



Township of Ocean Schools

Assistant Superintendent
Office of Teaching and Learning

SPARTAN MISSION:

Meeting the needs of all students with a proud tradition of academic excellence.

DEPARTMENT Mathematics

COURSE Mathematics, Grade 6

Curriculum Development Timeline

School: Township of Ocean Intermediate School

Course: Mathematics, Grade 6

Department: Mathematics

Board Approval	Supervisor	Notes
July 2006	Janet Bluefield	Born Date
July 2009	Janet Bluefield	Revisions/Alignment to NJCCS
July 2012	Janet Bluefield	Revisions
August 2016	Amanda Maltese	Revisions
July 2017	Nichole Kerney	Revisions/Alignment to NJSIS
August 2018	Nichole Kerney	Revisions
March 2019	Nichole Kerney	Review
August 2022	Gerard Marrone	Alignment to Standards Incorporate State Mandates
August 2025	Greg Colon	Revisions/Alignment to Standards

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Township of Ocean Pacing Guide			
Week	Marking Period 1	Week	Marking Period 3
1	Decimals, Fractions, Multiples & Factors	21	Rational Numbers
2	Decimals, Fractions, Multiples & Factors	22	Rational Numbers
3	Decimals, Fractions, Multiples & Factors	23	Ratio Concepts and Reasoning
4	Statistics: Measures of Center/Data Display	24	Ratio Concepts and Reasoning
5	Statistics: Measures of Center/Data Display	25	Ratio Concepts and Reasoning
6	Statistics: Measures of Center/Data Display	26	Ratio Concepts and Reasoning
7	Understand Numerical & Algebraic Expression	27	Ratio Concepts and Reasoning
8	Understand Numerical & Algebraic Expression	28	Ratio Concepts and Reasoning
9	Understand Numerical & Algebraic Expression	29	Geometry
10	Understand Numerical & Algebraic Expression	30	Geometry
Week	Marking Period 2	Week	Marking Period 4
11	Algebra: Understand Numerical and Algebraic Expressions	31	Geometry
12	Algebra: Understand Numerical and Algebraic Expressions	32	Geometry
13	Algebra: Understand Numerical and Algebraic Expressions	33	Geometry
14	Algebra: Understand Numerical and Algebraic Expressions	34	Geometry

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15	Algebra: Solve Equations & Inequalities	35	Geometry
16	Algebra: Solve Equations & Inequalities	36	Geometry
17	Algebra: Solve Equations & Inequalities	37	Statistics: Measures of Variability
18	Algebra: Solve Equations & Inequalities	38	Statistics: Measures of Variability
19	Algebra: Solve Equations & Inequalities	39	Statistics: Measures of Variability
20	Algebra: Solve Equations & Inequalities	40	Statistics: Measures of Variability

Core Instructional & Supplemental Materials including various levels of Texts

Core Instruction: EnVision 2.0 6th Math Workbook and Online Platform (Pearson) ©2024

Supplemental: IXL Math, ExamView (Pearson) and NJSLA Released Questions

Special Education Supplemental: Prodigy

[NJ Climate Change Educational Resources*](#)

* NJ Climate Change Education appears in the "Ratio Concepts and Reasoning" Unit

Time Frame	3 Weeks
Topic	
Decimals, Fractions, Multiples & Factors (EnVision 2.0 Topics 1, 2 and 3)	
Alignment to Standards	
6.NS.A - Apply and Extend Previous Understandings of Multiplication and Division Divide fractions by fractions. 6.NS.A.1 - Interpret and Compute Quotients of Fractions - Solve word problems involving division of fractions by fractions, e.g. by using visual fraction models and equations to represent the problem. 6.NS.B - Compute Fluently - Compute fluently with multi-digit numbers. Find common factors and multiples. 6.NS. B2 - Divide Multi-Digit Numbers - With accuracy and efficiency, divide multi-digit numbers using the standard algorithm.	

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6.NS.B.3 - All Operations with Multi-Digit Decimals - With accuracy and efficiency, add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

6.NS.B.4 - Greatest Common Factor - 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.

