Pine Hill Public Schools Curriculum			
Content Area:	**Mathematics**		
Course Title/ Grade Level:	**Math/Grade 6**		
Unit 1:	Ratios and Proportional Relationships	Duration:	34 days
Unit 2:	The Number System	Duration::	52 days
Unit 3:	Expressions and Equations	Duration:	44 days
Unit 4:	Geometry	Duration:	26 days
Unit 5:	Statistics and Probability	Duration:	26 days
Date Created or Revised:	August 2018		
BOE Approval Date:			

	Pine Hill Public Schools Curriculum	
Unit Title Ratios and Proportional Relationships		**Unit #: 1**
Course or Grade Level: Math Grade 6	**Length of Time:** 34 Days	
Pacing	September-October	
Essential Questions	How can you use mathematics to describe change and model real world situations? 　-How do you use equivalent rates in the real world? 　-When is it better to use a fraction, a decimal, or a percent?	
Content	● Factors and multiples ● Ratios ● Rates ● Ratio Tables and Graphing Ratio Tables ● Equivalent Ratios ● Decimals, Fractions, and Percents ● Percents greater than 100 and less than 1 ● Percent of a number	
Skills	● Calculate the GCF and LCM ● Give examples of ratios as fractions ● Use ratios to compare quantities ● Give examples of rates ● Write rates as unit rates ● Use tables to solve problems involving ratios and rates ● Use graphs to represent problems involving ratios and rates ● Find equivalent ratios and rates by using unit rates and equivalent fractions ● Write decimals as fractions or mixed numbers ● Write percents as fractions ● Write percents as decimals ● Write equivalent forms of fractions, decimals, and percents above 100% and below 1% ● Compare and order fractions, decimals, and percents ● Estimate percent of a number ● Model the percent of a number ● Calculate percent of a number ● Solve percent problems to find the whole	
Assessments	● Classwork Performance ● Exit Tickets ● Homework Performance ● Chapter Test 1 & 2	
Interventions / differentiated instruction	● ALEKS ● IXL ● Remediation Lessons ● Address gaps in prior knowledge through warm-ups	
Inter-disciplinary Connections	● Investigate a career as a cosmetics chemist and how they use ratios and rates	
Lesson resources / Activities	● Inquiry Labs ● Problem Solving Investigations ● Chapter Review ● Performance Task ● Reflection Task ● ALEKS	

New Jersey Student Learning Standards for Mathematics

Standard(s) for Mathematical Practice:	Standard(s) for Mathematical Content:
1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	CCSS.MATH.CONTENT.6.RP.A.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."* CCSS.MATH.CONTENT.6.RP.A.2 Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and 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." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*[1] CCSS.MATH.CONTENT.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. CCSS.MATH.CONTENT.6.RP.A.3.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. CCSS.MATH.CONTENT.6.RP.A.3.B Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*

		CCSS.MATH.CONTENT.6.RP.A.3.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. CCSS.MATH.CONTENT.6.RP.A.3.D Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. CCSS.MATH.CONTENT.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)..*	

21ˢᵗ Century Themes						
x	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy

21ˢᵗ Century Skills						
x	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	x	Life and Career Skills		

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.		
Strand: **8.1.8.A.1**	**Content Statement:** Understand and use technology systems.	**Indicator:** Demonstrate knowledge of a real world problem using digital tools.
8.1.8.A.2	Select and use applications effectively and productively.	Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.

Pine Hill Public Schools Curriculum		
Unit Title The Number System		**Unit #: 2**
Course or Grade Level: Math Grade 6		**Length of Time:** 52 Days
Pacing	October-December	

Essential Questions	How can mathematical ideas be represented?
	    How can estimating be helpful?
	    What does it mean to multiply and divide fractions?
	    How are integers and absolute value used in real world situations?	

