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## 6th Grade Curriculum Map 2023-2024

Standards for Mathematical Practice:	Literacy Skills for Mathematical Proficiency
<ul style="list-style-type: none"> <li>• <b>MP1:</b> Make sense of problems and persevere in solving them.</li> <li>• <b>MP2:</b> Reason abstractly and quantitatively.</li> <li>• <b>MP3:</b> Construct viable arguments and critique the reasoning of others.</li> <li>• <b>MP4:</b> Model with mathematics.</li> <li>• <b>MP5:</b> Use appropriate tools strategically.</li> <li>• <b>MP6:</b> Attend to precision.</li> <li>• <b>MP7:</b> Look for and make use of structure.</li> <li>• <b>MP8:</b> Look for and express regularity in repeated reasoning.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>MLS1:</b> Use multiple reading strategies.</li> <li>• <b>MLS2:</b> Understand and use correct mathematical vocabulary.</li> <li>• <b>MLS3:</b> Discuss and articulate mathematical ideas.</li> <li>• <b>MLS4:</b> Write mathematical arguments.</li> </ul>

## TCAP ASSESSMENT BLUEPRINT Math Grade 6

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
<b>27-37%</b>	<b>Number Relationships</b> 6.NS.A      The Number System 6.NS.B      The Number System 6.NS.C      The Number System
<b>27-33%</b>	<b>Expressions and Equations</b> 6.EE.A      Expressions and Equations 6.EE.B      Expressions and Equations 6.EE.C      Expressions and Equations
<b>10-13%</b>	<b>Ratios and Rates</b> 6.RP.A      Ratios and Proportional Relationships
<b>13-20%</b>	<b>Geometry and Data</b> 6.G.A      Geometry 6.SP.A      Statistics and Probability 6.SP.B      Statistics and Probability

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



## ACT Standards

N 201. Perform an operation computation with whole numbers and decimals.	N 401. Exhibit knowledge of elementary number concepts such as rounding, the ordering of decimals, pattern identification, primes, and greatest common factor.	N 603 Apply number properties involving positive/negative numbers.	N 203 Locate positive rational numbers (expressed as whole numbers, fractions, decimals, and mixed numbers) on a number line.	N 702. Apply properties of rational numbers and the rational number system.	N.404 Understand absolute value in terms of distance.
G 506. Compute the area of triangles and rectangles when one or more additional simple steps are required	G 703. Use scale factors to determine the magnitude of a size change	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	G 405. Use geometric formulas when all necessary information is given	G 406. Locate points in the coordinate plane	G 203. Perform common conversions of money and of length, weight, mass, and time within a measurement system (e.g., dollars to dimes, inches to feet, and hours to minutes)
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 403. Relate a graph to a situation describe in terms of a starting value and an additional amount per unit (e.g., unit cost, weekly growth).	AF 704. Analyze and draw conclusions based on information from graphs in the coordinate plane	AF 502. Build functions and write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)	AF 601. Solve word problems containing several rates, proportions, or percentages	N 405 Find the distance in the coordinate plane between two points with the same x-coordinate or y- coordinate
A 303. Combine like terms (e.g., $2x + 5x$ ).	A 401. Evaluate algebraic expressions by substituting integers for unknown quantities.	A 601. Manipulate expressions and equations	A 602. Solve linear inequalities when the method involves reversing the inequality sign	A 701. Solve simple absolute value inequalities	A 603. Match linear inequalities with their graphs on the number line
S 701. Distinguish between mean, median, and mode for a list of numbers	S 401. Calculate the missing data value given the average and all data values but one	S 501. Calculate the average given the frequency counts of all the data values	S 702. Analyze and draw conclusions based on information from tables and charts, including two way frequency tables	S 402. Translate from one representation of data to another (e.g., a bar graph to a circle graph)	A 302. Solve one-step equations to get integer or decimal answers.



