

PowerTeaching Math 3rd Edition: Grade 7

Abbreviated Scope and Sequence

The PowerTeaching Math 3rd Edition: Grade 7 Scope and Sequence is a guide for the content covered in each lesson of the PowerTeaching grade 7 curriculum. Additionally, the scope and sequence visually demonstrates the structure of PowerTeaching, showing how the lessons are divided into units and cycles based on math content and providing a picture of when media, tools, and routines are introduced and used within each lesson cycle. The scope and sequence also lists the Common Core State Standards for Mathematical Practice and Content that apply to each lesson.

The scope and sequence is also a guide to the order in which the PowerTeaching lessons are intended to be taught. This order is provided so concepts can be introduced and then later reviewed as a part of new skills. Similarly, problem-solving strategies are first introduced then applied to later word problems and real-world math situations.

Getting Started

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 1 – Getting Started	Cycle 1 – Getting Started	1 – Welcome to PowerTeaching Math	Learn the basics of cooperative learning and teamwork, learn about Vocabulary Vault, and then take a pretest.	n/a
		2 – Working Together	Learn the student routines for Team Mastery with role cards and the Lightning Round.	CC MP1
		3 – Think Like a Mathematician: Making Sense 1	Learn the opening routines, the Think Like a Mathematician practices and Random Reporter rubric criteria, and the team cooperation goals.	CC MP1
		4 – Think Like a Mathematician: Making Sense 2	Ignore extraneous data to make sense of problems and solve them.	CC MP1
		5 – Think Like a Mathematician: Making Sense 3	Make sense of complex problems by solving simpler ones.	CC MP1
		6 – Assessment Day, Part 1	Demonstrate mastery of unit content, and learn about assessment routines and prep points.	CC MP1
		7 – Assessment Day, Part 2	Complete prep points, open the Vocabulary Vault, complete the team-scoring student routine, and celebrate.	CC MP1

The Number System

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 2 – Adding and Subtracting Rational Numbers	Cycle 1 – Adding Rational Numbers	1 – Definition of Rational Numbers	Define and explore rational numbers. (CC 6.NS.C.6; TEKS 7.b.2; VA SOL 6.3a)	CC MP 1, 3, and 5
		2 – Adding Opposites	Add opposite rational numbers to a sum of zero in context. (CC 7.NS.A.1a and b; TEKS 6.b.2.B and 3.C; VA SOL 7.1e, 7.3a, 7.16d)	CC MP 3, 4, and 5
		3 – Adding Rational Numbers 1	Use manipulatives and pictures to add integers. (CC 7.NS.A.1c; TEKS 6.b.3.C; VA SOL 7.1e and 7.3a)	CC MP 3, 4, and 5
		4 – Adding Rational Numbers 2	Use algorithms to add rational numbers. (CC 7.NS.A.1d; TEKS 7.b.3; VA SOL 7.3b, 7.16a, c-d)	CC MP 1, 3, 4, and 6
	Adding Rational Numbers Assessment			
	Cycle 2 – Subtracting Rational Numbers	1 – Subtracting Integers	Use number lines, algebra tiles, and charged fields to subtract integers. (CC 7.NS.A.1c; TEKS 6.b.2.C; VA SOL 7.3a)	CC MP 1, 3, 5, and 6
		2 – Using Properties to Subtract Rational Numbers	Use the properties of addition to subtract rational numbers. (CC 7.NS.A.1c and d; TEKS 7.b.3; VA SOL 7.3b, 7.16a, c-d)	CC MP 1, 2, 7, and 8
		3 – Subtracting Rational Numbers	Use algorithms to subtract rational numbers. (CC 7.NS.A.1d; TEKS 7.b.3; VA SOL 7.16a, c-d)	CC MP 3, 4, 6, and 7
		4 – Adding and Subtracting Rational Numbers	Add and subtract rational numbers to solve real-world situations. (CC 7.NS.A.1; TEKS 7.b.3; VA SOL 7.3b, 7.16)	CC MP 2, 3, 4, 6, and 7
		5 – Think Like a Mathematician: Build a Math Model 1	Use the Sort and List strategy to solve problems. (CC MP 4; TEKS 7.b.1.E)	CC MP 1, 2, 3, 4 and 7
	Adding and Subtracting Rational Numbers Assessment			