Content	● Decimal operations ● Fractional products and quotients ● Integers ● The Coordinate Plane ● Absolute value ● Terminating and repeating decimals	
Skills	● Add and subtract decimals ● Estimate the products of decimals and judge the reasonableness of results ● Find products of multi-digit numbers and decimals ● Multiply by powers of 10 ● Find quotients involving multi-digit numbers and decimals ● Estimate fractional products ● Multiply fractions ● Divide fractions ● Use integers to represent real world situations ● Calculate the absolute value of an integer ● Compare and order integers ● Write positive and negative fractions as decimals ● Compare and order rational numbers ● Graph ordered pairs on the coordinate plane ● Find the distance between two points on the coordinate plane	
Assessments	● Classwork Performance ● Exit Tickets ● Homework Performance ● Chapter Test 3,4,&5	
Interventions / differentiated instruction	● ALEKS ● IXL ● Remediation Lessons ● Address gaps in prior knowledge through warm-ups	
Inter-disciplinary Connections	● Investigate a career as a sports equipment designer with a focus on the necessity of calculating with rational numbers in the context of physics ● Investigate a career as a pastry chef with a focus on the links between this career and algebra, chemistry, and food science technology ● Investigate a career as a scientific illustrator with a focus on the links between this career and algebra, biology, and geometry	
Lesson resources / Activities	● Inquiry Labs ● Problem Solving Investigations ● Chapter Review ● Performance Task ● Reflection Task ● ALEKS	

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New Jersey Student Learning Standards for Mathematics

Standard(s) for Mathematical Practice:	**Standard(s) for Mathematical Content:**
1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	CCSS.MATH.CONTENT.6.NS.A.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?.* CCSS.MATH.CONTENT.6.NS.B.2 Fluently divide multi-digit numbers using the standard algorithm. CCSS.MATH.CONTENT.6.NS.B.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. CCSS.MATH.CONTENT.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. CCSS.MATH.CONTENT.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.

CCSS.MATH.CONTENT.6.NS.C.6.A

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, e.g., -(-3) = 3, and that 0 is its own opposite.

CCSS.MATH.CONTENT.6.NS.C.6.B

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.

CCSS.MATH.CONTENT.6.NS.C.6.C

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.

CCSS.MATH.CONTENT.6.NS.C.7

Understand ordering and absolute value of rational numbers.

CCSS.MATH.CONTENT.6.NS.C.7.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.*

CCSS.MATH.CONTENT.6.NS.C.7.B

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

CCSS.MATH.CONTENT.6.NS.C.7.C

Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of -30 dollars, write |-30| = 30 to describe the size of the debt in dollars*.

CCSS.MATH.CONTENT.6.NS.C.7.D

Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars*.

CCSS.MATH.CONTENT.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.

CCSS.MATH.CONTENT.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.

CCSS.MATH.CONTENT.6.RP.A.3.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.

CCSS.MATH.CONTENT.6.RP.A.3.B

Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*

CCSS.MATH.CONTENT.6.RP.A.3.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. CCSS.MATH.CONTENT.6.RP.A.3.D Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.			

21ˢᵗ Century Themes

x	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy

21ˢᵗ Century Skills

x	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	x	Life and Career Skills		

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

Strand: 8.1.8.A.1	Content Statement: Understand and use technology systems.	Indicator: Demonstrate knowledge of a real world problem using digital tools.
8.1.8.A.2	Select and use applications effectively and productively.	Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.

Pine Hill Public Schools **Curriculum**	

Unit Title Expressions and Equations			**Unit #: 3**
Course or Grade Level: Math Grade 6		**Length of Time:** 44 Days	