## Chapter 1: Numerical Expressions and Factors

### Chapter 1 Standards:

**6.EE.A.1** Write and evaluate numerical expressions involving whole-number exponents.

**6.NS.B.4** Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express  $36 + 8$  as  $4(9 + 2)$ .

**Chapter 1 Pacing:** 12 Days (August 8 - August 23)

**Chapter Learning Target:** Understand Factors

### Chapter Success Criteria

Identify factors of a number	Solve a problem using factors
Explain order of operations	Model different types of multiples of numbers



## Chapter Vocabulary:

Power	Base	Exponent	Perfect Square	Numerical Expression	Evaluate	Order of Operations	
Factor Pair	Prime Factorization	Factor Tree	Venn Diagram	Common Factors	Greatest Common Factor	Common Multiples	Least Common Multiple

## Lessons:

1.1	Powers and Exponents	★ How can you write and evaluate expressions involving exponents?
1.2	Order of Operations	★ How can you write and evaluate numerical expressions using the order of operations?
1.3	Prime Factorization	★ How can you write a number as a product of prime factors and represent the product using exponents?
1.4	Greatest Common Factor	★ How can you find the greatest common factor of two numbers?
1.5	Least Common Multiple	★ How can you find the least common multiple of two numbers?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	



## Chapter 2: Multiplying Fractions

### Chapter 2 Standards:

**6.NS.A.1** Interpret and compute quotients of fractions, and solve real-world and mathematical problems involving division of fractions by fractions (e.g., connecting visual fraction models and equations to represent the problem is suggested). For example, create a story context for  $(\frac{2}{3}) \div (\frac{3}{4})$  and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that  $(\frac{2}{3}) \div (\frac{3}{4}) = \frac{8}{9}$  because  $\frac{3}{4}$  times  $\frac{8}{9}$  is  $\frac{2}{3}$  ( $(\frac{a}{b}) \div (\frac{c}{d}) = \frac{ad}{bc}$ ). Further example: How much chocolate will each person get if 3 people share  $\frac{1}{2}$  lb. of chocolate equally? How wide is a rectangular strip of land with length  $\frac{3}{4}$  mi and area  $\frac{1}{2}$  square mi?

**6.NS.B.2** Fluently divide multi-digit numbers using a standard algorithm.

**6.NS.B.3** Fluently add, subtract, multiply, and divide multi-digit decimals using a standard algorithm and making connections to previous conceptual work with each operation.

**Chapter 2 Pacing:** 14 Days (August 24 - September 13)

**Chapter Learning Target:** Understand Fractions and Decimals

### Chapter Success Criteria

Identify a fraction and a decimal	Evaluate Expressions involving fractions and decimals using the order of operations
Add, subtract, multiply, and divide fractions and decimals	Solve a problem using fractions and decimals



### Chapter Vocabulary:

Reciprocals	Multiplicative Inverse
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### Lessons:

2.1	Multiplying Fractions	★ How can you find products involving fractions and mixed numbers?
2.2	Dividing Fractions	★ How can you compute quotients of fractions, and solve problems involving division by fractions?
2.3	Dividing Mixed Numbers	★ How can you compute quotients with mixed numbers, and solve problems involving division with mixed numbers?
2.4	Adding and Subtracting Decimals	★ How can you add and subtract decimals and solve problems involving addition and subtraction of decimals?
2.5	Multiplying Decimals	★ How can you multiply and solve problems involving multiplication of decimals?
2.6	Dividing Whole Numbers	★ How can you divide whole numbers and solve problems involving division of whole numbers?
2.7	Dividing Decimals	★ How can you divide decimals and solve problems involving division of decimals?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	



## Chapter 3: Ratios and Rates

### Chapter 3 Standards

**6.RP.A.1** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. Make a distinction between ratios and fractions. For example, the ratio of wings to beaks in a bird house at the zoo was 2:1, because for every 2 wings there was 1 beak. Another example could be for every vote candidate A received, candidate C received nearly three votes.

