

Catasauqua Area School District Planned Course of Study

Course Title: Mathematics

Grade Level(s): 7th Grade

Text: Savvas Envision Mathematics

Course Description

The goal of 7th grade math is to develop fluency with rational numbers and proportional relationships and to understand how data and statistics apply to the real world. Students will also expand their mathematical skills by learning algebraic concepts and Geometry. They will be introduced to variables, expressions, order of operations, algebraic properties, and the coordinate plane. Students will then build on this knowledge by learning to solve multi-step equations and inequalities. They will learn the relationships among fractions, decimals, percents, ratios, proportions, and probability. Students will also learn about geometric terms, relationships, area, surface area, and volume. Students will analyze situations verbally, numerically, graphically, and symbolically.

Essential Questions & Competencies

Essential Questions:

- How can the properties of operations be used to solve problems involving integers and rational numbers?
- How can you recognize and represent proportional relationships and use them to solve real-world problems?
- How can percentages show proportional relationships between quantities and be used to solve real-world problems?
- How can properties of operations help to generate equivalent expressions that can be used in solving real-world problems?
- How can you solve real world and mathematical problems with numerical and algebraic equations and inequalities?
- How can sampling be used to draw inferences about one or more populations?
- How can you investigate chance processes and develop, use, and evaluate probability models?
- How can geometry be used to solve real-world problems?

Competencies:

- Compute fluently and solve problems using positive and negative rational numbers (including integers).
- Apply a variety of strategies for proportional reasoning and use them to solve real-world problems, including problems dealing with similarity and rates of change.
- Extend previous understandings of the characteristics of 3D shapes to develop an understanding of and use formulas to determine surface areas and volumes.
- Answer questions regarding a data set using measures of center and spread and interpreting the graphical representation (including box-and-whisker plots) of the data set.
- Determine the sample space for one-stage experiments and determine, when possible, the theoretical probabilities for events defined in the sample space.

Career Awareness, Career Education, & Focus on Employability Skills

Throughout the 7th grade math course, students will develop and build upon problem solving and critical thinking skills through various activities. All topics within the curriculum will implement these skills, along with teacher-created activities and projects. Students will learn to effectively and successfully collaborate with one another through whole group or small group activities and whole group or small group discussions. Within all activities, instruction, and discussions, students are encouraged and expected to be able to analyze information and provide evidence and explanation along with their thought processes. These skills are thoroughly and creatively utilized throughout the program, all while connecting to real-world problems and applications.

Students will expand upon their creativity and task management through various 21st-century and STEM-related activities and projects. Students will work individually or as a group on at least 4 projects throughout the year. These will emphasize the skills mentioned above, connecting their creativity, collaboration, and math content together.

Catasauqua Area School District

Course Title: Math

Grade Level: 7th

Course Syllabus

Course Content	Tentative Timeframe	Assessment Anchors	State Standards
Topic 1- Rational Number Operations	August / September	M07.A-N.1.1.1 M07.A-N.1.1.2 M07.A-N.1.1.3	CC.2.1.7.E.1
Topic 2 - Analyze and Use Proportional Relationships	October / November	M07.A-R.1.1.1 M07.A-R.1.1.2 M07.A-R.1.1.3 M07.A-R.1.1.4 M07.A-R.1.1.5 M07.A-R.1.1.6	CC.2.1.7.D.1
Topic 3 - Analyze and Solve Percent Problems	November / December	M07.A-R.1.1.1 M07.A-R.1.1.2 M07.A-R.1.1.3 M07.A-R.1.1.4 M07.A-R.1.1.6 M07.B-E.2.1.1 M07.B-E.2.2.1	CC.2.1.7.D.1 CC.2.2.7.B.3

