

Wallenpaupack Area School District Planned Course Curriculum Guide

**Department
Math**

**Name of Course
Math 7**

Course Description:

7th Grade Math 7 includes the study and application of the following topics:

- Explore algebraic expressions and integers
- Simplify and evaluate variable expressions using the property of numbers
- Understand factors, fractions, exponents
- Apply operations with percents, fractions and decimals
- Use data analysis and probability
- Solve one-step and two-step equations and inequalities
- Explore proportional relationships and ratios
- Utilize area, surface area, and volume of two and three dimensional shapes
- Identify points, lines, and angles and angle relationships
- Introduce relations, linear functions and their graphs
- Convert between customary and metric units of measure
- Understand properties of right triangles (time permitting)

Revision Date:

September 2015

This PCCG is designed as an ACTIVE document capable of technological modification as required.

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 1: Algebraic Expressions and Integers	TIMEFRAME: 3-5 weeks

PA COMMON CORE/NATIONAL STANDARDS:

- **CC.2.1.7.E.1** Apply and extend previous understandings of operations with fractions to operations with rational numbers.
- **CC.2.2.7.B.1** Apply properties of operations to generate equivalent expressions.
- **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.

UNIT OBJECTIVES (SWBATS):

- **Compare integers and find absolute value**
- **Use the order of order of operations to evaluate expressions**
- **Perform operations with integers**
- **Identify, write, and solve numerical and variable expressions**
- **Graph points on the coordinate plane and identify quadrants**

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Note taking
- Homework and practice
- Cooperative learning
- Peer interaction
- Modeling
- Active participation

ANCHOR VOCABULARY:

Chapter 1

- Absolute value
- Additive Inverse (Opposites)
- Integers
- Simplify
- Evaluate
- Exponent
- Quantity
- Order of operations
- Variable
- Numerical expression
- Variable expression
- Substitution
- Coordinate plane
- Ordered pair
- Origin
- Quadrants
- X-axis
- X-coordinate
- Y-axis
- Y-coordinate

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Diagnostic

- Unit 1 Pre-Test
- CDTs

Formative

- Teacher observation
- Unit quizzes
- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

Graph paper

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 2: Simplifying Variable Expressions using the Properties of Numbers	TIMEFRAME: 2-3 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • Use the distributive property to create equivalent expressions • Identify the property of numbers • Combine like terms
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Identity Properties of Addition and Multiplication • Associative Properties of Addition and Multiplication • Commutative Properties of Addition and Multiplication • Distributive Property • Coefficient • Constant • Term • Like terms
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 2 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island <p>Summative</p> <ul style="list-style-type: none"> • Final Exam • PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 3: Rational Number Sense	TIMEFRAME: 3-5 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • Identify the divisibility of numbers using algorithms • Find prime factorization, greatest common factor, and least common multiple using algorithms • Simplify fractions with and without variables • Convert between fractions, and decimals • Compare and order rational numbers
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Divisible • Prime • Composite • Factor • Simplest Form • Prime Factorization • Greatest Common Factor (GCF) • Least Common Multiple (LCM) • Rational Number
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 3 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island <p>Summative</p> <ul style="list-style-type: none"> • Final Exam • PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 4: Operations with Fractions and Decimals	TIMEFRAME: 2-4 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • Learn how to find a common denominator • Learn how to add, subtract, multiply and divide fractions with and without variables • Learn how to add, subtract, multiply and divide decimals
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Multiple • Least common denominator (LCD) • Reciprocal • Inverse • Repeating decimal • Terminating decimal
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 4 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island <p>Summative</p> <ul style="list-style-type: none"> • Final Exam • PSSAs
<p>EVIDENCE OF MASTERY/Cut Score (PSSA):</p> <ul style="list-style-type: none"> • PSSA Proficient (1000-1107) Advanced (1108 and up) • Objective Assessment Score of 70%
<p>DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)</p> <ul style="list-style-type: none"> • Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 5: Percents, Data Analysis and Probability	TIMEFRAME: 3-5 weeks

PA COMMON CORE/NATIONAL STANDARDS:

- **CC.2.1.7.E.1** Apply and extend previous understandings of operations with fractions to operations with rational numbers.
- **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
- **CC.2.4.7.B.3** Investigate chance processes and develop, use, and evaluate probability models.