**6.RP.A.2** Understand the concept of a unit rate  $a/b$  associated with a ratio  $a:b$  with  $b \neq 0$ . Use rate language in the context of a ratio relationship. For example, this recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is  $3/4$  cup of flour for each cup of sugar. Also, we paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger. (Expectations for unit rates in 6th grade are limited to non-complex fractions)

**6.RP.A.3** Use ratio and rate reasoning to solve real-world and mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations).

- a. Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
- b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if a runner ran 10 miles in 90 minutes, running at that speed, how long will it take him to run 6 miles? How fast is he running in miles per hour?
- d. Use ratio reasoning to convert customary and metric measurement units (within the same system); manipulate and transform units appropriately when multiplying or dividing quantities.

**Chapter 3 Pacing:** 20 Days (September 14 - October 19) **Benchmark Week:** September 29 - October 5

**Chapter Learning Target:** Understand Ratios

### Chapter Success Criteria

Write and interpret ratios	Name ratios equivalent to a given ratio
Solve a problem using ratios	Convert units of measure using ratio reasoning



### Chapter Vocabulary:

ratio	Value of a Ratio	Equivalent Ratios	Ratio Table	Rate	Unit Rate
Equivalent Rates	U.S. Customary System	Metric System	Conversion Factor	Unit Analysis	

### Lessons:

3.1	Ratios	★ How can you understand the concepts of ratios and equivalent ratios?
3.2	Using Tape Diagrams	★ How can you use tape diagrams to model and solve ratio problems?
3.3	Using Ratio Tables	★ How can you use ratio tables to represent equivalent ratios and solve ratio problems?
3.4	Graphing Ratio Relationships	★ How can you represent ratio relationships in a coordinate plane?
3.5	Rates and Unit Rates	★ How can you use the concept of a unit rate to solve rate problems?
3.6	Converting Measures	★ How can you use ratio reasoning to convert units of measure?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	





## Chapter 4: Percents

### Chapter 4 Standards:

**6.RP.A.3** Use ratio and rate reasoning to solve real-world and mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations).

c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

**6.NS.C.7** Understand ordering and absolute value of rational numbers

a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret  $-3 > -7$  as a statement that  $-3$  is located to the right of  $-7$  on a number line oriented from left to right

b. Write, interpret, and explain statements of order for rational numbers in real world contexts. For example, write  $-3^{\circ}C > -7^{\circ}C$  to express the fact that  $-3^{\circ}C$  is warmer than  $-7^{\circ}C$ .

**Chapter 4 Pacing:** 12 Days (October 20 - November 3)

**Chapter Learning Target:** Understand Percents

### Chapter Success Criteria

Write fractions and decimals as percents	Write percents as fractions and as decimals
Order fractions, decimals, and percents	Solve percent problems



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## Chapter Vocabulary

Percent

## Lessons:

4.1	Percents and Fractions	★ How can you write percent as fractions and fractions as percents?
4.2	Percents and Decimals	★ How can you write percents as decimals and decimals as percents?
4.3	Comparing and Ordering Fractions, Decimals, and Percents	★ How can you compare and order fractions, decimals, and percents?
4.4	Solving Percent Problems	★ How can you find a percent of a quantity and solve percent problems?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	



## Chapter 5: Algebraic Expressions and Properties

### Chapter 5 Standards:

**6.NS.B.4** Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express  $36 + 8$  as  $4(9 + 2)$ .

**6.EE.A.2** Write, read, and evaluate expressions in which variables stand for numbers

a. Write expressions that record operations with numbers and with variables. For example, express the calculation "Subtract  $y$  from 5" as  $5 - y$ .

b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression  $2(8 + 7)$  as a product of two factors; view  $(8 + 7)$  as both a single entity and a sum of two terms.

c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

**6.EE.A.3** Apply the properties of operations (including, but not limited to, commutative, associative, and distributive properties) to generate equivalent expressions. (The distributive property of multiplication over addition is prominent here. Negative coefficients are not an expectation at this grade level.) For example, apply the distributive property to the expression  $3(2 + x)$  to produce the equivalent expression  $6 + 3x$ ; apply the distributive property to the expression  $24x + 18y$  to produce the equivalent expression  $6(4x + 3y)$ ; apply properties of operations to  $y + y + y$  to produce the equivalent expression  $3y$

**6.EE.A.4** Identify when expressions are equivalent (i.e., when the expressions name the same number regardless of which value is substituted into them). For example, the expression  $5b + 3b$  is equivalent to  $(5 + 3)b$ , which is equivalent to  $8b$ .