		M07.B-E.2.2.2 M07.B-E.2.3.1 A1.1.1.4.1	
Topic 4 - Generate Equivalent Expressions	January	M07.B-E.1.1.1 M07.B-E.2.1.1 M07.B-E.2.2.1 M07.B-E.2.2.2 M07.B-E.2.3.1 A1.1.1.4.1	CC.2.2.7.B.1 CC.2.2.7.B.3
Topic 5 - Solve Problems Using Equations and Inequalities	January / February	M07.B-E.2.1.1 M07.B-E.2.2.1 M07.B-E.2.2.2 M07.B-E.2.3.1	CC.2.2.7.B.3
Topic 6 - Use Sampling To Draw Inferences About Populations	February / March	M07.D-S.1.1.1 M07.D-S.1.1.2 M07.D-S.2.1.1	CC.2.4.7.B.1 CC.2.4.7.B.2
Topic 7 - Probability	March / April	M07.D-S.3.1.1 M07.D-S.3.2.1 M07.D-S.3.2.2 M07.D-S.3.2.3 A1.2.3.3.1	CC.2.4.7.B.3
Topic 8 - Solve Problems Using Geometry	April / May	M07.C-G.2.1.1 M07.C-G.2.1.2 M07.C-G.2.2.1 M07.C-G.2.2.2 M07.C-G.1.1.1 M07.C-G.1.1.2 M07.C-G.1.1.3 M07.C-G.1.1.4	CC.2.3.7.A.1 CC.2.3.7.A.2

Teaching Strategies Utilized

Direct/Whole Group Instruction

Guided Practice

Class Discussions

Individualized Instruction

Homework

Formative Assessments

Summative Assessments

Diagnostic Assessments

Enrichment Activities

Peer/Teacher Tutoring

iPad Applications

Interactive Math Workbook

Simulations

Cooperative Learning

Station Rotations

Problem Solving

Modeling

Calculator Demonstrations

Interdisciplinary/21st Century Simulations

Spiral Review

3-Act mathematical modeling- Incorporating a real-world problem with a 7th grade math-based solution

STEM-based activities that include Next Generation Science Standards

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
<p>Topic 1 - Rational Number Operations</p> <p><i>The student will be able to:</i></p> <p>1-1 Relate Integers and Their Opposites - <i>Relate integers, their opposites, and their absolute values.</i></p> <p>1-2 Understand Rational Numbers - <i>Recognize rational numbers and write them in decimal form.</i></p> <p>1-3 Add Integers - <i>Add integers.</i></p> <p>1-4 Subtract Integers - <i>Subtract integers.</i></p> <p>1-5 Add and Subtract Rational Numbers - <i>Add and subtract rational numbers.</i></p> <p>1-6 Multiply Integers - <i>Multiply integers.</i></p> <p>1-7 Multiply Rational Numbers - <i>Multiply rational numbers.</i></p> <p>1-8 Divide Integers - <i>Divide integers.</i></p> <p>1-9 Divide Rational Numbers - <i>Divide rational numbers.</i></p> <p>1-10 Solve Problems with Rational Numbers - <i>Solve problems with rational numbers.</i></p>	<p>R, M</p> <p>R</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M, AP</p>	<p>Whole Group Instruction</p> <p>Small Group Instruction</p> <p>Station Rotation</p> <p>Individual Practice</p> <p>Small Group Practice</p> <p>Whole Group Practice</p> <p>Teacher Designed Activities</p> <p>Individual one-on-one assistance</p> <p>Peer remediation/ assistance</p> <p>Interdisciplinary Activity</p> <p>Topic Review</p>	<p>Quizzes</p> <p>End of Topic Test</p> <p>Homework</p> <p>Classwork</p> <p>Exit Tickets</p> <p>Individual Project</p> <p>Graded Activities</p> <p>Exact Path</p> <p>Graded Review Packets and Activities</p>	<p>M07.A-N.1.1.1 M07.A-N.1.1.2 M07.A-N.1.1.3</p>	<p>CC.2.1.7.E.1</p>
Resources/Materials					
<ul style="list-style-type: none"> - Envision Textbook - Envision Online Platform - Exact Path - PSSA Coach books - PDE SAS created worksheets and activities - Teacher Created Worksheets - Teacher Created Activities - Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.) - Google Applications - Tutor.com and Khan Academy for remediation - Manipulatives for practicing operations with rational numbers - CDT's (Classroom Diagnostic Testing) 					

Interdisciplinary Relationships & 21st Century Skills

- Meteorology - relating integers and rational to studying weather across the globe.
- Travel- using time zones and operations of integers to figure out flight patterns and time zone gaps.
- Relating integers and absolute values to health, fitness, and nutrition.
- Connecting integers and operations with integers to rock formations, volcanoes, and elevation levels.
- Consumer math- relating knowledge of integers to buying and selling products.