Learning Objectives and Activities

This unit of study (Topics 1 and 2) focuses on a deep understanding of our number system through fluency in computations with decimals, fractions and finding common factors and multiples. The conceptual underpinnings that provide conceptual cohesion of the content include algorithms for performing each operation with rational numbers. Most algorithms for operations with rational numbers use equivalence to transform calculations into simpler ones. Another prominent idea is that calculations can be estimated by replacing numbers with those that are close and easy to compute with mentally.

SWBAT answer the following questions:

- How can you estimate with decimals?
- How can you add, subtract, multiply and divide with decimals?
- How can you use prime and composite numbers to write the prime factorization of a number?
- How can you find the greatest common factor of two numbers?
- How can you find the least common multiple of two numbers?
- How can you represent division of fractions?
- How can you divide a whole number by a fraction?
- How can you model dividing a fraction by a fraction?
- How can you find the quotient of two fractions?
- How can you estimate the quotient of mixed numbers?

SWBAT demonstrate understanding of the following:

- Estimates can be found by using strategies such as rounding and compatible numbers. Some problems can be solved with an estimate.
- A general method, or standard algorithm, can be used to add, subtract, multiply and divide decimals fluently.
- Any number can be written as a unique product of prime numbers called its prime factorization.
- The greatest common factor (GCF) is the greatest factor that two or more numbers have in common. The GCF is 1 if the only common factor is 1.
- All non-zero whole numbers have multiples in common, include the smallest or least common multiple (LCM). Sometimes the LCM is one of the numbers.

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- Visual models, such as number lines and area models, and equations can be used to represent and solve problems involving division of fractions.
- Dividing a whole number by a fraction is equivalent to multiplying the whole number by the fraction's reciprocal.
- Visual model, such as fraction strips, number lines and area models can be used to represent and solve problems involving division of a fraction by a fraction.
- Dividing by a fraction is equivalent to multiplying by the fraction's reciprocal.
- Rounding compatible numbers can be used to estimate the quotient of mixed numbers.

Learning Activities

- Center Games: "Think Together", "Toss and Talk", "Tic Tac Toe", "Display the Digits", "Teamwork", "Quick Questions" and "Clip and Cover"
- Math and Science Activity: "Mass Conservation" and "Cicadas"
- Math and Science: "Density" and "Prime Protection"
- Problem Solving Reading Math

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks
- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

Students who demonstrate understanding can:

Science: MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient precision to ensure successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

Students estimate sums and differences while defining the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles.

Science: MS-ETS1-2

Involves evaluating design solutions using a systematic process, based on jointly developed criteria, to determine how well they meet the problem's criteria and constraints.

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Science: MS-ESS3-3: Earth and Human Activity

Involves applying scientific principles to design methods for monitoring and minimizing human impacts on the environment.

Envision 2.0 STEM Activity "Improve Your School"

Math - Students use rational numbers to represent costs and other measurements as they gather relevant data. They will use rational numbers to represent quantities in a solution proposal.

Science - Students apply the engineering design process to find possible solutions to the problem identified.

Engineering and Technology - Students think like an engineer and apply the engineering design process as they work toward a proposed solution. The solution may require implementation of established or innovative technologies.

enVision 2.0 Science

"Pick a Project"

- 1 - Design your own board game
- 2- Plan menu for school fundraiser
- 3 - Design a Vegetable and Herb Garden
- 4 - Present a Proposal for a Tiger Exhibit

Career Readiness, Life Literacies, and Key Skills

enVision 2.0 Mathematics Common Core

9.4.12.CI.1 Demonstrate the ability to reflect, revise, and explain reasoning and decision-making when solving problems collaboratively.

9.4.8.CI.2 Collaborate with others to develop a solution using multiple perspectives. Aligns with discussion, group presentations, or group project-based learning.

9.4.8.CI.3 Use collaboration technologies to explore diverse viewpoints and generate ideas for solutions. Group problem-solving, peer teaching, or inquiry based tasks.

9.4.12.CI.2 Critically analyze ideas within and between groups to ensure productive collaboration. Encourages meaningful group work with clear roles and outcomes.

9.1.8.PB.2: Explain how different circumstances can affect one's personal budget.

9.1.8.PB.4: Construct a simple personal savings and spending plan based on various sources of income and different stages of life (e.g. teenager, young adult, family).

9.1.8.PB.6: Construct a budget to save for short-term, long-term, and charitable goals.

