

Moonachie School District Mathematics Curriculum: Grade Seven

Born On & Board Approved: August 27, 2024

Re-Adoption: August 26, 2025

The following maps outline the New Jersey Student Learning Standards for grade seven mathematics determined by the State Standards Initiative. Below is a list of assessment tools that are recommended for tracking student progress in these areas. In addition, resources that can be used in conjunction with instruction of these standards are provided but not limited to the list below.

Assessment:

Formative Assessment	Class-Work Review
Open-Ended Problems	Project-Based Assessment
Self-Assessment	Teacher Observation
End of Year Assessment	Group & Cooperative Work
Benchmark Assessment	Math Software (ex. Study Island)
Homework Review	
Summative Assessment	

Resources:

Math Journals	Center Games	Tangrams
Bar Models	Ten Frame	Geometric Shapes
Math Word Wall	Protractors	Geo-Board
Connecting Cubes	Mini White Boards	Textbooks
Number Line	Manipulatives	Rulers
Grid Paper	Math Songs/Poems	Three Dimensional Shapes
Computer Software	Calculators	Wiki-Sticks
Interactive White Board	Fraction Tiles	Pattern Blocks
Compass	Measurement Tools	

Websites:

http://www.aplusmath.com	www.wolframalpha.com	www.interactmath.com	
www.illustrativemathematics.org			
http://www.studyisland.com	www.kutasoftware.com	www.number2.com	
www.buzzmath.com			
http://www.funbrain.com	www.illuminations.nctm.org	www.khanacademy.org	www.ixl.com
http://www.songsforteaching.com		www.betterlesson.com	
www.howthemarketworks.com			
www.purplemath.com			

References: <http://www.state.nj.us/education/aps/cccs/math/>

NJ Technology Standards: <http://www.state.nj.us/education/cccs/2014/tech/8.pdf>

NJ Career Ready Practices: <http://www.state.nj.us/education/aps/cccs/career/>

<u>Standards for Mathematical Practice</u>
MP. 1 - Make Sense of problems and persevere in solving them.
MP. 2 - Reason Abstractly and Quantitatively
MP. 3 - Construct Viable Arguments and Critique the Reasoning of Others
MP. 4 - Model with Mathematics
MP. 5 - Use Appropriate Tools Strategically
MP. 6 - Attend to Precision
MP. 7 - Look for and make use of Structure
MP. 8 - Look for and Express Regularity in Repeated Reasoning

MATHEMATICS: GRADE 7
DOMAIN: RATIO AND PROPORTIONAL RELATIONSHIPS

Length of Time: 23 days

Benchmark Assessment	Formative Assessment	Summative Assessment	Alternate Assessment
STAR Math STAR Math (Spanish)	Entrance Slip Exit Slip Student Reflection Math Accountable Talk Whiteboard Work	Topic Review Topic Test Quick Check Fact Assessment Performance Task	Manipulative Based Task Open Ended Project Choice Board

Cluster Heading

7.RP.A: Analyze proportional relationships and use them to solve real-world and mathematical problems.

Performance Indicators

[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 $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{1}{2} \div \frac{1}{4}$ miles per hour, equivalently 2 miles per hour.

[7.RP.A.2](#) Recognize and represent proportional relationships between quantities.

- 7.RP.A.2a: 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.
- 7.RP.A.2b: Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
- 7.RP.A.2c: Represent proportional relationships by 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 $t = pn$.
- 7.RP.A.2d: 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 multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
Students will be able to:	Constant of Proportionality Ratio	- Task Cards - Google Forms

<ul style="list-style-type: none"> - Determine if two ratios are proportional. - Convert a rate to a unit rate. - Determine if points on a graph represent a proportional relationship. - Find constant of proportionality, k, from a table, graphed points. - Write an equation to model proportional relationships. - Solve multi-step real world applications using simple interests, discount, mark-up, percent change, commission, gratuities. 	Rates Unit Rates Proportions Complex fractions Unit Price Interest Commission Tax Markup Markdown Discount Equivalent ratios & rates	<ul style="list-style-type: none"> - Party Planning Project-Students will decide which items are the better buy. - Graphing on a coordinate plane. - Collaborative activities - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling
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MATHEMATICS: GRADE 7
DOMAIN: THE NUMBER SYSTEM

Length of Time: 23 days

Benchmark Assessment	Formative Assessment	Summative Assessment	Alternate Assessment
STAR Math STAR Math (Spanish)	Entrance Slip Exit Slip Student Reflection Math Accountable Talk Whiteboard Work	Topic Review Topic Test Quick Check Fact Assessment Performance Task	Manipulative Based Task Open Ended Project Choice Board

Cluster Heading

7.NS.A: Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.


