7th Grade Curriculum Map 2023-2024

Standards for Mathematical Practice:	Literacy Skills for Mathematical Proficiency
• **MP1:** Make sense of problems and persevere in solving them. • **MP2:** Reason abstractly and quantitatively. • **MP3:** Construct viable arguments and critique the reasoning of others. • **MP4:** Model with mathematics. • **MP5:** Use appropriate tools strategically. • **MP6:** Attend to precision. • **MP7:** Look for and make use of structure. • **MP8:** Look for and express regularity in repeated reasoning.	• **MLS1:** Use multiple reading strategies. • **MLS2:** Understand and use correct mathematical vocabulary. • **MLS3:** Discuss and articulate mathematical ideas. • **MLS4:** Write mathematical arguments.

TCAP
ASSESSMENT BLUEPRINT
Mathematics
Grade 7

This blueprint describes the content and structure of an assessment and defines the ideal percentage of operational test items by reporting category for the Tennessee Comprehensive Assessment Program (TCAP).

IDEAL PERCENTAGE OF ITEMS* | REPORTING CATEGORIES AND STANDARDS

15-20% | **Number Relationships**
7.NS.A | The Number System

31-36% | **Expressions and Equations**
7.EE.A | Expressions and Equations
7.EE.B | Expressions and Equations

13-16% | **Proportional Reasoning**
7.RP.A | Ratios and Proportional Relationships

27-32% | **Geometry and Data**
7.G.A | Geometry
7.G.B | Geometry
7.SP.A | Statistics and Probability
7.SP.B | Statistics and Probability
7.SP.C | Statistics and Probability
7.SP.D | Statistics and Probability

53-64 Total Items (including embedded field test items)

ACT Standards

A 201. Exhibit knowledge of basic expressions (e.g., identify an expression for a total as b + g)	A 202. Solve equations in the form x + a = b, where a and b are whole numbers or decimals	A 402. Add and subtract simple algebraic expressions	A 403. Solve routine first-degree equations	A 405. Match simple inequalities with their graphs on the number line (e.g., $x \geq -35$)	A 601. Manipulate expressions and equations
N 202. Recognize equivalent fractions and fractions in lowest terms	N 203. Locate positive rational numbers (expressed as whole numbers, fractions, decimals, and mixed numbers) on the number line	N 303. Locate rational numbers on the number line	N 603. Apply number properties involving positive/negative numbers	N 702. Apply properties of rational numbers and the rational number system	A 602. Solve linear inequalities when the method involves reversing the inequality sign
G 406. Locate points in the coordinate plane	G 507. Compute the area and circumference of circles after identifying necessary information	G 703. Use scale factors to determine the magnitude of a size change	G 201. Estimate the length of a line segment based on other lengths in a geometric figure	G 202. Calculate the length of a line segment based on the lengths of other line segments that go in the same direction (e.g., overlapping line segments and parallel sides of polygons with only right angles)	G 402. Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°)
AF 403. Relate a graph to a situation described in terms of a starting value and an additional amount per unit (e.g., unit cost, weekly growth)	AF 301. Solve routine one-step arithmetic problems using positive rational numbers, such as singlestep percent	AF 401. Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and estimating by using a given average value in place of actual values	AF 501. Solve multi step arithmetic problems that involve planning or converting common derived units of measure (e.g., feet per second to miles per hour)	AF 601. Solve word problems containing several rates, proportions, or percentages	AF 201. Solve problems in one or two steps using whole numbers and using decimals in the context of money
AF 301. Solve routine one-step arithmetic problems using positive rational numbers, such as singlestep percent	AF 302. Solve some routine two step arithmetic problems	A 603. Match linear inequalities with their graphs on the number line	G 501. Use several angle properties to find an unknown angle measure	G 506. Compute the area of triangles and rectangles when one or more additional simple steps are required	G 601. Use relationships involving area, perimeter, and volume of geometric figures to compute another measure (e.g., surface area for a cube of a given volume and simple geometric probability)

WIDA ELD STANDARD 3 Language for Mathematics

ELD: MA.6-8 Explain: **Interpretive:** Language Expectations: Multilingual learners will interpret mathematical explanations by identifying concepts or entities, analyzing possible ways to represent and solve a problem, and evaluating model and rationale for underlying relationships in selected problem-solving approaches.