Pacing	Jan-March
Essential Questions	How can you communicate mathematical ideas effectively? -How is it helpful to write numbers in different ways? -How do you determine of two numbers or expressions are equal? -How are symbols such as <, >, and =, useful?
Content	● Powers and exponents ● Numerical expressions ● Variables ● Properties ● Equations ● Functions ● Inequalities
Skills	● Represent numbers using exponents ● Find the value of an expression using the order of operations ● Evaluate algebraic expressions ● Use models to write expressions ● Write verbal phrases as simple algebraic expressions ● Use properties to simplify expressions ● Model the distributive property ● Apply the distributive property ● Use models to simplify algebraic expressions ● Use properties to simplify expressions ● Solve equations by using mental math ● Solve addition equations with models ● Solve and write addition equations ● Solve subtraction equations using models ● Solve and write subtraction equations ● Solve multiplication equations using models ● Solve and write multiplication equations ● Solve division equations using models ● Solve and write division equations ● Complete function tables for given function rules ● Extend and describe sequences using algebraic expressions ● Construct and analyze different verbal, tabular, graphical, and algebraic representations of functions ● Model inequalities using bar diagrams ● Solve inequalities with mental math ● Write and graph inequalities ● Model and solve one-step addition and subtraction inequalities ● Solve multiplication and division inequalities
Assessments	● Classwork Performance ● Exit Tickets ● Homework Performance ● Chapter Test 6, 7, & 8
Interventions / differentiated instruction	● ALEKS ● IXL ● Remediation Lessons ● Address gaps in prior knowledge through warm-ups
Inter-disciplinary Connections	● Investigate a career as a water slide engineer with a focus on the incorporation of skills from algebra, computer-aided drafting, engineering technology, calculus, and physics ● Investigate a career as a sound engineer with a focus on the incorporation of skills from physics, music, algebra, and electronic technology

	● Investigate a career as a meteorologist with a focus on the incorporation of skills from algebra, calculus, environmental science, and physics
Lesson resources / Activities	● Inquiry Labs ● Problem Solving Investigations ● Chapter Review ● Performance Task ● Reflection Task ● ALEKS

New Jersey Student Learning Standards for Mathematics	
Standard(s) for Mathematical Practice:	**Standard(s) for Mathematical Content:**
1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	CCSS.MATH.CONTENT.6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents. CCSS.MATH.CONTENT.6.EE.A.2 Write, read, and evaluate expressions in which letters stand for numbers. CCSS.MATH.CONTENT.6.EE.A.2.A Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 - y.* CCSS.MATH.CONTENT.6.EE.A.2.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.* CCSS.MATH.CONTENT.6.EE.A.2.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). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length s = 1/2.*

	CCSS.MATH.CONTENT.6.EE.A.3
	Apply the properties of operations to generate equivalent expressions. *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.*
	CCSS.MATH.CONTENT.6.EE.A.4
	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for..*
	CCSS.MATH.CONTENT.6.EE.B.5
	Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
	CCSS.MATH.CONTENT.6.EE.B.6
	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	CCSS.MATH.CONTENT.6.EE.B.7
	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
	CCSS.MATH.CONTENT.6.EE.B.8
	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < $ c have

		infinitely many solutions; represent solutions of such inequalities on number line diagrams.
		CCSS.MATH.CONTENT.6.EE.C.9

Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.

CCSS.MATH.CONTENT.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. |

21st Century Themes							
x	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy

21st Century Skills							
x	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	x	Life and Career Skills		

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

| Strand:
8.1.8.A.1 | Content Statement:
Understand and use technology systems. | Indicator:
Demonstrate knowledge of a real world problem using digital tools. |
|---|---|---|
| 8.1.8.A.2 | Select and use applications effectively and productively. | Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability. |

	Pine Hill Public Schools Curriculum	
Unit Title Geometry		**Unit #: 4**
Course or Grade Level: Math Grade 6		**Length of Time:** 26 Days
Pacing	March-April	

Essential Questions	How can you use different measurements to solve real-life problems?
	   -How do measurements help you solve problems in everyday life?
	   -How is shape important when measuring a figure?	

Content	● Area of parallelograms, triangles, trapezoids, and irregular figures ● Polygons in the coordinate plane ● Volume of prisms ● Surface area of prisms ● Nets	
Skills	● Model the area formula for parallelograms ● Find the area of parallelograms ● Model the area formula for triangles ● Find the areas and missing dimensions of triangles ● Model the area formula of trapezoids ● Find the area of trapezoids ● Determine how changes in dimensions affect perimeter and area ● Draw polygons in the coordinate plane and use coordinates to find length ● Estimate the area of an irregular figure ● Find the areas of composite figures ● Use models to find the volume of rectangular prisms ● Find the volume of rectangular prisms ● Find the volume of triangular prisms ● Find the surface area of rectangular prisms using models and nets ● Find the surface area of rectangular prisms ● Use nets to find the surface area of triangular prisms ● Find the surface area of triangular prisms ● Use nets to find the surface area of a square pyramid ● Find the surface area of pyramids	
Assessments	● Classwork Performance ● Exit Tickets ● Homework Performance ● Chapter Test 9 & 10	
Interventions / differentiated instruction	● ALEKS ● IXL ● Remediation Lessons ● Address gaps in prior knowledge through warm-ups	
Inter-disciplinary Connections	● Investigate a career as a community planner with a focus on the incorporation of skills from economics, environmental design, and geometry. ● Investigate a career as an interior designer with a focus on the incorporation of skills from algebra, geometry, interior design, and intro to CAD	
Lesson resources / Activities	● Inquiry Labs ● Problem Solving Investigations ● Chapter Review ● Performance Task ● Reflection Task ● ALEKS	
	New Jersey Student Learning Standards for Mathematics	