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
<p>Topic 2- Analyze and use Proportional Relationships</p> <p><i>The student will be able to:</i></p> <p>2-1 Connect Ratios, Rates, and Unit Rates</p> <ul style="list-style-type: none"> - <i>Use ratio concepts and reasoning to solve multi-step problems.</i> <p>2-2 Identify Unit Rates From Ratios of Fractions</p> <ul style="list-style-type: none"> - <i>Identify the relationship between ratios, rates, unit rates, and fractions</i> <p>2-3 Understand Proportional Relationships: Equivalent Ratios</p> <ul style="list-style-type: none"> - <i>Identify and create proportions and proportional relationships</i> <p>2-4 Describe Proportional Relationships: Constant of Proportionality</p> <ul style="list-style-type: none"> - <i>Identify and solve for the constant of proportionality</i> <p>2-5 Graph Proportional Relationships</p> <ul style="list-style-type: none"> - <i>Relate proportions to graphs</i> <p>2-6 Apply Proportional Reasoning to Solve Problems</p> <ul style="list-style-type: none"> - <i>Solve real-world problems using proportional reasoning</i> 	<p>R</p> <p>R</p> <p>M, AP</p> <p>M</p> <p>M</p> <p>M, AP</p>	<p>Whole Group Instruction</p> <p>Small Group Instruction</p> <p>Station Rotation</p> <p>Individual Practice</p> <p>Small Group Practice</p> <p>Whole Group Practice</p> <p>Teacher Designed Activities</p> <p>Individual one-on-one assistance</p> <p>Peer remediation/assistance</p> <p>Interdisciplinary Activity</p> <p>Topic Review</p>	<p>Quizzes</p> <p>End of Topic Test</p> <p>Homework</p> <p>Classwork</p> <p>Exit Tickets</p> <p>Individual Project</p> <p>Graded Activities</p> <p>Exact Path</p> <p>Graded Review Packets and Activities</p>	<p>M07.A-R.1.1.1</p> <p>M07.A-R.1.1.2</p> <p>M07.A-R.1.1.3</p> <p>M07.A-R.1.1.4</p> <p>M07.A-R.1.1.5</p> <p>M07.A-R.1.1.6</p>	<p>CC.2.1.7.D.1</p>

Resources/Materials

Envision Textbook
Envision Online Platform
iPads
Exact Path
PSSA Coach books
PDE SAS created worksheets and activities
Teacher Created Worksheets
Teacher Created Activities
Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.)
Google Applications
Tutor.com and Khan Academy for remediation
CDT's (Classroom Diagnostic Testing)

Interdisciplinary Relationships & 21st Century Skills

- Consumer Math- Using proportional reasoning to provide equal ratios of produce.
- Sales and Marketing- using proportional reasoning and unit rates to compare for a better purchase.
- Fitness/health- Using proportional reasoning to develop and use equivalent activities.
- Planning- Using ratios and proportions to decide what and how much to bring on vacations and trips.
- Baking/cooking- using ratios and proportions to determine the number of ingredients for specific recipes and groups.

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th Grade

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
Topic 3- Analyze and Solve Percent Problems <i>The student will be able to:</i> 3-1 Analyze Percents of Numbers - Understand what percentages represent and how to represent them. 3-2 Connect Percent and Proportions - Use proportions to solve percent problems. 3-3 Represent and Use the Percent Equation - Solve percent problems using proportional relationships. 3-4 Solve Percent Change and Percent Error Problems - Understand how different percentages relate to one another. 3-5 Solve Markup and Markdown Problems - Relate percent change and error to consumer math. 3-6 Solve Simple Interest Problems - Connect understanding of percentages and proportions to consumer math.	 R, M M, AP M, AP AP AP M, AP	Whole Group Instruction Small Group Instruction Station Rotation Individual Practice Small Group Practice Whole Group Practice Teacher Designed Activities Individual one-on-one assistance Peer remediation/assistance Interdisciplinary Activity Topic Review	Quizzes End of Topic Test Homework Classwork Exit Tickets Group Project Graded Activities Exact Path Graded Review Packets and Activities	M07.A-R.1.1.1 M07.A-R.1.1.2 M07.A-R.1.1.3 M07.A-R.1.1.4 M07.A-R.1.1.6 M07.B-E.2.1.1 M07.B-E.2.2.1 M07.B-E.2.2.2 M07.B-E.2.3.1 A1.1.1.4.1	CC.2.1.7.D.1 CC.2.2.7.B.3

Resources/Materials

Envision Textbook
 Envision Online Platform
 Exact Path
 PSSA Coach books
 PDE SAS created worksheets and activities
 Teacher Created Worksheets
 Teacher Created Activities
 Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.)
 Google Applications
 Tutor.com and Khan Academy for remediation
 CDT's (Classroom Diagnostic Testing)

Interdisciplinary Relationships & 21st Century Skills

- Consumer math- using proportions and percentages to solve markup, discount, and sales tax problems.
- Sports analysis- using percent and percent error to analyze and compare different components of sports.
- Relating understanding of percents to geography, ratios of land and water.
- Comparing distances of planets and other components of the solar system using percentages.
- Data- understanding how percentages relate to bar graphs and other displays of data.