ELD: MA.6-8 Explain: **Expressive:** Language Expectations: Multilingual learners will construct mathematical explanations that introduce concepts or entities, share solutions with others, describe data and/or problem-solving strategies, and state reasoning used to generate solutions.

Introduce concepts or entities through…
■ Mathematical terms and phrases to describe concept, process, or purpose (this probability model, randomized sampling will provide more valid results)
■ Relating verbs (belong to, are part of, be, have) to define or describe concept

Share solutions with others through…
■ Generalized nouns to add precision to discussion (distributions, probability, frequencies)
■ Language choices to reflect on completed and on-going process (we should have done this, we might be able to, what if we try)
■ First person (I, We) to describe approach; third person to describe approach with neutral stance of authority
■ Observational (notice, it appears, looks like) and comparative language (different from, similar to, the same) to share results (We notice our process was different, but we have the same solution.)
■ Modality (verbs, adverbs, nouns, adjectives) to express opinions, degrees of certainty, or temper disagreement (It's a possibility, We have to do it this way, Maybe we could look at)

Describe data and/or problem-solving strategy through…
■ Abstract, generalized, or multi-meaning noun groups to add precision to mathematical descriptions (randomized variation, proportional relationships, constituents)
■ Visual data displays (tables, tree diagrams, simulations, data charts, manipulatives) to clarify approach and/or solution
■ Connectors to link sentences and longer stretches of text signaling details of time (next, at the same time), causality (therefore, consequently, as a result), clarification (for example, as seen in the model)
■ Passive voice verbs to explain or analyze (The variable is given a value of six.)
■ Timeless present verbs to present generalizable truths (The hypotenuse is opposite the right angle.)

State reasoning used to generate solutions through…
■ Causal connectors to express reasoning (We took these steps to solve problems with the ratios because…)
■ Conditional conjunctions to propose future options (if/so, if/then) and generalized relationships (if/will, if we follow the order of operations, we will show that…)

ELD: MA.6-8 Argue: **Interpretive:** Language Expectations: Multilingual learners will interpret mathematical arguments by comparing conjectures with previously established results, distinguishing commonalities among strategies used, and evaluating relationships between evidence and mathematical facts to create generalizations

ELD: MA.6-8 Argue: **Expressive:** Language Expectations: Multilingual learners will construct mathematical arguments by comparing conjectures with previously established results, distinguishing commonalities among strategies used, and evaluating relationships between evidence and mathematical facts to create generalizations

Create conjecture, using definitions and previously established results through…
■ Conditional conjunctions (if or when) to make and justify conjecture (If I add 4/5 and 3/4, the result will be less than 2 because each fraction is less than a whole number.)
■ Relating verbs (have, belong to, be) to define principles, operational theorems, and properties (for right angled triangles the Pythagorean formula is $a^2 + b^2 = c^2$)
■ Adverbial phrases (qualities, quantities, frequencies) to add precision related to conjecture (For all integers, For every vote candidate A received, candidate B received three votes which means…)

Generalize logic across cases through…
■ Declarative statements to present generalizable processes (The expression 4n-1 can be used to find any value in the pattern.)
■ Verbs to apply mathematical principles (commands) (use, do, apply, divide) across cases (Use the distributive property when there is no common factor.)

Justify conclusions with evidence and mathematical facts through…
■ Conditional structures (if/then, when) to demonstrate conclusions (If it's a proportional relationship then the ratio between the 2 variables is always going to be the same thing.)
■ Technical nouns and noun groups to add precision and details (coordinate plane, one-variable equations, two- and three-dimensional shapes)
■ Models, drawings, graphs to demonstrate principles

Evaluate and critique others' arguments through…
■ Questions (what, how, why, do), requests (could, would) to request information, clarification, procedure (Could you show me how you got that answer? Why did you do…instead of…?)
■ Causal connectors (so, because, therefore) to identify misconceptions (The pattern is multiplying by a factor of 2, so it can't be a linear function.)
■ Negation (don't, doesn't, can't) and obligation modal verbs (have to, must, should, could, might) to engage with others (I don't think you can apply that theorem, I think you have to use this.)

Unit 1: Adding and Subtracting Rational Numbers

Unit 1 Standards:

7.NS.A.1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

   a. Understand p + q as the number located a distance |q| from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real- world contexts.

   b. Understand subtraction of rational numbers as adding the additive inverse, p – q = p + (–q). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

   c. Apply properties of operations as strategies to add and subtract rational numbers.