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 3 – Multiplying and Dividing Rational Numbers	Cycle 1 – Multiplying Rational Numbers	1 – Multiplying Integers	Use manipulatives and drawings to multiply integers. (CC 7.NS.A.2; TEKS 6.b.3.C; VA SOL 7.3a)	CC MP 3, 4, 5, and 8
		2 – Using Properties to Multiply Integers	Use the properties of multiplication, especially the distributive property, to multiply integers. (CC 7.NS.A.2a and c; TEKS 6.b.3.D; VA SOL 7.3, 7.16)	CC MP 3, 4, 5, 7, and 8
		3 – Multiplying Rational Numbers	Use algorithms to multiply rational numbers. (CC 7.NS.A.2a; TEKS 7.b.3; VA SOL 7.16)	CC MP 3, 7, and 8
		4 – Multiplying Rational Numbers to Solve Real-World Problems	Use problem-solving strategies to solve problems that involve multiplying rational numbers. (CC 7.NS.A.2c; TEKS 7.b.3; VA SOL 7.16)	CC MP 2, 3, 6, and 7
	Multiplying Rational Numbers Assessment			
	Cycle 2 – Dividing Rational Numbers	1 – Using Properties to Divide Integers	Use properties of operations to divide integers. (CC 7.NS.A.2c; TEKS 6.b.3.B-C; VA SOL 7.16)	CC MP 1, 2, 4, and 8
		2 – Dividing Rational Numbers	Use algorithms to divide rational numbers. (CC 7.NS.A.2; TEKS 7.b.3; VA SOL 7.16)	CC MP 1, 2, 3 and 7
		3 – Rational Numbers as Decimals	Use long division to convert rational numbers to decimals. (CC 7.NS.A.2d; TEKS 6.b.2.E, 7.b.3; VA SOL 8.2CF)	CC MP 1, 3, 6, and 7
		4 – Using the Four Operations to Solve Real-World Problems	Add, subtract, multiply, and divide rational numbers to solve real-world problems. (CC 7.NS.A.3; TEKS 7.b.3; VA SOL 7.3, 7.16)	CC MP 1, 2, 3, 4, 5, and 6
		5 – Think Like a Mathematician: Build a Math Model 2	Model the problem. (CC MP 4; TEKS 7.b.1.E)	CC MP 4
	Multiplying and Dividing Rational Numbers Assessment			

Cycle 3 - Performance Task Cycle	Rational Numbers Performance Task (Underwater Exploration)	Three-day cycle project that students will complete in teams and individually by combining skills learned during units 1, 2, and 3. (CC MP.1, 7.NS.A.1-3; TEKS 7.b.1.B, 7.b.3; VA SOL 7.3, 7.16)	CC MP 1, 2, 3, 4
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Ratios and Proportional Relationships