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th Grade

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
<p>Topic 4- Generate Equivalent Expressions</p> <p><i>The student will be able to:</i></p> <p>4-1 Write and Evaluate Algebraic Expressions</p> <ul style="list-style-type: none"> - <i>Understand, create, and solve algebraic expressions.</i> <p>4-2 Generate Equivalent Expressions</p> <ul style="list-style-type: none"> - <i>Create expressions with the same values.</i> <p>4-3 Simplify Expressions</p> <ul style="list-style-type: none"> - <i>Identify and combine like terms.</i> <p>4-4 Expand Expressions</p> <ul style="list-style-type: none"> - <i>Create like terms to expand an expression.</i> <p>4-5 Factor Expressions</p> <ul style="list-style-type: none"> - <i>Use the distributive property to simplify or expand expressions.</i> <p>4-6 Add Expressions</p> <ul style="list-style-type: none"> - <i>Combine multiple expressions.</i> <p>4-7 Subtract Expressions</p> <ul style="list-style-type: none"> - <i>Combine multiple expressions.</i> <p>4-8 Analyze Equivalent Expressions</p> <ul style="list-style-type: none"> - <i>Use an equivalent expression to find new information.</i> 	<p>R, AP</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M, AP</p>	<p>Whole Group Instruction</p> <p>Small Group Instruction</p> <p>Station Rotation</p> <p>Individual Practice</p> <p>Small Group Practice</p> <p>Whole Group Practice</p> <p>Teacher Designed Activities</p> <p>Individual one-on-one assistance</p> <p>Peer remediation/assistance</p> <p>Interdisciplinary Activity</p> <p>Topic Review</p>	<p>Quizzes</p> <p>End of Topic Test</p> <p>Homework</p> <p>Classwork</p> <p>Exit Tickets</p> <p>Individual Project</p> <p>Graded Activities</p> <p>Exact Path</p> <p>Graded Review Packets and Activities</p>	<p>M07.B-E.1.1.1</p> <p>M07.B-E.2.1.1</p> <p>M07.B-E.2.2.1</p> <p>M07.B-E.2.2.2</p> <p>M07.B-E.2.3.1</p> <p>A1.1.1.4.1</p>	<p>CC.2.2.7.B.1</p> <p>CC.2.2.7.B.3</p>

Resources/Materials

- Envision Textbook
- Envision Online Platform
- Exact Path
- PSSA Coach books
- PDE SAS created worksheets and activities
- Teacher Created Worksheets

- Teacher Created Activities
- Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.)
- Google Applications
- Tutor.com and Khan Academy for remediation
- CDT's (Classroom Diagnostic Testing)

Interdisciplinary Relationships & 21st Century Skills

- Using text dependent analysis skills from English/Language Arts to find important information to write and solve expressions.
- Consumer math- using expressions and algebra to create and solve tasks involving buying and selling products.
- Using the multi-step approach to solving multi-step problems across all subjects.

Catasauqua Area School District

Course Title: Mathematics

Grade Level: 7th Grade

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
Topic 5- Solve Problems Using Equations and Inequalities <i>The student will be able to:</i> 5-1 Write Two-step Equations - Represent a problem with a two-step equation. 5-2 Solve Two-step Equations - Solve a problem with a two-step equation. 5-3 Solve Equations Using the Distributive Property - Use the distributive property to solve equations. 5-4 Solve Inequalities Using Addition or Subtraction - Solve inequalities using addition or subtraction. 5-5 Solve Inequalities using Multiplication or Division - Solve inequalities using multiplication or division. 5-6 Solve Two-Step Inequalities - Write and solve two-step inequalities. 5-7 Solve Multi-step Inequalities - Solve a problem with a multi-step inequality.	AP M M M M M	Whole Group Instruction Small Group Instruction Station Rotation Individual Practice Small Group Practice Whole Group Practice Teacher Designed Activities Individual one-on-one assistance Peer remediation/assistance Interdisciplinary Activity Topic Review	Quizzes End of Topic Test Homework Classwork Exit Tickets Individual Project Graded Activities Exact Path Graded Review Packets and Activities	M07.B-E.2.1.1 M07.B-E.2.2.1 M07.B-E.2.2.2 M07.B-E.2.3.1	CC.2.2.7.B.3
Resources/Materials					