9.1.8.CDM.2: Demonstrate an understanding of the terminology associated with different types of credit (e.g., credit cards, installment loans, mortgages, lines of credit) and compare and calculate the interest rates associated with each.

9.1.8.FI.3: Evaluate the most appropriate financial institutions to assist with meeting various personal financial needs and goals.

9.1.8.FI.4: Analyze the interest rates and fees associated with financial products.

9.1.8.RM.2: Analyze the need for and value of different types of insurance and the impact of

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COURSE Mathematics, Grade 6

deductibles in protecting assets against loss.

9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities and utility for accomplishing a specified task

Technology Integration

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

9.4.12.Cl.1 - Use collaborative digital tools to work together and share information

9.4.12.Cl.2 - Demonstrate originality and inventions in work and understand the real-world limits to adopting new ideas.

9.4.12.CC.3 - Collaborate in diverse teams to achieve a common goal and contribute to the collective work

Time Frame	7 Weeks
Topic	
Statistics and Probability (EnVision 2.0 Topic 8)	
Alignment to Standards	
6.SP.A - Develop Understanding of Statistical Variability 6.SP.A.1 - Statistical Question - Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. 6.SP.A.2 - Set of Data - 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. 6.SP.A.3 - Measure of Center - 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 within a single number. 6.SP.B - Summarize and Describe Distributions 6.SP.B.4 - Numerical Data - Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	

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6.SP.B.5 - Summarize Numerical Data Sets in relation to their context, such as by:
6.SP.B.5a - Report & Summarize Numerical Data - Reporting the number of observations to summarize numerical data
6.SP.B.5b - Describe - Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
6.SP.B.5c - Quantitative Measures of Center and Variability 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.
6.SP.B.5d - Shape of the Data Distribution - Relating the choice of measures of center and variability to the shape of the distribution and context in which the data were gathered.

Learning Objectives and Activities

Topic 8 focuses on developing understanding of variability and the concept of statistical measures. Topic 8 focuses on the conceptual understanding of how to describe a data distribution. Students learn that a question is statistical if there is an expectation of a variety of answers. Data generated by a statistical question has variability. Students are introduced to the measures of center. The conceptual underpinnings that provide cohesion of the content is that there are special numerical measures used to describe the center and spread of numerical data sets. The most appropriate measure for a situation depends on the nature of the data and how the measures will be used.

SWBAT answer the following questions:

- How can you identify and write statistical questions?
- How can you use a single number to describe a data set?
- How can the mean, median and mode be used to summarize data?
- How can you make and use a frequency table and a histogram?
- How can variability of data be described with one number?
- Which statistical measure is most useful to describe a given situation?
- How can a data distribution be summarized?

SWBAT demonstrate understanding of the following:

- Statistical questions anticipate variability in responses and can be answered by collecting and analyzing data.
- The mean is one measure of center used to describe a center of data.
- Different measures can be used to describe a set of data.
- Data can be organized into equal ranges using a frequency table or a histogram.
- Measures of Variability describe the spread and clustering of data in a set.
- Measures of center can be used to describe and summarize a data set.
- A set of data collected to answer a statistical question has a distribution that can be described by its center, spread and overall shape.

Learning Activities

- Math and Science Activity: "Predicting the Weather" and "Tree Rings"
- Problem Solving Reading Mats

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- Center Games: “Think Together” and “Teamwork”

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks
- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

Science: MS-LS2-2: In this statistics unit students construct an explanation that predicts patterns of interactions among organisms.

MS-ESS-2 Earth Systems

Construct an explanation based on evidence for how geoscience processes have changed Earth’s surface at varying time and spatial scales.

MS-ETS1-1 Engineering Design

Modeling builds on experiences and progresses to developing, using, and revising models to describe, test and predict more abstract phenomena and design systems.

CS&DT: 8.2.8.ETW.4: Compare the environmental effects of two alternative technologies devised to address climate change issues and use data to justify which choice is best.

enVision 2.0 “Pick a Project” pages 467-468

1 - explore video blogs

2 - Investigate cereals

3 - Analyze a Time Trial

4- Survey your school

enVision 2.0 STEM Activity “Shake It Up”

Math - Students summarize data using measures of center and variability. Then they display their findings using an appropriate data display.

Science - Students research data about earthquakes, their frequency, and magnitude, how they are measured and the types of destruction that occur depending upon the magnitude of the earthquake.