7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.)

Chapter 1 Pacing: 12 Days (August 10 - August 25)

Chapter Learning Target: Understand Adding and Subtracting Rational Numbers

Chapter Success Criteria

Represent rational numbers on a number line	Explain the rules of adding and subtracting integers using absolute value
Apply addition and subtraction with rational numbers to model real-life problems	Solve problems involving addition and subtraction of rational numbers

Chapter 1 Vocabulary

Integers	Rational Number	Absolute Value	Additive Inverse

Lessons

1.1	Rational Numbers	★ How can you find absolute values and order rational numbers?
1.2	Adding Integers	★ How do you find sums of integers?
1.3	Adding Rational Numbers	★ How do you find sums of rational numbers?
1.4	Subtracting Integers	★ How can you find the difference of integers?
1.5	Subtracting Rational Numbers	★ How do you find differences of rational numbers and find distances between numbers on a number line?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Chapter 2: Multiplying and Dividing Rational Numbers

Chapter 2 Standards:

7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

   a. Understand that multiplication is extended from fractions to all 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.

   b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then –(p/q) = (–p)/q = p/(–q). Interpret quotients of rational numbers by describing real-world contexts.

   c. Apply properties of operations as strategies to multiply and divide rational numbers. d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates or eventually repeats.

7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.)

Chapter 2 Pacing: 12 Days (August 28 - September 14)

Chapter Learning Target: Understand Multiplying and Dividing Rational Numbers

Chapter Success Criteria

Explain the rules for multiplying integers	Explain the rules for dividing integers
Evaluate expressions involving rational numbers	Solve real-life problems involving multiplication and division of rational numbers

Chapter 2 Vocabulary:

Terminating Decimal	Repeating Decimal	Complex Fraction

Lessons:

2.1	Multiplying Integers	★ How do you find products of integers?
2.2	Dividing Integers	★ How do you find quotients of integers?
2.3	Converting Between Fractions and Decimals	★ How can you convert between different forms of rational numbers?
2.4	Multiplying Rational Numbers	★ How do you find products of rational numbers?
2.5	Dividing Rational Numbers	★ How do you find quotients of rational numbers?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Chapter 3: Expressions

Chapter 3 Standards:

7.EE.A.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
7.EE.A.2 Rewrite and connect equivalent expressions in different forms in a contextual problem to provide multiple ways of interpreting the problem and investigating how the quantities in it are related. For example, shoes are on sale at a 25% discount. How is the discounted price P related to the original cost C of the shoes? C – 0.25C = P. In other words, P is 75% of the original cost since C – 0.25C can be written as 0.75C.

Chapter 3 Pacing: 15 Days (September 18 - October 6)
Benchmark Week: September 29 - October 5

Chapter Learning Target: Understand Algebraic Expressions

Chapter Success Criteria

Identify parts of an algebraic expression	Write algebraic expressions
Solve problems using algebraic expressions	Interpret algebraic expressions in real-life problems

Chapter 3 Vocabulary

Like Terms	Simplest Form	Linear Expression	Factoring an Expression

Lessons:

3.1	Algebraic Expressions	★ How can you simplify expressions?
3.2	Adding and Subtracting Linear Expressions	★ How can you find sums and differences of linear expressions?
3.3	The Distributive Property	★ How do you apply the distributive property to generate equivalent expressions?
3.4	Factoring Expressions	★ How do you factor algebraic expressions?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Quarter 1

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 8/7-8/11	**Teacher Workday**	**Procedures and Policies**		**Unit 1: Adding and Subtracting Rational Numbers**	
Week 2 8/14-8/18	**Unit 1: Adding and Subtracting Rational Numbers**				
Week 3 8/21-8/25					
Week 4 8/28-9/1	**Unit 2: Multiplying and Dividing Rational Numbers**				
Week 5 9/4-9/8					
Week 6 9/11-9/15	**Unit 2: Multiplying and Dividing Rational Numbers**				**No School**
Week 7 9/18-9/22	**Unit 3: Expressions**				
Week 8 9/25-9/29					
Week 9 10/2-10/6					

Benchmark #1 - Friday, September 29 - Thursday, October 5

Chapter 4: Equations and Inequalities

Chapter 4 Standards:

7.EE.B.4 Use variables to represent quantities in a real-world and mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
  a. Solve real-world and mathematical 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?
  b. Solve real-world and mathematical problems leading to inequalities of the form $px + q > r$, $px + q < r$, $px + q \geq r$, and $px + q \leq r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality on a number line and interpret it in the context of the problem. For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.