UNIT OBJECTIVES (SWBATS):

- How to use graphs to represent data
- How to find theoretical probability and experimental probability
- How to find independent and dependent events
- How to find simple and compound probability

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Note taking
- Homework and practice
- Cooperative learning
- Peer interaction
- Modeling
- Active participation

ANCHOR VOCABULARY:

- Measure of Central Tendency
- Mean
- Median
- Mode
- Range
- Box-and-whisker plot (five number summary)
- Quartile
- Interquartile Range
- Lower and Upper Extremes
- Frequency table
- Line plot
- Histogram
- Probability
- Counting principal
- Simple probability
- Compound probability
- Dependent event
- Independent event
- Experimental probability
- Theoretical probability

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Diagnostic

- Unit 5 Pre-Test
- CDTs

Formative

- Teacher observation
- Unit quizzes
- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 6: Equations	TIMEFRAME: 3-5 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.

<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • Identify whether an equation is true, false, or open • Write and solve one-step, two-step, and multi-step equations using all forms of rational numbers • Apply the simple interest formula

<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation

<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Open Sentence • Equation (Number Sentence) • Balance • Inverse Operation • Solution • Isolation

<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 6 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island <p>Summative</p> <ul style="list-style-type: none"> • Final Exam • PSSAs
--

<p>EVIDENCE OF MASTERY/Cut Score (PSSA):</p> <ul style="list-style-type: none"> • PSSA Proficient (1000-1107) Advanced (1108 and up) • Objective Assessment Score of 70%

<p>DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)</p> <ul style="list-style-type: none"> • Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 7: Inequalities	TIMEFRAME: 2-3 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • Write and solve one-step, two-step, and multi-step inequalities using all forms of rational numbers
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Inequality • At least • At most
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 7 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island <p>Summative</p> <ul style="list-style-type: none"> • Final Exam • PSSAs
<p>EVIDENCE OF MASTERY/Cut Score (PSSA):</p> <ul style="list-style-type: none"> • PSSA Proficient (1000-1107) Advanced (1108 and up) • Objective Assessment Score of 70%
<p>DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)</p> <ul style="list-style-type: none"> • Appropriate accommodations based on the student's IEP/504 Plan
<p>RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):</p> <p>Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)</p> <p>www.phschool.com</p> <p>www.studyisland.com</p> <p>Scientific calculators</p>

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 8: Ratios and Proportional Relationships	TIMEFRAME: 3-5 weeks

PA COMMON CORE/NATIONAL STANDARDS:

- **CC.2.1.7.D.1** Analyze proportional relationships and use them to model and solve real-world and mathematical problems.
- **CC.2.1.7.E.1** Apply and extend previous understandings of operations with fractions to operations with rational numbers.
- **CC.2.2.7.B.1** Apply properties of operations to generate equivalent expressions.
- **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
- **CC.2.4.7.B.1** Draw inferences about populations based on random sampling concepts.
- **CC.2.4.7.B.2** Draw informal comparative inferences about two populations.
- **CC.2.4.7.B.3** Investigate chance processes and develop, use, and evaluate probability models.

UNIT OBJECTIVES (SWBATS):

- Identify the difference between rates and ratios
- Find the constant of proportionality with and without graph
- Identify, write and solve proportions
- Tell whether figures are proportional using similarity and scale
- Find the percent of change
- Learn how to find markup, discount and selling price
- Learn how to use random sampling to draw inferences

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Note taking
- Homework and practice
- Cooperative learning
- Peer interaction
- Modeling
- Active participation

ANCHOR VOCABULARY:

- Cross products
- Markup
- Discount
- Percent
- Percent of change
- Proportion
- Constant of proportionality
- Rate
- Ratio
- Unit rate
- Scale drawing
- Similar figures
- Congruent figures
- Random Sample
- Population