- Envision Textbook
- Envision Online Platform
- Exact Path
- PSSA Coach books
- PDE SAS created worksheets and activities
- Teacher Created Worksheets
- Teacher Created Activities
- Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.)
- Google Applications
- Tutor.com and Khan Academy for remediation
- CDT's (Classroom Diagnostic Testing)

Interdisciplinary Relationships & 21st Century Skills

- Error analysis- looking at an algebraic equation or inequality and being able to identify and explain error(s) and identify and explain a solution.
- Consumer math- using mathematical properties and algebraic skills to solve problems involving buying and selling products.

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th Grade

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
<p>Topic 6 - Use Sampling To Draw Inferences About Populations</p> <p><i>The student will be able to:</i></p> <p>6-1 Populations and Samples</p> <ul style="list-style-type: none"> - Determine if a sample is representative of a population. <p>6-2 Draw Inferences from Data</p> <ul style="list-style-type: none"> - Make inferences about a population from a data sample set. <p>6-3 Make Comparative Inferences about Populations</p> <ul style="list-style-type: none"> - Draw comparative inferences about two populations using median and interquartile range. <p>6-4 Make More Comparative Inferences About Populations</p> <ul style="list-style-type: none"> - Compare populations using the mean, median, mode, range, interquartile range, and mean absolute deviation. 	<p>AP</p> <p>AP</p> <p>AP</p> <p>AP</p>	<p>Whole Group Instruction</p> <p>Small Group Instruction</p> <p>Station Rotation</p> <p>Individual Practice</p> <p>Small Group Practice</p> <p>Whole Group Practice</p> <p>Teacher Designed Activities</p> <p>Individual one-on-one assistance</p> <p>Peer remediation/assistance</p> <p>Interdisciplinary Activity</p> <p>Topic Review</p>	<p>Quizzes</p> <p>End of Topic Test</p> <p>Homework</p> <p>Classwork</p> <p>Exit Tickets</p> <p>Individual Project</p> <p>Graded Activities</p> <p>Exact Path</p> <p>Graded Review Packets and Activities</p>	<p>M07.D-S.1.1.1</p> <p>M07.D-S.1.1.2</p> <p>M07.D-S.2.1.1</p>	<p>CC.2.4.7.B.1</p> <p>CC.2.4.7.B.2</p>

Resources/Materials

- Envision Online Platform
- Exact Path
- PSSA Coach books
- PDE SAS created worksheets and activities
- Teacher Created Worksheets
- Teacher Created Activities
- Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.)
- Google Applications
- Tutor.com and Khan Academy for remediation
- CDT's (Classroom Diagnostic Testing)

- Using populations and samples to survey, record, and analyze student-generated polls.
- Using English-Language Arts analysis skills to determine what makes a good survey question.
- Town/Global Awareness- Creating and analyzing survey results and data to make inferences and create real-world solutions (3-Act Mathematical Modeling).
- Inferencing- Looking at data and graphs and being able to analyze and infer accurately.

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th Grade

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
Topic 7- Probability					
<i>The student will be able to:</i>					
7-1 Understand Likelihood and Probability - Describe the likelihood that an event will occur.	M	Whole Group Instruction Small Group Instruction	Quizzes End of Topic Test	M07.D-S.3.1.1 M07.D-S.3.2.1 M07.D-S.3.2.2 M07.D-S.3.2.3 A1.2.3.3.1	CC.2.4.7.B.3
7-2 Understand Theoretical Probability - Determine the theoretical probability of an event.	M	Station Rotation Individual Practice	Homework Classwork		
7-3 Understand Experimental Probability - Determine the experimental probability of an event.	M	Small Group Practice Whole Group Practice	Exit Tickets Individual Project		
7-4 Use Probability Models - Use probability models to find probabilities of events.	AP	Interactive Probability simulations	Graded Activities Exact Path		
7-5 Determine Outcomes of Compound Events - Find all possible outcomes of a compound event.	M	Teacher Designed Activities Individual one-on-one assistance	Graded Review Packets and Activities		
7-6 Find Probabilities of Compound Events - Find the probability of a compound event.	AP	Peer remediation/assistance			
7-7 Simulate Compound Events - Simulate a compound event to approximate its probability.	AP, M	Interdisciplinary Activity Topic Review			
Resources/Materials					
<ul style="list-style-type: none"> - Envision Textbook - Envision Online Platform - Exact Path - PSSA Coach books - PDE SAS created worksheets and activities - Teacher Created Worksheets - Teacher Created Activities - Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.) - Google Applications - Tutor.com and Khan Academy for remediation - CDT's (Classroom Diagnostic Testing) 					
Interdisciplinary Relationships & 21st Century Skills					
<ul style="list-style-type: none"> - Simulating- creating and conducting accurate probability models and games. - Inferencing- making accurate predictions based on real-world experiments and trials. - Connecting probability experiments to global issues and providing potential solutions. - Connecting probability reasoning to analyzing odds and statistics. 					