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 4 – Ratios and Proportions	Cycle 1 – Unit Rates	1 – Basic Unit Rates	Find unit rates involving whole numbers and decimals. (CC 6.RP.A.2 and CC 7.RP.A.1; TEKS 7.b.4.B; VA SOL 7.4, 7.4CF)	CC MP 2, 3 and 6
		2 – Unit Rates with Fractions	Find unit rates using data with fractions. (CC 7.RP.A.1; TEKS 7.b.4.B; VA SOL 7.4, 7.4CF)	CC MP 3, 4, and 6
		3 – Problem Solving with Unit Rates	Solve multistep problems involving unit rates. (CC 7.RP.A.1; TEKS 7.b.4.B and D; VA SOL 7.4)	CC MP 1, 2, 3, and 4
		Unit Rates Assessment		
	Cycle 2 – Proportional Relationships	1 – Defining Proportional Relationships	Identify proportional and nonproportional relationships. (CC 7.RP.A.2a; TEKS 6.b.4.A, 8.b.5.F; VA SOL 7.4, 7.6, 7.12)	CC MP 2, 3, and 4
		2 – Solving Proportions	Use proportions to solve real-world problems. (CC 7.RP.A.2a; TEKS 7.b.4.A; VA SOL 7.4, 7.4CF)	CC MP 2, 3, 4, and 6
		3 – Proportions in Tables and Graphs	Identify proportionality in tables and graphs. (CC 7.RP.A.2a and d; TEKS 7.b.4.A; VA SOL 7.4, 7.4CF, 7.12)	CC MP 1, 2, 3, 4, and 5
		4 – Problem Solving with Proportions 1	Solve multistep problems involving proportions. (CC 7.RP.A.2 and 3; TEKS 7.b.4.A and D; VA SOL 7.4)	CC MP 1, 2, 3, 4, and 6
		Proportional Relationships Assessment		
	Cycle 3 – Equations and Proportional Relationships	1 – Constant of Proportionality	Identify the constant of proportionality. (CC 7.RP.A.2b; TEKS 7.b.4.C; VA SOL 7.4)	CC MP 3, 7, and 8
		2 – Represent a Proportion as an Equation	Write equations for proportions, using k as the constant of proportionality. (CC 7.RP.A.2c; TEKS 7.b.4.A and C; VA SOL 7.4)	CC MP 2, 3, and 4
		3 – Interpret Points of a Proportional Relationship	Explain what a point on a graph of a proportional relationship means in terms of a situation. (CC 7.RP.A.2d; TEKS 7.b.4.A and C; VA SOL 7.4, 7.12)	CC MP 1 and 2
		4 – Problem Solving with Proportions 2	Identify independent and dependent variables and solve real-world problems involving proportions. (CC 7.RP.A.2; TEKS 7.b.4.A and C; VA SOL 7.4, 7.12)	CC MP 1, 2, 3, 4, and 6
		5 – Think Like a Mathematician: Find the Patterns and Structure 1	Find a pattern. (CC MP 7; TEKS 7.b.1.F)	CC MP 7
		Ratios and Proportions Assessment		

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 5 – Percents	Cycle 1 – Percents	1 – Understanding Percent	Solve simple problems involving percents. (CC6.RP.A.3c; TEKS 7.b.4.D; VA SOL 7.4CF, 8.3)	CC MP 3, 6, and 7
		2 – Discounts and Markups	Explore percent increase and percent decrease. (CC 7.RP.A.3; TEKS 7.b.4.D; VA SOL 7.4, 8.3)	CC MP 1, 2, 3, 4
		3 – Percent Change and Percent Error	Find the percent change and percent error. (CC.7.RP.A.3; TEKS 7.b.4.D; VA SOL 7.4, 8.3)	CC MP 3 and 6
		4 – Simple Interest	Solve real-world problems by calculating simple interest. (CC.7.RP.A.3; TEKS 7.b.4.D; VA SOL 7.4, 8.3)	CC MP 2, 3, 6, and 7
		5 – Multistep Percent Problems	Solve multistep word problems involving percents. (CC.7.RP.A.3; TEKS 7.b.4.D; VA SOL 7.4, 8.3)	CC MP 1, 3, and 6
		6 – Think Like a Mathematician: Making Sense 4	Use the guess-and-check strategy to solve problems. (CC MP 1; TEKS 7.b.1.B)	CC MP 1
		Percents Assessment		
Cycle 2 – Performance Task		Ratios and Percents Performance Task (Starting a Sports Team)	Three-day cycle in which students apply ratio and proportional relationships to a complex task. (CC 7.RP.A.1–3; TEKS 7.b.4; VA SOL 7.4, 8.3)	CC MP 1, 2, 3, 4, 6, and 7