**Chapter 5 Pacing:** 14 Days (November 6 - November 27)

**Chapter Learning Target:** Understand Algebraic Expressions

### Chapter Success Criteria

Identify Parts of an Algebraic Expression	Write Algebraic Expressions
Solve a Problem Using Algebraic Expressions	Interpret Algebraic Expressions in Real-Life Problems



## Chapter 5 Vocabulary

Algebraic Expression	Variable	Term	Coefficient	Constant	Equivalent Expressions	Like Terms	Factoring an Expression
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### Lessons:

5.1	Algebraic Expressions	★ How can you evaluate algebraic expressions given values of their variables?
5.2	Writing Expressions	★ How can you write and solve problems involving algebraic expressions?
5.3	Properties of Addition and Multiplication	★ How can you identify equivalent expressions and apply properties to generate equivalent expressions?
5.4	The Distributive Property	★ How can you apply the distributive property to generate equivalent expressions?
5.5	Factoring Expressions	★ How can you factor numerical and algebraic expressions?
	Connect Concepts	
	Chapter Review & Test	
	Cumulative Practice	



## Chapter 6: Equations

### Chapter 6 Standards

**6.EE.B.5** Understand that a solution to an equation or inequality is the value(s) that makes that statement true. Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

**6.EE.B.6** Use variables to represent numbers and write expressions when solving real-world and mathematical problems; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

**6.EE.B.7** Solve real-world and mathematical problems by writing and solving onestep equations of the form  $x + p = q$ ,  $px = q$ ,  $x - p = q$ , and  $x/p = q$  for cases in which  $p$ ,  $q$ , and  $x$  are all nonnegative rational numbers and  $p \neq 0$ . (Complex fractions are not an expectation at this grade level.)

**6.EE.C.9** Use variables to represent two quantities in a real-world problem that change in relationship to one another. For example, Susan is putting money in her savings account by depositing a set amount each week (\$50). Represent her savings account balance with respect to the number of weekly deposits ( $s = 50w$ , illustrating the relationship between balance amount  $s$  and number of weeks  $w$ ).

a. Write an equation in the form of  $y = px$  where  $y$ ,  $p$ , and  $x$  are all non-negative and  $p \neq 0$ , to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable.

b. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

**Chapter 6 Pacing:** 13 Days (November 28 - December 13) **Benchmark Week** (December 8-14)

**Chapter Learning Target:** Understand Equations

### Chapter Success Criteria

Identify key words and phrases	Write word sentences as equations
Solve quotations using properties of equality	Model different types of equations to solve real-life problems



## Chapter 6 Vocabulary

Equation	Solution	Inverse Operations	Equation in Two Variables	Solution of an Equation in Two Variables	Independent Variable	Dependent Variable
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### Lessons:

6.1	Writing Equations in One Variable	★ How can you write equations in one variable and write equations that represent real-life problems?
6.2	Solving Equations Using Addition or Subtraction	★ How can you write and solve equations using addition or subtraction?
6.3	Solving Equations Using Multiplication or Division	★ How can you write and solve equations using multiplication or division?
6.4	Writing Equations in Two Variables	★ How can you write equations in two variables, and analyze the relationship between the two quantities?
	Connecting Concepts	
	Unit Review & Test	
	Cumulative Practice	



## Chapter 7: Area, Surface Area, and Volume

### Chapter 7 Standards:

**6.EE.A.2** Write, read, and evaluate expressions in which variables stand for numbers.

c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

**6.G.A.1** Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; know and apply these techniques in the context of solving real-world and mathematical problems.