Performance Indicators

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.

- 7.NS.A.1.a: Describe situations in which opposite quantities combine to make 0. For example, in the first round of a game, Maria scored 20 points. In the second round of the same game, she lost 20 points. What is her score at the end of the second round?
- 7.NS.A.1.b: 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.
- 7.NS.A.1.c: 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.
- 7.NS.A.1.d: Apply properties of operations as strategies to add and subtract rational numbers.

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

- 7.NS.A.2a: Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
- 7.NS.A.2b: 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 q and p are integers, then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real world contexts.
- 7.NS.A.2c: Apply properties of operations as strategies to multiply and divide rational numbers.
- 7.NS.A.2d: Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

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

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
Students will be able to: <ul style="list-style-type: none"> - Identify rational numbers and write them in decimal form. - Add, subtract, multiply and divide positive and negative integers. - Model integer addition/subtraction in real-life applications. 	Integer Absolute Value Opposites Additive Inverse Multiplicative Inverse Real numbers Whole numbers	<ul style="list-style-type: none"> - Notice and Wonder Activities - Model operations on a Number Line - Color coded manipulatives - Interactive Notebooks - Choice Boards - Integer Bingo - Collaborative activities

<ul style="list-style-type: none"> - Use properties of operations to add, subtract, multiply and divide rational numbers. - Understand how integers and their opposites are related. 	Rational numbers Irrational numbers Distributive property Reciprocal	<ul style="list-style-type: none"> - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling
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MATHEMATICS: GRADE 7
DOMAIN: EXPRESSIONS AND EQUATIONS

Length of Time: 31 days

Benchmark Assessment	Formative Assessment	Summative Assessment	Alternate Assessment
STAR Math STAR Math (Spanish)	Entrance Slip Exit Slip Student Reflection Math Accountable Talk Whiteboard Work	Topic Review Topic Test Quick Check Fact Assessment Performance Task	Manipulative Based Task Open Ended Project Choice Board

Cluster Heading

7.EE.A: Use properties of operations to generate equivalent expressions.

Performance Indicators

[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](#) Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
Students will be able to: <ul style="list-style-type: none"> - Identify like terms. - Combine like terms. - Factor linear expressions. - Apply the distributive property to variable expressions. 	Constant Variable Variable expression Terms	<ul style="list-style-type: none"> - Notice and Wonder Activities - Evaluating algebraic expressions - Teacher Generated Activities - Collaborative activities - Class discussion - Independent practice - Note-taking

- Interpret the coefficient in real-world model equation.		- Sentence frames - Labeling
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Cluster Heading

7.EE.B: Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Performance Indicators

[7.EE.B.3](#) Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation. 🌱

[7.EE.B.4](#) Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

- 7.EE.B.4.a: Solve word problems leading to equations of the form $px + q = r$ and $p(x+q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms with accuracy and efficiency. 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?
- 7.EE.B.4.b: Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality 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.

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
Students will be able to: <ul style="list-style-type: none"> - Write an algebraic expression to represent a written expression. - Write algebraic equations to model real-world situations. 	Inverse operations Multiplicative inverse Additive inverse Inequality Solution set	<ul style="list-style-type: none"> - Match inequalities with modeled real-world applications - Match equations with modeled real-world applications - Collaborative activities - Class discussion

<ul style="list-style-type: none"> - Solve inequalities using inverse operations. - Solve inequalities with negative coefficients. - Recognize equivalencies between different forms of rational numbers. - 		<ul style="list-style-type: none"> - Independent practice - Note-taking - Sentence frames - Labeling
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MATHEMATICS: GRADE 7
DOMAIN: GEOMETRY

Length of Time: 39 days

Benchmark Assessment	Formative Assessment	Summative Assessment	Alternate Assessment
STAR Math STAR Math (Spanish)	Entrance Slip Exit Slip Student Reflection Math Accountable Talk Whiteboard Work	Topic Review Topic Test Quick Check Fact Assessment Performance Task	Manipulative Based Task Open Ended Project Choice Board

Cluster Heading

7.G.A Draw, construct, and describe geometrical figures and describe the relationships between them.

Performance Indicators

7.G.A.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.