Expressions and Equations

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 6 – Rewriting Expressions	Cycle 1 – Rewriting Expressions	1 – Equivalent Algebraic Expressions	Rewrite algebraic expressions with rational coefficients. (CC 7.EE.A.1; TEKS 6.b.7.A and D; VA SOL 7.13a)	CC MP 3, 7, and 8
		2 – Evaluating Algebraic Expressions	Given values for variables, evaluate algebraic expressions. (CC 7.EE.A.1; TEKS 6.b.7; VA SOL 7.13b)	CC MP 3 and 7
		3 – Writing Expressions with Percents	Write algebraic expressions to represent percent situations. (CC 7.RP.A.2c; TEKS 7.b.4; VA SOL 7.4, 7.12)	CC MP 2, 3, and 6
		4 – Writing Expressions Multiple Ways	Write expressions for contextual situations in different ways. (CC 7.EE.A.2; TEKS 6.b.7; VA SOL 7.13a)	CC MP 2, 3, and 7
		5 – Writing and Evaluating Expressions	Write numeric expressions to solve complex real-world math situations. (CC 6.EE.A.1; TEKS 7.b.7; VA SOL 7.13)	CC MP 2, 3, and 7
		6 – Think Like a Mathematician: Find the Patterns and Structure 2	Work backward. (CC MP 7; TEKS 7.b.1.B and F)	CC MP 7
		Rewriting Expressions Assessment		

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 7 – Equations and Inequalities	Cycle 1 – Writing and Solving Equations	1 – Solving Two-Step Equations	Solve equations with two steps that can include addition, subtraction, multiplication, or division. (CC 7.EE.B.4a; TEKS 7.b.11.A; VA SOL 7.14)	CC MP 1, 3, and 7
		2 – Solving Equations with Rational Numbers	Solve equations with multiple steps that can include the four operations and all rational numbers. (CC 7.EE.B.4a; TEKS 8.b.8.C; VA SOL 8.15a)	CC MP 1, 2, 3, and 7
		3 – Writing and Solving Equations for Real-World Situations	Write and solve multiple-step equations for given real-world situations. (CC 7.EE.B.3; TEKS 8.b.8.A–C; VA SOL 8.15a)	CC MP 2, 3, and 4
	Writing and Solving Equations Assessment			
	Cycle 2 – Writing and Solving Inequalities	1 – Solving Single-Step Inequalities	Solve simple inequalities with rational numbers, and graph the solution. (CC 7.EE.B.4b; TEKS 7.b.10.B, 11.A and B; VA SOL 7.15)	CC MP 3, 4, 6, and 7
		2 – Solving Multiple-Step Inequalities	Solve multiple-step inequalities with rational numbers, and graph the solution. (CC 7.EE.B.4b; TEKS 7.b.11.A and B, 8.b.8; VA SOL 8.15b)	CC MP 1, 3, 5, 6, and 7
		3 – Solving Inequalities to Answer Questions	Solve given inequalities to answer questions. (CC 7.EE.B.3; TEKS 7.b.11.A and B; VA SOL 7.15)	CC MP 1, 2, 3, 4, and 6
		4 – Writing and Solving Inequalities for Real-World Situations	Write and solve inequalities for real-world situations. (CC 7.EE.B.3 and 4b; TEKS 7.b.10.A and B; VA SOL 7.15)	CC MP 2, 3, and 4
		Equations and Inequalities Assessment		