- Inference

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Diagnostic

- Unit 8 Pre-Test
- CDTs

Formative

- Teacher observation
- Unit quizzes
- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

Graph paper

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 9: Area, Surface Area, and Volume of Polygons	TIMEFRAME: 3-5 weeks

PA COMMON CORE/NATIONAL STANDARDS:

- **CC.2.1.7.E.1** Apply and extend previous understandings of operations with fractions to operations with rational numbers.
- **CC.2.2.7.B.1** Apply properties of operations to generate equivalent expressions.
- **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
- **CC.2.3.7.A.1** Solve real-world and mathematical problems involving angle measure, area, surface area, circumference, and volume.
- **CC.2.3.7.A.2** Visualize and represent geometric figures and describe the relationships between them.

UNIT OBJECTIVES (SWBATS):

- Learn how to classify geometric figures
- Identify parts of a circle
- Find perimeter, area, surface area, and volume of various figures

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Note taking
- Homework and practice
- Cooperative learning
- Peer interaction
- Modeling
- Active participation

ANCHOR VOCABULARY:

- Altitude
- Circumference
- Radius
- Diameter
- Chord
- Area
- Lateral Area
- Cone
- Square unit
- Cubic unit
- Polygon
- Regular Polygon
- Cylinder
- Net
- Prism
- Pyramid
- Slant height
- Space figure
- Surface area

- Volume

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Diagnostic

- Unit 9 Pre-Test
- CDTs

Formative

- Teacher observation
- Unit quizzes
- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

Graph paper

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum

COURSE: Math 7

GRADE/S: 7

UNIT 10: Points, Lines and Angles

TIMEFRAME: 2-3 weeks

PA COMMON CORE/NATIONAL STANDARDS:

- **CC.2.2.7.B.1** Apply properties of operations to generate equivalent expressions.
- **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
- **CC.2.3.7.A.1** Solve real-world and mathematical problems involving angle measure, area, surface area, circumference, and volume.
- **CC.2.3.7.A.2** Visualize and represent geometric figures and describe the relationships between them.

UNIT OBJECTIVES (SWBATS):

- Learn how to use properties of figures to solve problems
- Learn the names and relationship between angles formed when parallel lines are cut by a transversal
- Learn to identify parallel, perpendicular and skew line segments in three dimensional figures

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Note taking
- Homework and practice
- Cooperative learning
- Peer interaction
- Modeling
- Active participation

ANCHOR VOCABULARY:

- Adjacent angles
- Alternate interior angles
- Alternate exterior angles
- Corresponding angles
- Complementary angles
- Supplementary angles
- Vertical angles
- Congruent angles
- Point
- Line
- Line Segment
- Ray
- Plane
- Parallel
- Perpendicular
- Skew
- Transversal

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Diagnostic

- Unit 10 Pre-Test
- CDTs

Formative

- Teacher observation
- Unit quizzes
- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 11: Linear Functions and Graphing	TIMEFRAME: 3-5 weeks

PA COMMON CORE/NATIONAL STANDARDS:

- **CC.2.1.7.D.1** Analyze proportional relationships and use them to model and solve real-world and mathematical problems.
- **CC.2.2.7.B.1** Apply properties of operations to generate equivalent expressions.
- **CC.2.2.7.B.3** Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.

UNIT OBJECTIVES (SWBATS):

- Learn how to determine whether a relation is a function
- Learn how to recognize positive and negative slope and interpret its meaning
- Learn how to solve linear equations
- Learn how to solve systems of linear equations and inequalities
- Learn how to solve a problem by graphing

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

- Note taking
- Homework and practice
- Cooperative learning
- Peer interaction
- Modeling
- Active participation

ANCHOR VOCABULARY:

- Domain
- Range
- Relation
- Function
- Vertical-line test
- Function rule
- Linear equation
- Linear inequality
- Positive correlation
- Negative correlation
- No correlation
- Scatter plot
- Slope
- Slope-intercept form
- System of linear equations
- System of linear inequalities
- Trend line
- Y-intercept

