

Wallenpaupack Area School District

COURSE: Mathematics

GRADE LEVEL: Fourth Grade

LENGTH OF COURSE: 180 Days/60 Minutes Per Day

TEXT: Everyday Mathematics and/or Mathematics Plus

PUBLISHER: Everyday Learning Corporation and/or Harcourt Brace & Co.

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COURSE DESCRIPTION:

The fourth grade math program is designed to allow students the opportunity to apply mathematical understanding of concept to real world situations. Students actively participate in the calculation, demonstration and application of concepts which include problem solving, computation, measurement, use of number systems, geometry, organizing and interpreting data, fractions, decimals, probability and statistics, algebra, estimation and reasoning.

AREAS OF STUDY:

PA Standards
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
Concepts of Calculus

CURRICULUM WRITING TEAM:

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DATE OF REVISION:

2002

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.1.4.A
2.1.4.B
2.1.4.C
2.1.4.D
2.1.4.E
2.1.4.F
2.1.4.G

Topics:	Skills:
Numbers, nuber systems	Read and write numbers to one million using whole numbers Interpret place value to one million Calculate change up to \$99.99 Make change up to \$9.99 using the smallest number of coins and bills
Activities:	Performance Assessments:
Written practice Problem solving Place value mats/charts Base ten blocks Counters Number lines Money manipulatives Fraction patterns blocks Geoboards Other manipulatives related to specific skills	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.2.4.A
2.2.4.B
2.2.4.C
2.2.4.D
2.2.4.E
2.2.4.F
2.2.4.G
2.2.4.H
2.2.4.I

Topics:	Skills:
Computation and estimation	
Activities:	Performance Assessments:
Written practice Problem solving Calculators Clocks Number lines Money manipulatives Other manipulatives related to specific skills Variety of game activities	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.3.4.A
2.3.4.B
2.3.4.C
2.3.4.D
2.3.4.E

Topics:	Skills:
Measurement	Describe the attributes of temperature using Fahrenheit and Celsius Calculate the perimeter and area of figures Introduce formulas for determining measurements (e.g., area, volume, distance) Tell time to the minute, and determine and compare elapsed times Use scale measurements to interpret maps or drawings
Activities:	Performance Assessments:
Written practice Problem solving Appropriate measurement instruments (e.g., in./cm. rulers, tape measures) Graph paper Other manipulatives related to specific skills Social studies activities	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.4.4.A
2.4.4.B
2.4.4.C
2.4.4.D
2.4.4.E
2.4.4.F

Topics:	Skills:
Mathematical reasoning	
Activities:	Performance Assessments:
Written practice (include logic problems) Problem solving Use date interpretation Other manipulatives	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.5.4.A
2.5.4.B
2.5.4.C
2.5.4.D
2.5.4.E

Topics:	Skills:
Mathematical problem solving	Explain the method and reasoning behind the problem's solution to determine reasonableness of and to verify results with respect to the original problem
Activities:	Performance Assessments:
Written practice Problem solving process Identification of various strategies, select appropriate strategy to solve problem Dictionaries	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.6.4.A
2.6.4.B
2.6.4.C
2.6.4.D
2.6.4.E

Topics:	Skills:
Data analysis	
Activities:	Performance Assessments:
Written practice Problem solving Use of graphing materials	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.7.4.A
2.7.4.B
2.7.4.C
2.7.4.D
2.7.4.E
2.7.4.F
2.7.4.G
2.7.4.H
2.7.4.I
2.7.4.J

Topics:	Skills:
Probability and predictions	Generate a list of all possible outcomes of given events by constructing a table or developing an organized list Present results of an experiment using visual representations (e.g., tables, charts, graphs)
Activities:	Performance Assessments:
Written practice Problem solving Spinners Calculators	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.8.4.A
2.8.4.B
2.8.4.C
2.8.4.D
2.8.4.E
2.8.4.F
2.8.4.G
2.8.4.H
2.8.4.I

Topics:	Skills:
Algebra	Gather information, analyze the collected data, and display it (e.g., missing addends, continue the pattern)
Activities:	Performance Assessments:
Written practice Problem solving Graphing materials	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.9.4.A
2.9.4.B
2.9.4.C
2.9.4.D
2.9.4.E
2.9.4.F
2.9.4.G
2.9.4.H
2.9.4.I
2.9.4.J
2.9.4.K
2.9.4.L

Topics:	Skills:
Geometry	Draw congruent polygons and identify lines of symmetry Define parallel and perpendicular lines
Activities:	Performance Assessments:
Written practice Problem solving Geometry templates Geometry manipulatives Geoboards Other manipulatives Computer software for tessellation activities	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.10.A
2.10.B

Topics:	Skills:
Trigonometry	Compare right angles with acute and obtuse angles
Activities:	Performance Assessments:
Written practice Problem solving Geoboards Protractors Other manipulatives Visual aids	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment

Wallenpaupack Area School District

Course: Mathematics

Grade Level: Grade 4

PA Standard: 2.11.4.A
2.11.4.B
2.11.4.C
2.11.4.D
2.11.4.E
2.11.4.F

Topics:	Skills:
Calculus	Observe patterns of numbers and make predictions to determine and continue the sequence Calculate area of rectangles and squares
Activities:	Performance Assessments:
Written practice Problem solving Base ten blocks Graphing materials Geometry template Other appropriate manipulatives	Teacher observation Oral questions Class projects Homework assignments Teacher made assessment Problem solving rubric Classroom participation Critical thinking (problem of the day)/mental math/math message Program assessment District End of the Year Assessment