Geometry

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 8 – Geometry and Shapes	Cycle 1 – Scale Drawings	1 – Area, Perimeter, and Volume	Find area, perimeter, and volume for various polygons and shapes. (CC 6.G.1 and 2; TEKS 6.b.8.C and D; VA SOL 5.8, 6.10c and d)	CC MP 3, 4, 5, and 8
		2 – Using Scale Drawings to Find Length	Use scale drawings to find missing lengths. (CC 7.G.A.1; TEKS 7.b.5.A and C; VA SOL 7.4)	CC MP 3, 4, 5, 7, and 8
		3 – Completing Scale Drawings	Complete scale drawings given various information. (CC 7.G.A.1; TEKS 7.b.5.C; VA SOL 7.4)	CC MP 3, 4, 5, and 7
		4 – Using Scale Drawings to Find Area and Perimeter	Use a scale drawing to find area and perimeter. (CC 7.G.A.1; TEKS 7.b.5.C, 7.b.9; VA SOL 7.4)	CC MP 2, 3, 4, and 5
		5 – Using Scale Drawings to Find Volume and Surface Area	Solve complex real-world problems involving scale drawings and volume and surface area. (CC 7.G.A.1; TEKS 7.b.5.A and C; VA SOL 7.4)	CC MP 1, 3, 4, 5, and 6
	Scale Drawings Assessment			
	Cycle 2 – Defining and Drawing Shapes	1 – Identifying 2-D Shapes	Identify and draw a polygon by sight or by given characteristics. (CC 5.G.B.4; TEKS 5.b.5; VA SOL 5.12b, 5.13a, 6.13)	CC MP 3, 4, and 6
		2 – 2-D Figures Within 3-D Figures	Describe 2-D figures that result from slicing 3-D figures. (CC 7.G.A.3; TEKS G.c.10.A; VA SOL 8.7CF)	CC MP 4 and 5
		3– Constructing Quadrilaterals	Use protractors and rulers to construct quadrilaterals when given characteristics. (CC 7.G.A.2; TEKS G.c.5.B; VA SOL G.4)	CC MP 3, 4, 5, and 6
		4 – Constructing Triangles 1	Construct various triangles when given side measures. (CC 7.G.A.2; TEKS G.c.5.B; VA SOL G.4)	CC MP 4, 5, 6, and 7
		5 – Constructing Triangles 2	Construct various triangles when given angle measures. (CC 7.G.A.2; TEKS G.c.5.B; VA SOL G.4)	CC MP 1, 4, 5, 6
Geometry and Shapes Assessment				

Cycle 3 – Performance Task	Geometry Performance Task (Bathroom Remodel)	Three-day cycle in which students will use their geometric knowledge to date to complete a long-term activity with their teams and individually. (CC 7.G.B.6; TEKS 7.b.5, 7.b.9; VA SOL 6.10c and d, 7.5)	CC MP 1, 3, 4, 5, 6, and 7
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		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 9 – Circle and Angle Geometry	Cycle 1 – Circle Geometry	1 – Pi and the Parts of Circles	Learn vocabulary associated with circles, and figure out the relationship between the circumference and diameter of all circles. (CC 7.G.B.4; TEKS 7.b.5.B, 7.b.8.C; VA SOL 5.9, 6.10a)	CC MP 3, 4, 5, and 6
		2 – Circumference	Given an image and measures, find the circumference of circles. (CC 7.G.B.4; TEKS 7.b.9.B; VA SOL 6.10b)	CC MP 2, 4, 5, and 6
		3 – Area of Circles	Given an image and measures, find the area of circles. (CC 7.G.B.4; TEKS 7.b.8.C, 7.b.9.B; VA SOL 6.10b)	CC MP 1, 2, 4, 5, and 6
		4 – Problem Solving with Circles	Solve complex real-world problems related to finding the area and circumference of a circle. (CC 7.G.B.4; TEKS 7.b.9.B; VA SOL 6.10b and c)	CC MP 1, 2, 4, and 5
	Circle Geometry Assessment			
	Cycle 2 – Angle Geometry	1 – Identifying Types of Angles	Identify types of angles by size and relation to other angles, and construct angles. (CC 7.G.A.2, B.5; TEKS 4.b.6.C, 7.D; VA SOL 5.12)	CC MP 1, 3, 4, and 6
		2 – Complementary and Supplementary Angles	Solve problems involving complementary and supplementary angles. (CC 7.G.B.5; TEKS 7.b.11.C; VA SOL 8.6, 8.6CF)	CC MP 3, 4, 5, and 6
		3 – Adjacent and Vertical Angles	Solve problems involving adjacent and vertical angles. (CC 7.G.B.5; TEKS 7.b.11.C; VA SOL 8.6, 8.6CF)	CC MP 3, 4, 5, and 6
		4 – Problem Solving with Angles	Solve complex problems with one or more missing angles and real-world problems involving angles. (CC 7.G.B.5; TEKS 7.b.11.C; VA SOL 8.6, 8.6CF)	CC MP 1, 3, 4, 5, and 6
	Circle and Angle Geometry Assessment			

