

Unit: 1.1	Algebraic Reasoning	Days : 10
Essential Questions		
How can you use the order of operations to solve problems? How do you write equivalent expressions using properties? How do you evaluate algebraic expressions? How can you write an expression from a given situation? How do you add, subtract, and multiply algebraic expression?		
Content to be Learned		Skills
Use order of operations Write equivalent expression Evaluate algebraic expression Write expression from given situation Operate with algebraic expressions		
Assessments		Standards
To be determined		cc.7.ee.3 cc.7.ns.1d cc.7.ee2 cc.7.ee.4 cc.7.ee1
Sample Instructional Activities		Resources
QR Video tutor		ECM Chapter 1 Lessons 1-5 Problem solving connections

Unit: 1.2	Integers and Rational Numbers	Days : 20
Essential Questions		
How do you describe situations using opposites? How do you add, subtract, multiply, and divide rational numbers? How do solve equations containing integers? How can you convert a rational number to a decimal How can you compare and order rational numbers?		
Content to be Learned		Skills
Operation with rational numbers Solve equations with integers and rational numbers Convert rational numbers to decimals Compare and order rational numbers		
Assessments		Standards
		cc.7.ns.1a cc.7.ns.1b cc.7.ns.1c cc.7.ns.2 cc.7.ns.2a cc.7.ns.2b cc.7.ns.2d cc.7.ee.3 cc.7.ee.4
Sample Instructional Activities		Resources
QR video tutor		ECM Chapter 2 Lessons 1-7 problem solving connections

Unit: 2.1	Applying Rational Numbers	Days :20
Essential Questions		
How do you add, subtract, multiply, and divide decimals? How do you add, subtract, multiply, and divide fractions? How do you solve equations containing decimals and fractions?		
Content to be Learned		Skills
Operate with decimals Operate with fractions Solve one-step equations containing decimals and fractions		
Assessments		Standards
To be determined		<p>CCSS.Math.Content.7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <p>CCSS.Math.Content.7.NS.A.2a Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.</p> <p>CCSS.Math.Content.7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.¹</p> <p>CCSS.Math.Content.7.EE.B.4a Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. <i>For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</i></p>
Sample Instructional Activities		Resources
Show Video Tutor with QR reader for each lesson.		ECM Chapter 3 Lessons 1 – 8 and Problem Solving Connections and Performance Task

Unit:2.2	Grade 7 Multi Step Equations and Inequalities (Ch 11)	Days : 18
Essential Questions		
How do you solve two step and multi step equations as well as equations with variables on both sides? How do you read, write, and graph inequalities? How do you solve inequalities including multi-step inequalities using the properties of inequalities?		
Content to be Learned		Skills
Solving two step equations. Solving Multi-step equations. Solving equations with variables on both sides. Inequalities. Solving inequalities by Adding or Subtracting. Solving inequalities by multiplying or dividing. Solving multi-step inequalities.		
Assessments	Standards	
To be determined	<p>CCSS.Math.Content.7.EE.A.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.</p> <p>CCSS.Math.Content.7.EE.B.4a Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</p> <p>CCSS.Math.Content.7.EE.B.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p>	
Sample Instructional Activities		Resources
Show Video Tutor with QR Reader for each lesson.		ECM Chapter 11 Lessons 1-7 and Problem Solving Connections and Performance Task

Unit: 3.1	Chapter 5 Graphs	Days : 10
Essential Questions		
How do you use graphs to: interpret a situation, identify rate of change, slope, use graph to analyze proportional relations, write equations to represent proportional relationships		
Content to be Learned		Skills
Graphing ordered pairs on the coordinate plane Interpret graphs Slopes and rates of change Direct variation		
Assessments		Standards
To be determined		Prep for CC.7.RP.2d Preview CC.8.F.5 CC.7.RP.1 CC.7.RP.2 CC.7.RP.2a CC.7.RP.2b CC.7.RP.2c CC.7.RP.2d CC.7.RP.3
Sample Instructional Activities		Resources
Show Video Tutoe with QR reader for each lesson		ECM Chapter 5 Lesson 1 – 4, Problem Solving Connection, and Performance Task

Unit: 3.2	Proportional Relationships	Days : 15
Essential Questions		
How do you find and compare unit rates? How do you identify and write proportions? How do you solve proportions? How you model similar figures? How do use similar figures and models to find unknown lengths? How can you use scaled drawings to solve problems?		
Content to be Learned		Skills
Find and compare unit rates Identify, write and solve proportions Apply proportions to similar figures and scaled drawings		
Assessments		Standards
		cc.7.ns.3 cc.7.rp.1 cc.7.rp.2 cc.7.rp.2a cc.7.rp.2c cc.7.g.1
Sample Instructional Activities		Resources
Qr video tutor		ECM Chapter 4 Lesson 1- 6, Problem solving connections

Unit: 3.3	Percents	Days : 10
Essential Questions		
How can you solve problems involving decimals, percent, and fractions? How do you estimate percents? How can you rewrite expressions to help you solve problems? How do you find percent of change? How do you use percents to solve problems? How do you solve problems involving simple interest?		
Content to be Learned		Skills
Solve problems involving fractions, decimals, and percents Rewrite expressions to solve problems Find percent of change Use percents to solve problems Solve simple interest problems		
Assessments		Standards
		cc.7.ee.2 cc.7.ee.3 cc.7.rp.3
Sample Instructional Activities		Resources
QR video tutor		ECM Chapter 6 Lesson 1-6 problem solving connection

Unit: 4.1	Collecting, Displaying and Analyzing Data	Days : 10
Essential Questions		
How can you determine the measures of center of a data set? How can you use measures of center and variability to compare two populations? How can you use a sample to gain information about a population and compare predictions about a population?		
Content to be Learned		Skills
Find the measures of center Find the measure of variability Use measure of center and variability to compare populations and make predictions		
Assessments		Standards
		cc.7.sp.1 cc.7.sp.2 cc.7.sp.3 cc.7.sp.4
Sample Instructional Activities		Resources
QR Video Tutor		ECM Chapter 7 Lesson 1 – 3 Problem solving Connection

Unit: 4.2	Probability	Days : 10
Essential Questions		
How can you describe the likelihood of an event? How do you find the experimental probability of an event? How can you find the theoretical probability of an event? How do you make decisions on predictions? How do you find probability with and without replacement?		
Content to be Learned		Skills
Describe the likely hood of an event Calculate experimental and theoretical probability Make decisions using probability Independent and dependent events		
Assessments		Standards
		cc.7.sp.5 cc.7.sp.6 cc.7.sp.7a cc.7.sp.7b cc.7.sp.8 cc.7.sp.8.c
Sample Instructional Activities		Resources
QR Video tutor		ECM Chapter 10 Lesson 1 – 6 Problem solving Connection

Unit: 4.3	Chapter 8 Geometric Figures	Days :10
Essential Questions		
<p>How do you identify and describe basic geometric figures? How do you use angle pairs to solve problems? How do you use vertical angles to solve problems with figures? How do you draw shapes that satisfy given conditions? How do you produce congruent figures on the coordinate plane?</p>		
Content to be Learned		Skills
<p>Angles and angle relationships Construct congruent triangles Transformations on the coordinate plane</p>		
Assessments		Standards
To be determined		<p>Prep for CC.7.G.5 CC.7.G.5CC.7.G.2 preview CC.8.G.2</p>
Sample Instructional Activities		Resources
Show video tutor with QR reader for each lesson		<p>ECM Chapter 8 Lesson 1 – 5, problem solving connections, and Performance Tasks Geometry software Protractors, straight edge, compass, scissors, tracing paper Graph paper</p>