $<$, $>$, and $=$ Compare data on a bar graph Create place value booklet Construct various bar and pictographs (colors, weather, favorite food, height, pockets, etc.) and compare data</p>
<p>Activities:</p> <p>Slate drills Digit game Number grid puzzles Digit discovery game Base ten structure calculations Students create questions about information represented in graph and answer</p>	<p>Performance Assessments:</p> <p>Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists</p>

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.11.3.C

Topics:	Skills:
Calculus	Compare distances using a graph
Activities:	Performance Assessments:
Read <u>Tortoise and Hare</u> and discuss Compare distances an adult can cover by various modes of travel using a graph Relay races	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 2

PA Standard: 2.11.3.D

Topics:	Skills:
Calculus	Rote skip count Identify patterns Continue a pattern Continue a number pattern
Activities:	Performance Assessments:
Calculator counts and identify patterns Mark a number grid with counts by n Rote skip counting Use pattern blocks to create and continue a pattern Frames and arrows Function machine	Teacher observations Oral questions Written tests Open-ended questions Individual/class projects Teacher constructed quizzes and tests Textbook reviews and tests Math journals Homework assignments Performance tasks Problems designed by students Classroom participation Anecdotal records Checklists