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 10 – Volume and Surface Area	Cycle 1 – Volume	1 – Volume of Prisms	Find the volume of various prisms given images and/or data. (CC 7.G.B.6; TEKS 7.b.9.A; VA SOL 7.5)	CC MP 2, 3, 4, 5, and 6
		2 – Volume of Pyramids	Find the volume of various pyramids given images and/or data. (CC 7.G.B.6; TEKS 7.b.8.A-B, 9.A; VA SOL 7.5)	CC MP 2, 3, 4, and 5
		3 – Volume of Cones and Cylinders	Find the volume of cones and cylinders given images and/or data. (CC 7.G.B.6; TEKS 8.b.6.A and B, 8.b.7.A; VA SOL 7.5, 8.7a)	CC MP 2, 3, 4, 5, and 6
		4 – Problem Solving with Volume	Solve complex, real-world problems related to finding volume of 3-D shapes. (CC 7.G.B.6; TEKS 7.b.9.A, 8.b.6.A and B, 8.b.7.A; VA SOL 7.5, 8.7a)	CC MP 1, 2, 3, 4, and 5
	Volume Assessment			

	Cycle 2 – Surface Area	1 – Surface Area of Prisms	Find the surface area of various prisms given images and/or data. (CC 7.G.B.6; TEKS 7.b.9.D; VA SOL 7.5)	CC MP 2, 3, 4, and 5
		2 – Surface Area of Pyramids	Find the surface area of various pyramids given images and/or data. (CC 7.G.B.6; TEKS 7.b.9.D; VA SOL 8.7)	CC MP 2, 3, 4, 5, and 6
		3 – Surface Area of Cones and Cylinders	Find the surface area of cones and cylinders given images and/or data. (CC 7.G.B.6; TEKS 8.b.7.B; VA SOL 7.5, 8.7)	CC MP 2, 3, 4, and 5
		4 – Problem Solving with Surface Area	Solve complex real-world problems related to finding the surface area of simple and complex 3-D shapes. (CC 7.G.B.6; TEKS 7.b.9.D, 8.b.7.B; VA SOL 7.5, 8.7)	CC MP 1, 2, 4, 5, and 6
	Volume and Surface Area Assessment			

Statistics and Probability

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 11 - Probability	Cycle 1 – Expressing Probability	1 – Understanding Probability	Write the probability of an event as a fraction. (CC 7.SP.C.5 and 6; TEKS 7.b.6.D; VA SOL 4.13, 5.14)	CC MP 3, 4, and 6
		2 – Decimal and Percent Probability	Write the probability of a situation as a decimal and a percent. (CC 7.SP.C.5 and 6; TEKS 7.b.6.D and E; VA SOL 4.13, 5.14)	CC MP 1, 3, 4, and 6
		3 – Describing Probability	Describe the probability of an event in words. (CC 7.SP.C.5 and 6; TEKS 7.b.6.D; VA SOL 4.13, 5.14)	CC MP 1, 2, 3, 4, and 6
	Expressing Probability Assessment			
	Cycle 2 – Probability Models	1 – Probability of Independent Compound Events	Determine the probability of independent compound events. (CC 7.SP.C.8a and b; TEKS 7.b.6.A–B, D; VA SOL 6.16, 7.10)	CC MP 3, 4, 5, and 6
		2 – Uniform Experimental Probability	Compare the experimental probability to the theoretical probability of uniform events. (CC 7.SP.C.6 and 7a; TEKS 7.b.6.C and D; VA SOL 6.16, 7.9)	CC MP 3, 4, 5, and 6
		3 – Nonuniform Experimental Probability	Find the experimental probability of nonuniform events. (CC 7.SP.C.6 and 7a; TEKS 7.b.6.C and D; VA SOL 6.16, 7.9)	CC MP 1, 3, 4, 5, and 6
		4 – Independent and Dependent Events	Identify independent and dependent events, and find their probabilities. (CC 7.SP.C.8; TEKS 7.b.6; VA SOL 6.16, 8.12)	CC MP 3, 4, and 5
	Probability Assessment			
	Cycle 3 – Performance Task	Probability Performance Task (Consumer Contest)	A three-day cycle in which students will design probability experiments, calculate theoretical probabilities, and find experimental probabilities. (CC.7.SP.C.5-8; TEKS 7.b.6; VA SOL 6.16, 7.9, and 7.10)	CC MP 1, 2, 3, 4, 5, and 6