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Diagnostic

- Unit 11 Pre-Test
- CDTs

Formative

- Teacher observation
- Unit quizzes
- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

Graph paper

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 12: Multiplying and Dividing Expressions with Exponents	TIMEFRAME: 1-2 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • Learn to simplify fractions using variables with exponents with and without a fraction bar • Learn to multiply variables with exponents • Write numbers using scientific notation
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Power • Base • Scientific Notation
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 12 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island <p>Summative</p> <ul style="list-style-type: none"> • Final Exam • PSSAs
<p>EVIDENCE OF MASTERY/Cut Score (PSSA):</p> <ul style="list-style-type: none"> • PSSA Proficient (1000-1107) Advanced (1108 and up) • Objective Assessment Score of 70%
<p>DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)</p> <ul style="list-style-type: none"> • Appropriate accommodations based on the student's IEP/504 Plan
<p>RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):</p> <p>Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)</p> <p>www.phschool.com</p> <p>www.studyisland.com</p> <p>Scientific calculators</p>

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

Graph paper

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 13: Measurement	TIMEFRAME: 1-2 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • How to convert between customary units of measure • How to convert between metric units of measure • How to convert rates • Learn the latin metric prefixes and their meanings
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Dimensional analysis • Meter • Liter • Gram • Base Unit • Kilo- • Hecto- • Dekka- • Deci- • Centi- • Milli-
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 13 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes • Unit test • Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org

Wallenpaupack Area School District Curriculum	
COURSE: Math 7	GRADE/S: 7
UNIT 14: Right Angles in Algebra	TIMEFRAME: 2-3 weeks (time permitting)

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <ul style="list-style-type: none"> • CC.2.1.7.E.1 Apply and extend previous understandings of operations with fractions to operations with rational numbers. • CC.2.2.7.B.1 Apply properties of operations to generate equivalent expressions. • CC.2.2.7.B.3 Model and solve real-world and mathematical problems by using and connecting numerical, algebraic, and/or graphical representations.
<p>UNIT OBJECTIVES (SWBATS):</p> <ul style="list-style-type: none"> • How to identify an irrational numbers and estimate square roots to the nearest whole number • How to find the missing measures of right triangle • How to use the Pythagorean Theorem • How to use the distance and midpoint formulas • How to use trigonometric functions
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <ul style="list-style-type: none"> • Note taking • Homework and practice • Cooperative learning • Peer interaction • Modeling • Active participation
<p>ANCHOR VOCABULARY:</p> <ul style="list-style-type: none"> • Angle of elevation • Angle of depression • Irrational number • Square root • Perfect square • Trigonometry • Trigonometric ratio • Sine • Cosine • Distance • Tangent • Hypotenuse • Legs • Midpoint
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Diagnostic</p> <ul style="list-style-type: none"> • Unit 14 Pre-Test • CDTs <p>Formative</p> <ul style="list-style-type: none"> • Teacher observation • Unit quizzes

- Unit test
- Study island

Summative

- Final Exam
- PSSAs

EVIDENCE OF MASTERY/Cut Score (PSSA):

- PSSA Proficient (1000-1107) Advanced (1108 and up)
- Objective Assessment Score of 70%

DIFFERENTIATED INSTRUCTION (Remediation/Extension) (Process, Product or Content)

- Appropriate accommodations based on the student's IEP/504 Plan

RESOURCES (Websites, Blogs, Videos, Whiteboard Resources, etc.):

Textbook: Pre-Algebra "Tools for a Changing World" @ 2001 (Prentice Hall)

www.phschool.com

www.studyisland.com

Scientific calculators

Math manipulative

Notes

Supplemental handouts/worksheets/websites

Coach Workbooks

White boards

Projector/TV

SAS

May vary based on instructor, class, availability, updates

RESOURCE SPECIFIC VOCABULARY:

Math 7 Standards Glossary www.pdesas.org