Chapter 4 Pacing: 19 Days (October 17 - November 10)

Chapter Learning Target: Understand Equations and Inequalities

Chapter Success Criteria

Identify key words and phrases to write equations and inequalities	Write word sentences as equations and inequalities
Solve equations and inequalities using properties	Use equations and inequalities to model and solve real-life problems

Chapter Vocabulary

Equivalent Equations	Inequality	Solution of an Inequality	Solution Set	Graph of an Inequality

Lessons:

4.1	Solving Equations Using Addition or Subtraction	★ How do you write and solve equations using addition or subtraction?
4.2	Solving Equations Using Multiplication or Division	★ How do you write and solve equations using multiplication or division?
4.3	Solving Two-Step Equations	★ How do you write and solve two-step equations?
4.4	Writing and Graphing Inequalities	★ How can you write inequalities and represent solutions of inequalities on number lines?
4.5	Solving Inequalities Using Addition or Subtraction	★ How can you write and solve inequalities using addition or subtraction?
4.6	Solving Inequalities Using Multiplication or Division	★ How do you write and solve inequalities using multiplication or division?
4.7	Solving Two-Step Inequalities	★ How do you write and solve two-step inequalities?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Chapter 5: Ratios and Proportions

Chapter 5 Standards:

7.RP.A.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 15 minutes, compute the unit rate as the complex fraction (1/2) / (1/4) miles per hour, equivalently 2 miles per hour.
7.RP.A.2 Recognize and represent proportional relationships between quantities. 　**a.** Decide whether two quantities are in a proportional relationship (e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin). 　**b.** Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. 　**c.** Use the concept of equality to represent proportional relationships with equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn. 　**d.** Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.
7.RP.A.3 Use proportional relationships to solve multi-step ratio and percent problems. Examples: batting averages, recipes, simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error, etc.
7.G.A.1 Solve problems involving scale drawings of congruent and similar geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

Chapter 5 Pacing: 17 Days (November 13 - December 6)

Chapter Learning Target: Understand Equations and Inequalities

Chapter Success Criteria

Identify key words and phrases to write equations and inequalities	Write word sentences as equations and inequalities
Solve equations and inequalities using properties	Use equations and inequalities to model and solve real-life problems

Chapter 5 Vocabulary

Ratio	Value of a Ratio	Equivalent Ratio	Ratio Table	Rate	Unit Rate	Equivalent Rates	Proportion
Cross Products	Proportional	Constant of Proportionality	Scale Drawing	Scale Model	Scale	Scale Factor	

Lessons:

5.1	Ratios and Ratio Tables	★ How do you use ratios of rational numbers, and use ratio tables to represent equivalent ratios
5.2	Rates and Unit Rates	★ How do you find rates involving fractions and use unit rates to solve problems?
5.3	Identifying Proportional Relationships	★ How can you determine whether two quantities are in a proportional relationship?
5.4	Writing and Solving Proportions	★ How can you use proportions to solve ratio problems?
5.5	Graphs of Proportional Relationships	★ How do you represent proportional relationships using graphs and equations?
5.6	Scale Drawings	★ How can you solve problems involving scale drawings?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Chapter 6: Percents

Chapter 6 Standards:

7.RP.A.3 Use proportional relationships to solve multi-step ratio and percent problems. Examples: batting averages, recipes, simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error, etc.

7.EE.B.3 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers presented in any form (whole numbers, fractions, and decimals).
   a. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate.
   b. Assess the reasonableness of answers using mental computation and estimation strategies.