7.G.A.2 Draw (with technology, with ruler and protractor, as well as freehand) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

7.G.A.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
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<p>Students will be able to:</p> <ul style="list-style-type: none"> - Use scale drawing as a representation of actual lengths and area. - Use proportions to find missing dimensions in scale figures. - Use proportional reasoning to find scale factor. - Sketch quadrilaterals & triangles with given conditions. - Construct triangles with given conditions and conclude whether or not a triangle is formed and what type of triangle it is. - Describe cross sections of right rectangular prisms and pyramids. 	<p>Scale Drawing Scale Scale Factor Cross-Section</p>	<ul style="list-style-type: none"> - Draw, construct and describe geometrical figures and describe the relationships between them. - Producing scale drawings and reproduce using a different scale. - Solve real-life and mathematical problems involving two and three-dimensional figures. - Online Platforms - Teacher Generated Activities - Collaborative activities - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling
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<p>Cluster Heading</p>
<p>7.G.B Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</p>
<p>Performance Indicators</p>
<p>7.G.B.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p>
<p>7.G.B.5 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.</p>
<p>7.G.B.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. 🌱</p>

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
<p>Students will be able to:</p> <ul style="list-style-type: none"> - Find the area and circumference of a circle. 	<p>Surface Area Volume Supplementary</p>	<ul style="list-style-type: none"> - Solving problems involving area and circumference of circles.

<ul style="list-style-type: none"> - Given area or circumference, find radius or diameter/ 	<ul style="list-style-type: none"> Complementary Vertical Adjacent Acute Obtuse Right Angle Straight Angle Circumference Diameter Radius Area Congruence 	<ul style="list-style-type: none"> - Recognize the relationship between the circumference and diameter of a circle and π. - Use the area to find the radius and diameter. - Write and solve equations to find missing angle measures. - Collaborative activities - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling
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MATHEMATICS: GRADE 7
DOMAIN: STATISTICS AND PROBABILITY

Length of Time: 63 days

Benchmark Assessment	Formative Assessment	Summative Assessment	Alternate Assessment
<ul style="list-style-type: none"> STAR Math STAR Math (Spanish) 	<ul style="list-style-type: none"> Entrance Slip Exit Slip Student Reflection Math Accountable Talk Whiteboard Work 	<ul style="list-style-type: none"> Topic Review Topic Test Quick Check Fact Assessment Performance Task 	<ul style="list-style-type: none"> Manipulative Based Task Open Ended Project Choice Board

Cluster Heading
7.SP.A: Use random sampling to draw inferences about a population.
Performance Indicators
<p>7.SP.A.1 Understand that 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.</p> <p>7.SP.A.2 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</p>

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.

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
Students will be able to: <ul style="list-style-type: none"> - Distinguish between a population and sample. - Establish whether a sample is representative of a population. - Generate random samples. 	Population Random Sample Biased Random Inferences Data Prediction Representative Sample	<ul style="list-style-type: none"> - Teacher-generated activities - Survey Project - Collect statistical data from a class and compare it to a larger population (i.e. shoe size of one class compared to shoe size of grade level.) - Collaborative activities - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling

Cluster Heading

7.SP.B: Draw informal comparative inferences about two populations.

Performance Indicators

7.SP.B.3 Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. 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, about twice the variability (mean absolute deviation) on either team; on a dot 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 seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
Students will be able to: <ul style="list-style-type: none"> - Use box plots to compare and make inferences about populations 	Mean Median Mode	<ul style="list-style-type: none"> - Find the mean, median, mode, range of their test scores.

<ul style="list-style-type: none"> - Use median and IQR of data sets to informally compare and make inferences about two populations. - Use the mean, median, mode, range, and mean absolute deviation (MAD) to compare populations. 	<ul style="list-style-type: none"> Range Mean Absolute Deviation Interquartile Range Box Plot Variability Dot Plot Measures of Center Outlier 	<ul style="list-style-type: none"> - Collect statistics on class characteristics, for example, height, shoe size, etc. and analyze. - Use collected data to construct a box plot. - Collaborative activities - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling
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Cluster Heading

7.SP.C: Investigate chance processes and develop, use, & evaluate probability models.

Performance Indicators

7.SP.C.5 Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.

[7.SP.C.6](#) 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. 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 probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

- 7.SP.C.7a: Develop a uniform probability model by assigning equal probability to all outcomes and use the model 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.
- 7.SP.C.7b: Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. 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.C.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.

- 7.SP.C.8a: Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
- 7.SP.C.8b: Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.
- 7.SP.C.8c: Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?