**6.G.A.2** Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas  $V = lwh$  and  $V = Bh$  where  $B$  is the area of the base to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

**6.G.A.4** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

**Chapter 7 Pacing:** 15 Days ( December 14 - January 18 )

**Chapter Learning Target:** Understand Measurement

### Chapter Success Criteria

Explain how to find areas of figures	Explain how to find surface areas and volumes of solids
Describe and draw three-dimensional figures	Apply units of measurement to solve real-life problems



## Chapter Vocabulary

Polygon	Composite Figure	Kite	Solid	Polyhedron	Face	Edge
Vertex	Prism	Pyramid	Surface Area	Net	Volume	

## Lessons:

7.1	Areas of Parallelograms	★ How can you find areas and missing dimensions of parallelograms?
7.2	Areas of Triangles	★ How can you find areas and missing dimensions of triangles, and find areas of composite figures?
7.3	Areas of Trapezoids and Kites	★ How can you find areas of trapezoids, kites, and composite figures?
7.4	Three-Dimensional Figures	★ How can you describe and draw three-dimensional figures?
7.5	Surface Areas of Prisms	★ How can you represent prisms using nets, and use nets to find surface areas of prisms?
7.6	Surface Areas of Pyramids	★ How can you represent pyramids using nets and use nets to find surface areas of pyramids?
7.7	Volumes of Rectangular Prisms	★ How can you find volumes and missing dimensions of rectangular prisms?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	





## Chapter 8: Integers, Number Lines, and the Coordinate Plane

### Chapter 8 Standards

**6.NS.C.5** Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real world contexts, explaining the meaning of 0 in each situation as well as describing situations in which opposite quantities can combine to make 0.

**6.NS.C.6** Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

- Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself. For example,  $-(-3) = 3$ , and that 0 is its own opposite.
- Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
- Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

**6.NS.C.7** Understand ordering and absolute value of rational numbers.

- Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret  $-3 > -7$  as a statement that  $-3$  is located to the right of  $-7$  on a number line oriented from left to right.
- Write, interpret, and explain statements of order for rational numbers in real world contexts. For example, write  $-3^{\circ} \text{C} > -7^{\circ} \text{C}$  to express the fact that  $-3^{\circ} \text{C}$  is warmer than  $-7^{\circ} \text{C}$ .
- Understand the absolute value of a rational number as its distance from 0 on the number line and distinguish comparisons of absolute value from statements about order in a real-world context. For example, an account balance of  $-24$  dollars represents a greater debt than an account balance  $-14$  dollars because  $-24$  is located to the left of  $-14$  on the number line.

**6.NS.C.8** Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

**6.EE.B.5** Understand that a solution to an equation or inequality is the value(s) that makes that statement true. Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

**6.EE.B.6** Use variables to represent numbers and write expressions when solving real-world and mathematical problems; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

**6.EE.B.8** Interpret and write an inequality of the form  $x > c$ ,  $x < c$ ,  $x \leq c$ , or  $x \geq c$  which represents a condition or constraint in a real-world or mathematical problem. Recognize that inequalities have infinitely many solutions; represent solutions of inequalities on number line diagrams.

**6.G.A.3** Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side that joins two vertices (vertical or horizontal segments only). Apply these techniques in the context of solving real-world and mathematical problems.

**Chapter 7 Pacing:** Days 21 (January 19 - February 15 )

**Chapter Learning Target:** Understand Integers



### Chapter Success Criteria

Write integers to represent quantities	Describe quantities
Order and compare quantities	Apply integers to model real-life problems

### Chapter Vocabulary

Positive Numbers	Negative Numbers	Opposites	Integers	Rational Number	Absolute Value	Coordinate Plane
Origin	Quadrants	Inequality	Solution of an inequality	Solution Set	Graph of an Inequality	