Engineering and Technology - Students think like an engineer and apply the engineering design process as they identify the constraints engineers must consider when designing earthquake-proof

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COURSE Mathematics, Grade 6

structures and roadways.

Career Readiness, Life Literacies, and Key Skills

9.4.12.CI.1

Demonstrate the ability to reflect, revise, and explain reasoning and decision-making when solving problems collaboratively

9.4.8.CI.2

Collaborate with others to develop a solution using multiple perspectives. Aligns with discussion, group presentations, or group project-based learning.

9.4.8.CI.3

Use collaborative technologies to explore diverse viewpoints and generate ideas for solutions. Group problem-solving, peer teaching, or inquiry based tasks.

9.4.12.CI.2

Critically analyze ideas within and between groups to ensure productive collaboration. Encourages meaningful group work with clear roles and outcomes.

Technology Integration

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

9.4.12.CI.2 - Communicate ideas clearly and effectively, using verbal, nonverbal, and digital communication techniques.

9.4.12.CT.3 - Engage in discussions to clarify ideas, present opinions, and build on others' contributions

Time Frame	8 Weeks
Topic	
Algebra: Understand Numerical and Algebraic Expressions (EnVision 2.0 Topic 3)	
Alignment to Standards	

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6.EE.A Apply & Extend Previous Understanding Arithmetic to Algebraic Expressions
6.EE.A.1 - Numerical Expressions - Write and evaluate numerical expressions involving whole-number exponents.
6.EE.A.2 - Evaluate Expressions - Write, read, and evaluate expressions in which letters stand for numbers
6.EE.A.2a - Write Expressions - Write expressions that record operations with numbers and with letters standing for numbers.
6.EE.A.2b - Parts of an Expression - 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.
6.EE.A.2c - Evaluate Expressions - 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 where there are no parentheses to specify a particular order (Order of Operations)
6.EE.A.3 - Properties of Operations - Apply the properties of operations to generate equivalent expressions.
6.EE.A.4 - Equivalent Expressions - Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them)

Learning Objectives and Activities

Topic 3 applies and extends previous understandings of arithmetic and numerical expressions to algebraic expressions. Students interpret, evaluate, and write algebraic expressions, including ones of exponents, related to both mathematical and real-world context. The conceptual underpinnings that provide cohesion of the content is that variables can be used to stand for a number. Properties of operations are equally true for algebraic expressions as for numerical expressions.

SWBAT answer the following questions:

- How can you write a number using exponents?
- How do you evaluate expressions?
- How can we write an Algebraic Expression?
- How can you describe the parts of an expression?
- How can you Evaluate an Algebraic Expression?
- How can you write equivalent expressions?
- How can you simplify algebraic expressions?
- How can you identify equivalent expressions?
- How can you use formulas to solve problems?

SWBAT demonstrate understanding of the following:

- A whole number exponent can be used to represent repeated multiplication of a number.
- There is an agreed upon order in which operations are carried out in a numerical expression.
- Algebraic expressions use variables to describe situations in which all of the information is not known.
- Parts of expressions can be described using words such as term, coefficient, product and factor.
- The value of an algebraic expression can be found by replacing variables with given numbers

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and doing the calculation that results.

- The Distributive property and other properties of operations are used to write equivalent expressions.
- Algebraic expressions can be simplified using the properties of operations to combine like terms and generate equivalent expressions.
- Equivalent expressions have the same value regardless of the number substituted for the variable. Properties of operations can be used to verify that expressions are equivalent.
- A formula is a rule that uses symbols to relate two or more quantities.

Learning Activities

- Center Games: "Display the Digits", "Toss and Talk", "Clip and Cover" and "Teamwork" Activities
- Math and Science Activity: "Energy Transfer in the Ecosystem" and "Nature's Recyclers"
- Problems Solving Reading Mat

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks
- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

enVision 2.0 Mathematics

Next Generation Science Standards

MT-ETS-1 Engineering Design

Requires students to define design problems with precise criteria and constraints, including scientific knowledge, to ensure a successful solution.