Student Learning Objectives	Key Vocabulary	Suggested Tasks/Activities
<p>Students will be able to:</p> <ul style="list-style-type: none"> - Use probability to describe the likelihood that an event will occur. - Use theoretical & experimental probability to predict an outcome/make a prediction. - Compare and explain the differences between theoretical and experimental probability. - Use a probability model to make an estimate. - Test and verify the appropriateness of their math models. - Use a tree diagram, a table, or organized list to represent the sample space for a compound event. - Find the probability of a compound event. - Model a real-world situation involving a compound event and predict its outcomes using a simulation. 	<p>Theoretical Probability Experimental Probability Simulation Outcomes Sample Space Probability Model Event Compound Event Simple Event Tree Diagram</p>	<ul style="list-style-type: none"> - Engage students in games of chance. - Conduct experiments involving probability, i.e., marbles in a bag, rolling a number cube, flipping a coin, spinning a spinner with equal sections. - Compare their experimental results to theoretical probability. - Make predictions about the likelihood of an event occurring. - Explain the possible discrepancy between the experimental and theoretical probabilities. - Collect experimental data (coin flipping) and compare it to theoretical data. Collaborative activities - Class discussion - Independent practice - Note-taking - Sentence frames - Labeling

INTERDISCIPLINARY CONNECTIONS

<p>Other Core Content Areas</p>	<p>English Language Arts</p> <ul style="list-style-type: none"> - L.KL.7.2.A: Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases. - SL.PE.7.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. - SL.PE.7.1.B: Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. - SL.PE.7.1.C: Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. <p>Science</p> <ul style="list-style-type: none"> - MS-ETS1-3 Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. - MS-ETS1-4 Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved. <p>Social Studies</p> <ul style="list-style-type: none"> - 6.1.8.EconET.3.a: Identify the effect of inflation and debt on the American people and evaluate the policies of state and national governments during this time. - 6.3.8.CivicsPR.4: Use evidence and quantitative data to propose or defend a public policy related to climate change. - 6.3.8.EconET.1: Using quantitative data, evaluate the opportunity cost of a proposed economic action, and take a position and support it (e.g., healthcare, education, transportation).
<p>Career Readiness, Life Literacies and Key Skills</p>	<ul style="list-style-type: none"> - 9.4.8.CI.1: Assess data gathered on varying perspectives on causes of climate change (e.g., cross cultural, gender-specific, generational), and determine how the data can best be used to design multiple potential solutions. - 9.4.8.IML.3: Create a digital visualization that effectively communicates a data set using formatting techniques such as form, position, size, color, movement, and spatial grouping. - 9.4.8.IML.4: Ask insightful questions to organize different types of data and create meaningful visualizations. - 9.4.8.IML.5: Analyze and interpret local or public data sets to summarize and effectively

	<p>communicate the data.</p> <ul style="list-style-type: none"> - 9.4.8.TL.1: Construct a spreadsheet in order to analyze multiple data sets, identify relationships, and facilitate data-based decision-making - 9.4.8.TL.2: Gather data and digitally represent information to communicate a real-world problem. - 9.4.8.TL.3: Select appropriate tools to organize and present information digitally. - 9.4.8.TL.4: Synthesize and publish information about a local or global issue or event.
Computer Science and Design Thinking	<ul style="list-style-type: none"> - 8.2.8.ED.3: Develop a proposal for a solution to a real-world problem that includes a model (e.g., physical prototype, graphical/technical sketch). - 8.2.8.ED.7: Design a product to address a real-world problem and document the iterative design process, including decisions made as a result of specific constraints and trade-offs (e.g., annotated sketches).

MODIFICATIONS

English Language Learners	Special Education	At-Risk	Gifted and Talented	504
Scaffolding Word walls Sentence/paragraph frames Bilingual dictionaries/translation Think Alouds Read Alouds Highlight key vocabulary Annotation guides Think-pair-share Visual aides Modeling Cognates	Word walls Visual aides Graphic organizers Multimedia Leveled-readers Assistive technology Notes/summaries Extended time Answer masking Answer eliminator Highlighter Color Contrast	Teacher tutoring Peer tutoring Study guides Graphic organizers Extended time Parent communication Modified assignments Counseling	Curriculum compacting Challenge assignments Enrichment activities Tiered activities Independent research/inquiry Collaborative teamwork Higher level questioning Critical/Analytical thinking tasks Self-directed activities	Word walls Visual aides Graphic organizers Multimedia Leveled readers Assistive technology Notes/summaries Extended time Answer masking Answer eliminator Highlighter Color contrast Parent communication Modified assignments Counseling