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 12 – Random Sampling	Cycle 1 – Understanding Random Sampling	1 – Understanding Random Sampling	Answer the question, “Why do we use random sampling?” (CC 7.SP.A.1; TEKS 7.b.6.F; VA SOL AFDA.8a, b, d, and e)	CC MP 1, 3, 4, 5, and 6
		2 – Characteristics of Random Sampling	Identify the characteristics of random samples. (CC 7.SP.A.1; TEKS 7.b.6.F; VA SOL AFDA.8)	CC MP 3, 4, 5, and 6
		3 – Good vs. Bad Random Samples	Experiment with designing random samples, and identify when samples are good or bad. (CC 7.SP.A.1; TEKS 7.b.6.F; VA SOL AFDA.8)	CC MP 3, 4, and 5
		Understanding Random Sampling Assessment		
	Cycle 2 – Inferring from a Random Samples	1 – Analyzing a Random Sample	Given the results of a random sample, analyze them and draw conclusions. (CC 7.SP.A.2; TEKS 7.b.6.F; VA SOL AFDA.8)	CC MP 2, 3, 4, and 5
		2 – Creating a Random Sample	Create a random sample for given statistical questions. (CC 7.SP.A.2; TEKS 7.b.6.F; VA SOL AFDA.8)	CC MP 3, 4, and 6
		3 – Conducting a Survey of a Random Sample	Conduct a random sample for given statistical questions, and analyze the results. (CC 7.SP.A.2; TEKS 7.b.6.F; VA SOL AFDA.8)	CC MP 1, 2, 3, 4, 5, and 6
		Random Sampling Assessment		

		Lesson	Main Math Concept(s)	Common Core Standard(s) of Mathematical Practice
Unit 13 – Comparing Data	Cycle 1 – Data Distributions	1 – Read and Interpret a Numerical Data Display	Given various numerical data displays, answer questions and make predictions. (CC 6.SP.B.5; TEKS 6.b.13.A; VA SOL 6.14c)	CC MP 3, 4, 5, and 6
		2 – Compare and Contrast Number Data	Compare the number data from two related measures, answer questions, and make predictions. (CC 7.SP.B.3; TEKS 7.b.6.H, 7.b.12.A; VA SOL A.9)	CC MP 3 and 6
		3 – Compare and Contrast Graphs	Compare graphs for the same or similar data sets, and draw conclusions. (CC 7.SP.B.3; TEKS 7.b.12.A; VA SOL A.10)	CC MP 3, 4, and 6
		Data Distributions Assessment		
	Cycle 2 – Measures of Center and Variability	1 – Find Measures of Center and Variability	Given a data set, find the measures of center and variability. (CC 7.SP.B.4; TEKS 6.b.12.B and C; VA SOL 5.16, 6.15)	CC MP 3 and 6
		2 – Compare and Contrast Measures of Center	Compute and compare the measures of center for two data sets or displays. (CC 7.SP.B.4; TEKS 7.b.12.A; VA SOL 6.15)	CC MP 3 and 6
		3 – Compare and Contrast Measures of Variability	Compute and compare the measures of variability for two data sets or displays. (CC 7.SP.B.4; TEKS 7.b.12.A; VA SOL 5.16, 6.15, A.9)	CC MP 3 and 6
		4 – Problem Solving with Data Distributions	Solve complex real-world problems about numerical data displays, measures of center, and measures of variability. (CC 7.SP.B.3 and 4; TEKS 7.b.12.A-C; VA SOL 6.15, A.9, A.10)	CC MP 1, 3, 4, and 6
		Comparing Data Assessment		