MS-ETS1-2 Engineering Design

Involves evaluating design solutions using a systematic process to determine how well they meet the problem's criteria and constraints

"Pick a Project" pages 121-122

1 - Write an Algebraic Poem

2- Plan a team purchase (equipment)

3- Design a Pool Patio

4 - Calculate with Exponents

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Design a Bridge workbook 118

In this activity, students will begin the process of designing a bridge in their community and learn about the engineering design process as they consider the number, types and weights of vehicles that will utilize the bridge.

What's the Math? Students think critically as they identify the number and types of vehicles that can cross a bridge with a maximum weight limit of 100,000 pounds.

As they complete background research, mathematicians collect and organize data that may include measurements of size and weight.

What's the Science? Students engage in the first steps of the engineering design process by taking into account the constraints of the problem with a maximum weight of 100,000 pounds. Students also consider their community, the natural environment where their bridge may be constructed.

What's the Engineering and Technology? Students begin to understand what engineers do and the wide varieties of areas in which engineers work.

Career Readiness, Life Literacies, and Key Skills

9.4.12.CT.4 - Demonstrate creativity in generating ideas and solutions through brainstorming or innovative thinking.

9.4.12.TL.5 – Use technology to produce creative work such as videos, graphics, or presentations that demonstrate innovative thinking.

9.4.12.CT.2 - Apply critical thinking strategies to solve complex problems and consider multiple solutions.

9.4.12.TL.2 - Use technology tools to analyze data, identify patterns, and draw conclusions.

Technology Integration

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

9.4.12.CI.2 - Communicate ideas clearly and effectively with reason using verbal , nonverbal and digital communication techniques.

9.4.12.CT.3 - Engage in discussions to clarify ideas, present opinions, and build on others' contributions.

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Time Frame	4 Weeks
Topic	
Algebra: Solve Equations and Inequalities (EnVision 2.0 Topic 4)	
Alignment to Standards	
6.EE.B Reason about and Solve One-Variable Equations and Inequalities 6.EE.B.5 - Understand Equations and Inequalities - 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. 6.EE.B.6 - Variables - Use variables to represent numbers and write expressions when solving real-world or 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 Problems - 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. 6.EE.B.8 - Write an Inequality - 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. 6.EE.C - Represent and analyze quantitative relationships between dependent and independent variables. 6.EE.C.9 - Variables Representing Two Quantities - 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 equations.	
Learning Objectives and Activities	
Topic 4 focuses on solving one-step equations and simple inequalities. Students develop a deep understanding of algebraic equations, and solve them by applying properties of equality and inverse operations. Solutions to inequalities are graphed on a number line. Two conceptual underpinnings that provide cohesion of the content include: (1) many mathematical and real-world situations can be represented using variables, operations and number in expressions and equations; (2) the rules of arithmetic and algebra can be used together with notions of equivalence to transform equations and inequalities so solutions can be found. SWBAT answer the following questions: How can you determine whether a given number makes an equation true?	

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- How can you write equivalent equations?
- How can you solve Addition and Subtraction equations?
- How can you solve Multiplication and Division equations?
- How can you solve equations involving fractions and mixed numbers?
- How can you write and solve an inequality to describe the situation?

SWBAT demonstrate understanding on the following:

- A solution to an equation is a value for the variable that makes the equation true. An equation is true when the expressions or numbers on both sides of the equal sign have the same value.
- The same number can be added to, subtracted from, or multiplied on both sides of an equation and equality is maintained. Dividing both sides of an equation by the same non-zero number also maintains equality.
- Solving an equation involves finding the value of the variable that makes the equation true.
- Inverse relationships and properties of equality can be used to one-step multiplication and division equations.
- Inverse relationships and properties of equality can be used to solve equations with fractions and mixed numbers.
- An inequality is a mathematical sentence that contains the inequality symbol, and describes a situation that has an infinite number of numerical possibilities that can be represented algebraically and graphed on a number line.

Learning Activities

- Center Games: "Toss and Talk", "Think Together" and "Display the Digits"
- Problem Solving Reading Mat
- Math and Science Activity: "#1 Polyethylene terephthalate (PET) bottles" and "Biodegradable Materials"

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks
- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

Next Generation Science Standards

MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a

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DEPARTMENT Mathematics

COURSE Mathematics, Grade 6

successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

MS-ETS1-2 Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

MS-ETS1-3 Engineering Design

Involves analyzing test data to identify similarities and differences among design solutions, combining best characteristics into a new solution.