Catasauqua Area School District
Course Title: Mathematics
Grade Level: 7th Grade

Objectives	Level of Ach.	Suggested Learning Activities	Forms of Assessment	Assess. Anchor	PA Stand.
<p>Topic 8- Solve Problems Involving Geometry</p> <p><i>The student will be able to:</i></p> <p>8-1 Solve Problems Involving Scale Drawings - <i>Use the key in a scale drawing to find missing measures.</i></p> <p>8-2 Draw Geometric Figures - <i>Draw figures with given conditions.</i></p> <p>8-3 Draw Triangles with Given Conditions - <i>Draw triangles when given information about their side lengths and angle measures.</i></p> <p>8-4 Solve Problems using Angle Relationships - <i>Solve problems involving angle relationships.</i></p> <p>8-5 Solve Problems Involving Circumference of a Circle - <i>Solve problems involving radius, diameter, and circumference of circles.</i></p> <p>8-6 Solve Problems Involving Area of a Circle - <i>Solve problems involving the area of a circle.</i></p> <p>8-7 Describe Cross Sections - <i>Determine what the cross section looks like when a 3D model figure is sliced.</i></p> <p>8-8 Solve Problems Involving Surface Area - <i>Find the area and surface area of 2-dimensional composite shapes and 3-dimensional prisms.</i></p> <p>8-9 Solve Problems Involving Volume - <i>Use the area of the base of a three-dimensional figure to find its volume.</i></p>	<p>M, AP</p> <p>M, AP</p> <p>M, AP</p> <p>M, AP</p> <p>M, AP</p> <p>M, AP</p> <p>M, AP</p> <p>M, AP</p> <p>M, AP</p>	<p>Whole Group Instruction</p> <p>Small Group Instruction</p> <p>Station Rotation</p> <p>Individual Practice</p> <p>Small Group Practice</p> <p>Whole Group Practice</p> <p>Interactive Activities based on finding surface area and volume</p> <p>Interactive activities based on specific shapes</p> <p>Teacher Designed Activities</p> <p>Individual one-on-one assistance</p> <p>Peer remediation/assistance</p> <p>Interdisciplinary Activity</p> <p>Topic Review</p>	<p>Quizzes</p> <p>End of Topic Test</p> <p>Homework</p> <p>Classwork</p> <p>Exit Tickets</p> <p>Individual Project</p> <p>Graded Activities</p> <p>Exact Path</p> <p>Graded Review Packets and Activities</p>	<p>M07.C-G.2.1.1 M07.C-G.2.1.2 M07.C-G.2.2.1 M07.C-G.2.2.2 M07.C-G.1.1.1 M07.C-G.1.1.2 M07.C-G.1.1.3 M07.C-G.1.1.4</p>	<p>CC.2.3.7.A.1 CC.2.3.7.A.2</p>

Resources/Materials

- Envision Textbook
- Envision Online Platform
- Exact Path
- PSSA Coach books
- PDE SAS created worksheets and activities
- Teacher Created Worksheets
- Teacher Created Activities
- Variety of Online Programs (Nearpod, Quizizz, Gimkit, etc.)
- Google Applications
- Tutor.com and Khan Academy for remediation
- CDT's (Classroom Diagnostic Testing)

Interdisciplinary Relationships & 21st Century Skills

- Architecture- using geometry skills and reasoning to answer questions and analyze architecture around the world.
- Landscaping/blueprinting- Creating, solving, and analyzing problems related to landscaping and blueprints of buildings.
- Connecting geometric concepts to studying ancient architecture in Social Studies.
- Construction- creating a two-dimensional or three-dimensional figure based off of description(s).