Chapter 6 Pacing: 15 Days (December 7 - January 12) **Benchmark Week (December 14-20)**

Chapter Learning Target: Understand Fractions, Decimals, and Percents

Chapter Success Criteria

Rewrite fractions, decimals, and percents	Compare and order fractions, decimals, and percents
Use the percent proportion or percent equation to find a percent, a part, or a whole	Apply percents to solve real-life problems

Chapter 6 Vocabulary

Percent of Change	Percent of Increase	Percent of Decrease	Percent Error	Discount
Markup	Interest	Principal	Simple Interest	

Lessons:

6.1	Fractions, Decimals, and Percents	★ How can you rewrite fractions, decimals, and percents using different representations?
6.2	The Percent Proportion	★ How do you use the percent proportion to find missing quantities?
6.3	The Percent Equation	★ How do you use the percent equation to find missing quantities?
6.4	Percent of Increase and Decrease	★ How can you find percent of change in quantities?
6.5	Discounts and Markups	★ How do you solve percent problems involving discounts and markups?
6.6	Simple Interest	★ How do you apply the simple interest formula?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Quarter 2

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 10 **10/16 - 10/20**	**Flexible Learning Day**				
Week 11 **10/23-10/27**					
Week 12 **10/30-11/3**		**Chapter 4: Equations and Inequalities**			
Week 13 **11/6-11/10**					
Week 14 **11/13-11/17**					
Week 15 **11/20-11/24**	**Chapter 5: Ratios and Proportions**		**Thanksgiving Break**		
Week 16 **11/27-12/1**					
Week 17 **12/4-12/8**					
Week 18 **12/11-12/15**	**Chapter 6: Percents**				
Week 19 **12/18-12/22**				**Early Dismissal**	**Holiday Break**

Benchmark #2 - Thursday, December 14 - Wednesday, December 20

Chapter 7: Probability and Statistical Measures

Chapter 7 Standards:

7.SP.C.5 Recognize that the probability of a chance event is a number between 0 and 1 and interpret the likelihood of the event occurring.

7.SP.C.6 Calculate theoretical and experimental probability of simple events.
   a. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.
   b. Calculate the theoretical probability of a simple event.
   c. Compare theoretical probabilities to experimental probabilities; explain any possible sources of discrepancy. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.

7.SP.C.7 Develop a probability model and use it to find experimental or theoretical probabilities of events.
   a. Use a uniform probability model, with equal probability assigned to all outcomes, to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
   b. Develop a probability model, including non-uniform models, by observing frequencies in data generated from a chance process. Use the model to estimate the probabilities of events. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?

7.SP.D.8 Summarize a numerical data set in relation to its context.
   a. Give quantitative measures of center (median and/or mean) and variability (range and/or interquartile range), as well as describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
   b. Relate and understand the choice of measures of center (median and/or mean) and variability (range and/or interquartile range) to the shape of the data distribution and the context in which the data were gathered.

Chapter 7 Pacing: 14 Days (January 16 - February 2)

Chapter Learning Target: Understand Probability and Statistical Measures

Chapter Success Criteria

Identify the possible outcomes of a situation	Make predictions using probabilities
Find and interpret the measures of center and the measures of variation for a data set	Choose appropriate measures to describe a data set

Chapter 7 Vocabulary

Experiment	Outcomes	Event	Favorable Outcomes	Probability	Relative Frequency	Experimental Probability	Theoretical Probability	Measures of Center
Mean	Median	Mode	Measure of Variation	Range	Quartiles	First Quartile	Third Quartile	Interquartile Range

Lessons:

7.1	Probability	★ How do I determine that the probability of an event indicates its likelihood?
7.2	Experimental and Theoretical Probability	★ How can I develop probability models using experimental and theoretical probability?
7.3	Measures of Center	★ How do you find and interpret the mean, median, and mode of a data set?
7.4	Measures of Variation	★ How do you find and interpret the range and interquartile range of a data set?
7.5	Choosing Appropriate Measures	★ How can you determine which measures of center and variation best describe a data set?
7.6	Box-and-Whisker Plots	★ How can you display and interpret data in box-and-whisker plots?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Chapter 8: Statistics

Chapter 8 Standards

7.SP.A.1 Explore how statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
7.SP.A.2 Collect and use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.
7.SP.B.3 Informally compare the measures of center (mean, median, mode) of two numerical data distributions with similar variabilities. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team; on a dot plot or box plot, the separation between the two distributions of heights is noticeable.
7.SP.B.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a 7th grade science book are generally longer than the words in a chapter of a 4th grade science book.