### Lessons:

8.1	Integers	★ How can you use the concept of negative numbers and positive numbers to describe quantities?
8.2	Comparing and Ordering Integers	★ How can you compare and order integers?
8.3	Rational Numbers	★ How can you compare and order rational numbers?
8.4	Absolute Value	★ How can you explain absolute value?
8.5	The Coordinate Plane	★ How can you plot and reflect ordered pairs in all four quadrants of a coordinate plane?
8.6	Polygons in the Coordinate Plane	★ How can you draw polygons in the coordinate plane and find distances between points in the coordinate plane?
8.7	Writing and Graphing Inequalities	★ How can you write inequalities and represent solutions of inequalities on number lines?
8.8	Solving Inequalities	★ How can you write and solve inequalities?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	



## Chapter 9” Statistical Measures

### Chapter 9 Standards:

**6.SP.A.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.

**6.SP.A.2** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its measures of center (mean, median, mode), measures of variation (range only), and overall shape.

**6.SP.A.3** Recognize that a measure of center (mean, median, mode) for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

**6.SP.B.4** Display a single set of numerical data using dot plots (line plots), box plots, pie charts and stem plots.

**6.SP.B.5** Summarize numerical data sets in relation to their context.

a. Report the number of observations.

b. Describe the nature of the attribute under investigation, including how it was measured and its units of measurement.

c. Give quantitative measures of center (median and/or mean) and variability (range) as well as describing any overall pattern with reference to the context in which the data were gathered.

**Chapter 9 Pacing:** 8 Days ( February 20 - February 29 )

**Chapter Learning Target:** Understand Statistical Measures

### Chapter Success Criteria

Construct a data set	Explain how a data set can be interpreted
Find and interpret the measures of center and range for a data set	Compare the measures of center and range for data sets



## Chapter Vocabulary

Statistics	Statistical Question	Mean	Outlier	Measure of Center	median	Mode	Measure of Variation	Range
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## Lessons:

9.1	Introduction to Statistics	★ How can you identify statistical questions and use data to answer statistical questions?
9.2	Mean	★ How can you find and interpret the mean of a data set?
9.3	Measures of Center and Range	★ How can you find and interpret the median, mode, and range of a data set?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	



## Chapter 10: Data Displays

### Chapter 10 Standards

**6.SP.A.2** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its measures of center (mean, median, mode), measures of variation (range only), and overall shape.

**6.SP.B.4** Display a single set of numerical data using dot plots (line plots), box plots, pie charts and stem plots.

**6.SP.B.5** Summarize numerical data sets in relation to their context

c. Give quantitative measures of center (median and/or mean) and variability (range) as well as describing any overall pattern with reference to the context in which the data were gathered.

d. Relate the choice of measures of center to the shape of the data distribution and the context in which the data were gathered.

**Chapter 9 Pacing:** 14 Days ( March 1 - March 27 ) **Benchmark Week: March 8 - March 14)**

**Chapter Learning Target:** Understand Data Displays

### Chapter Success Criteria

Construct a data display	Interpret data in a data display
Choose the appropriate measures of center to describe a data set	Compare data sets



## Chapter Vocabulary

Stem-and-Leaf Plot	Stem	Leaf	Circle Graph	Frequency Table	Frequency
Histogram	Box-and-Whisker Plot	Five-Number Summary	Quartile	First Quartile	Third Quartile

## Lessons:

10.1	Stem-and-Leaf Plots	★ How can you display and interpret data in stem-and-leaf plots?
10.2	Circle Graphs	★ How can you make and interpret circle graphs?
10.3	Histograms	★ How can you display and interpret data in histograms?
10.4	Shapes of Distributions	★ How can you describe and compare shapes of distributions?
10.5	Choosing Appropriate Measures	★ How can you determine which measure of center best describes a data set?
10.6	Box-and-Whisker Plots	★ How can you display and interpret data i box-and-whisker plots?
	Connecting Concepts	
	Chapter Review & Test	
	Cumulative Practice	

## 2-Week Review

TCAP Testing: April 15 - April 26