MS-ETS1-4 Engineering Design

Involves developing a model to generate data for iterative testing and modification to achieve optimal design.

“Pick a Project” pages 183-184

- 1- Analyze an Exercise Routine
- 2- Write and Illustrate a children’s book
- 3- Make a Model of a Staircase
- 4 - Plan a race (snails)

Envision STEM Activity “Design a Bridge” Part 2

In this project, students design a bridge for their community from the task assigned in Topic 3

Students learn about the engineering design process to propose solutions.

What’s the Math?

Students use equations and inequalities to represent measurements as they gather relevant data.

They will solve the equations and inequalities as they develop prototypes.

What’s the Science?

Students apply the engineering design process to find possible solutions to the problem identified.

They develop models and determine similarities and differences among design solutions.

What’s the Engineering and Technology ?

Students think like an engineer and apply the engineering design process as they brainstorm solutions and develop prototypes. The solution may require implementation of established or innovative technologies.

Career Readiness,cc Life Literacies, and Key Skills

9.4.12.Cl.3: Investigate new challenges and opportunities for personal growth, advancement and transition

9.4.12.CT.1: Identify problem-solving strategies used in the development of an innovative product or practice.

Technology Integration

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.

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- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

9.4.12.CI.2 - Communicate ideas clearly and effectively, using verbal, nonverbal, and digital communication techniques.

9.4.12.CT.3 - Engage in discussions to clarify ideas, present opinions and build on others' contributions.

Time Frame	2 Weeks
Topic	
Rational Numbers (EnVision 2.0 Topic 2)	
Alignment to Standards	
6.NS.C Apply and Extend Previous Understandings of Numbers to the System of Rational Numbers 6.NS.C.5 Positive and Negative Numbers - 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. 6.NS.C.6 - Rational Number - 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. 6.NS.C.6a - Opposite Signs - 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. 6.NS.C.6b - Ordered Pairs - 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. 6.NS.C.6c - Horizontal and Vertical Number Line Diagrams - Find and position integers and other rational numbers on a horizontal and 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 6.NS.C.7a - Inequalities - Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram	

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- 6.NS.C.7b - Statements of Order - Write, interpret, and explain statements of order for rational numbers in real-world contexts.
- 6.NS.C.7c - Absolute Value - 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.
- 6.NS.C.7d - Comparisons of Absolute Value - Distinguish comparisons of absolute value from statements about order.
- 6.NS.C.8 - Graphing Points in Four Quadrants - 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

Learning Objectives and Activities

Topic 2 focuses on applying and extending previous understandings of numbers to the system of rational numbers including developing a deep understanding of integers and other rational numbers, and locating points associated with rational number ordered pairs on the coordinate plane. The conceptual underpinnings that provide cohesion of the content is that the set of real numbers is infinite and ordered. Counting numbers, Whole numbers, Integers, and Rational numbers are real numbers. Each real number can be associated with a unique point on the number line. The coordinate plane is an extension of the number line to two dimensions. So any point with real-number coordinates can be graphed on a coordinate plane.

SWBAT answer the following questions:

- What are integers?
- How can you plot rational numbers on a number line?
- How can you compare and order rational numbers?
- How can you represent and interpret absolute values?

SWBAT demonstrate understanding of the following:

- Integers are the counting numbers, their opposites, and zero.
- Each rational number can be associated with a unique point on the number line.
- Compare and order rational numbers
- Interpret absolute value in mathematics and real-world situations.

Learning Activities:

- Problem Solving Reading Math
- Math and Science Activity: "The Second Highest Mountain", "Mount McKinley" and "Seismographs"
- Center Games: "Think Together" and "Teamwork"

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks

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- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

Next Generation Science Standards

MS-ESS3-3 Earth and Human Activity

Apply scientific principles to design a method for monitoring and minimizing human impact on the environment

MS-ETS1-1

Includes defining design problems, evaluating solutions, analyzing data to combine solutions, and developing models for iterative testing

MS-ETS1-2

Involves evaluating design solutions using a systematic process to determine how well they meet the problem's criteria and constraints.