Chapter 8 Pacing: 9 Days (February 5 - February 15)

Chapter Learning Target: Understand Statistics

Chapter Success Criteria

Determine the validity of a conclusion	Explain variability in samples of a population
Solve a problem using statistics	Compare populations

Chapter 8 Vocabulary

Population	Sample	Unbiased Sample	Biased Sample

Lessons

8.1	Samples and Populations	★ How do you explain how to use random samples to make conclusions about a population?
8.2	Using Random Samples to Describe Populations	★ How can you determine variability in samples of a population?
8.3	Comparing Populations	★ How can you compare populations using measures of center?
8.4	Using Random Samples to Compare Populations	★ How can you use random samples to compare populations?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Chapter 9: Geometric Shapes and Angles

Chapter 9 Standards:

7.G.A.2 Draw triangles with given conditions: three angle measures or three side measures. Notice when the conditions determine a unique triangle, more than one triangle, or no triangle.
7.G.B.3 Know the formulas for the area and circumference of a circle and use them to solve problems. Explore the relationships between the radius, the circumference, and the area of a circle, and the number π.
7.G.B.4 Know and use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
7.G.B.5 Solve real-world and mathematical problems involving area of twodimensional figures composed of triangles, quadrilaterals, and polygons, and volume and surface area of three-dimensional objects composed of cubes and right prisms.

Chapter 9 Pacing: 14 Days (February 20 - March 8)

Chapter Learning Target: Understand Geometry

Chapter Success Criteria

Explain how to find the circumference of a circle	Find the areas of circles and composite figures
Solve problems involving angle measures	Construct a polygon

Chapter 9 Vocabulary

Circle	Center	Radius	Diameter	Circumference	Pi
Semicircle	Composite Figure	Adjacent Angles	Complementary Angles	Supplementary Angles	Vertical Angles

Lessons:

9.1	Circles and Circumference	★ How do you find the circumference of a circle?
9.2	Areas of Circles	★ How do you find the area of a circle?
9.3	Perimeters and Areas of Composite Figures	★ How can you find the perimeters and areas of composite figures?
9.4	Constructing Polygons	★ How can you construct a polygon with given measures?
9.5	Finding Unknown Angle Measures	★ How do you use facts about angle relationships to find unknown angle measures?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Unit 10: Surface Area and Volume

Unit 10 Standards:

7.G.B.3 Know the formulas for the area and circumference of a circle and use them to solve problems. Explore the relationships between the radius, the circumference, and the area of a circle, and the number π.
7.G.B.5 Solve real-world and mathematical problems involving area of twodimensional figures composed of triangles, quadrilaterals, and polygons, and volume and surface area of three-dimensional objects composed of cubes and right prisms.

Chapter 10 Pacing: 13 Days (March 11 - April 5)   <mark>**Benchmark Week: March 8 - March 14**</mark>

Chapter Learning Target: Understand Surface Area and Volume

Chapter Success Criteria

Describe the surface area and volume of different shapes	Use formulas to find surface areas and volumes of solids
SOlve real=life problems involving surface area and volume	Describe cross sections of solids

Chapter 10 Vocabulary

Lateral Surface Area	Regular Pyramid	Slant Height	Cross Section

Lessons

10.1	Surface Area of Prisms	★ How can you find the surface area of a prism?
10.3	Surface Areas of Pyramids	★ How can you find the surface area of a pyramid?
10.4	Volumes of Prisms	★ How do you find the volume of a prism?
10.5	Volumes of Pyramids	★ How do you find the volume of a pyramid?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

Quarter 3

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 20 1/8-1/12	Chapter 6: Percents (cont)				
Week 21 1/15-1/19	Martin Luther King Jr. Day	Chapter 7: Probability and Statistical Measures			
Week 22 1/22-1/26					
Week 23 1/29-2/2					
Week 24 2/5-2/9	Chapter 8: Statistics				
Week 25 2/12-2/16					Flexible Learning Day
Week 26 2/19-2/23	Parent Conferences	Chapter 9: Geometric Shapes and Angles			
Week 27 2/26-3/1					
Week 28 3/4-3/8					
Week 29 3/11-3/15	Unit 10: Surface Area and Volume				

Benchmark #3 - Friday, March 8 - Thursday, March 14

Quarter 4

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 30 **3/25-3/29**				**Flexible Learning Day**	**Good Friday**
Week 31 **4/1-4/5**		**Unit 10: Surface Area and Volume (Cont)**			
Week 32 **4/8-4/12**	**TN READY REVIEW**				
Week 33 **4/15-4/19**	TCAP Testing				
Week 34 **4/22-4/26**	Math Fair!				
Week 35 **4/29-5/3**					
Week 36 **5/6-5/10**					
Week 37 **5/13-5/17**					
Week 38 **5/20-5/24**					