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21st Century Themes	

21st Century Themes

x	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
			21st Century Skills				
x	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy	x	Life and Career Skills		

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Pine Hill Public Schools **Curriculum**	
Unit Title Statistics and Probability	**Unit #: 5**
Course or Grade Level: Math Grade 6	**Length of Time:** 26 Days
Pacing	April-May

Essential Questions	Why is learning mathematics important?
	  -How are the mean, median, and mode helpful in describing data?
	  -Why is it important to carefully evaluate graphs?

Content	● Statistical Questions ● Measures of center ● Measures of variation ● Mean absolute deviation ● Line plots ● Histograms ● Box Plots ● Data distributions ● Line graphs
Skills	● Recognize a statistical question as one that anticipates and accounts for a variety of answers ● Find and interpret the median and mode of a set of data ● Find the measures of variation ● Find and interpret the mean absolute deviation for a data set ● Choose an appropriate measure of central tendency ● Construct and analyze line plots ● Construct and analyze histograms ● Display and interpret data in box plots ● Solve problems using a graph ● Describe a data distribution by its center, spread, and overall shape ● Collect and display data ● Draw and interpret line graphs ● Select and appropriate display for a set of data ● Choose an appropriate unit and tool to measure an object
Assessments	● Classwork Performance ● Exit Tickets ● Homework Performance ● Chapter Test 11 & 12
Interventions / differentiated instruction	● ALEKS ● IXL ● Remediation Lessons ● Address gaps in prior knowledge through warm-ups
Inter-disciplinary Connections	● Investigate a career as a marine biologist with a focus on the incorporation of skills from biology, calculus, chemistry, marine science, and statistics ● Investigate a career as an environmental engineer with a focus on the incorporation of skills from algebra, biology, environmental science, and environmental history
Lesson resources / Activities	● Inquiry Labs ● Problem Solving Investigations ● Chapter Review ● Performance Task ● Reflection Task ● ALEKS
New Jersey Student Learning Standards for Mathematics	
Standard(s) for Mathematical Practice:	**Standard(s) for Mathematical Content:**

1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.	CCSS.MATH.CONTENT.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.* CCSS.MATH.CONTENT.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 center, spread, and overall shape. CCSS.MATH.CONTENT.6.SP.A.3 Recognize that a measure of center 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.. CCSS.MATH.CONTENT.6.SP.B.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots. CCSS.MATH.CONTENT.6.SP.B.5 Summarize numerical data sets in relation to their context, such as by: CCSS.MATH.CONTENT.6.SP.B.5.A Reporting the number of observations. CCSS.MATH.CONTENT.6.SP.B.5.B Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. CCSS.MATH.CONTENT.6.SP.B.5.C Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the

| | | overall pattern with reference to the context in which the data were gathered.

CCSS.MATH.CONTENT.6.SP.B.5.D

Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered. |
|---|---|---|

21st Century Themes						
x	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy

21st Century Skills						
x	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		x	Life and Career Skills		

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

Strand: 8.1.8.A.1	Content Statement: Understand and use technology systems.	Indicator: Demonstrate knowledge of a real world problem using digital tools.
8.1.8.A.2	Select and use applications effectively and productively.	Create a document (e.g. newsletter, reports, personalized learning plan, business letters or flyers) using one or more digital applications to be critiqued by professionals for usability.