Mathematical Practices

"Pick a Project" pages 67-68

1 - Make a Travel Brochure

2- Design a Connect the Dots Puzzle

3 - Record an Exercise Video

4 - Write Your Own Commercial

enVision Stem Project page 4

Task - How Might Engineers Been Involved in the Design and Improvement of Products

Engineering is the application of math and science to solve problems by designing and building products, materials, machinery, structures, transportation vehicles and many other items. Engineers work in nearly every area from chemical and electrical engineering to biomedical and oceanographic engineering.

Engineers find ways to improve and enhance performance of all kinds of products.

(cell phones, remote control for games, computer)

Engineers keep you healthy (blood pressure cuff, heart monitor, oxygen)

Engineers design equipment to keep you safe (bike helmet, air bag, and child car seat)

Career Readiness, Life Literacies, and Key Skills

9.4.12.CT.4 - Demonstrate creativity in generating ideas and solutions through brainstorming or innovative thinking.

9.4.12.TL.5 - Use technology to produce creative work such as videos, graphics, or presentations that demonstrate innovative thinking.

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9.4.12.CT.2 - Apply critical thinking strategies to solve complex problems and consider multiple solutions.

9.4.12.TL.2 - Use technology tools to analyze data, identify patterns and draw conclusions.

Technology Integration

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

9.4.12.CI.2: Communicate ideas clearly and effectively with reason using verbal, nonverbal, and digital communication techniques.

9.4.12.CT.3: Engage in discussions to clarify ideas, present opinions, and build on others' communication.

Time Frame	6 Weeks
Topic	
Ratio Concepts and Reasoning (EnVision 2.0 Topics 5 and 6)	
Alignment to Standards	
RATIOS and PROPORTIONAL RELATIONSHIPS 6.RP.A - Understand Ratio Concepts and Use Ratio Reasoning to Solve Problems 6.RP.A.1 Ratio Concepts - Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. 6.RP.A.2 Unit Rate Concepts - Understand the concept of a unit rate a/b associated with a ratio $a:b$ when b does not equal to zero, and use rate language in the context of a ratio relationship. 6.RP.A.3 Ratios and Rates - 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. 6.RP.A.3a Tables - 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.	

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6.RP.A.3b Solve Unit Rates - Solve unit rate problems including those involving unit pricing and constant speed.

6.RP.A.3c Percent of a Quantity - 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.RP.A.3d Ratio Reasoning - Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Learning Objectives and Activities

Topics 5 and 6 focus on conceptual understanding of ratios, rates, and percents and on solving problems involving ratio reasoning. When mathematical or real-world quantities have a relationship that can be stated as „for every x units of the first quantity there are y units of the second quantity,” this relationship can be described using a ratio. In a proportional relationship there are an infinite number of equivalent ratios.

SWBAT answer the following questions:

- What is a mathematical way to compare quantities?
- How can a diagram help you solve a ratio problem?
- How can you find equivalent ratios?
- How can you compare ratios to solve a problem?
- How can you use tables and graphs to show equivalent ratios?
- What is the rate?
- How can you find and use a unit rate to solve a problem?
- How can you use unit rates to make comparisons?
- How can you compare the prices of different amounts of the same item?
- How can you use unit rates to solve constant speed problems?
- How does percent relate to the whole?
- How are fractions, decimals, and percents related?
- How can you write a percent greater than 100 as a fraction and as a decimal?
- How can you use fractions to estimate percentages?
- How can you calculate percentages?
- How can you find the whole in a percent problem?

SWBAT demonstrate understanding of the following:

- A ratio is a mathematical way to compare quantities where for every x units of one quantity, there are y units of another quantity.
- Double number line diagrams can be used to represent terms in a ratio to solve real-world and mathematical problems.
- Ratio tables can be used to find equivalent ratios by multiplying or dividing both terms by the same nonzero number.
- Ratio tables and equivalent ratios can be used to compare two ratios.
- Equivalent ratios can be represented in a table, and the pairs of values can be plotted on a coordinate plane.
- A rate is a special type of ratio that compares two quantities with different units of measure.

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- A unit rate is a special rate that compares a quantity to one unit of another quantity.
- Rates are easily compared when they are expressed as unit rates.
- A type of unit rate, called a unit price can be used to find and compare the cost of items.
- Unit rates that relate distance and time can be used to solve problems involving constant speed.
- A percent is a rate in which the first term is compared to 100. The percent is a number of hundredths that represents the part of the whole.
- Fractions, decimals and percents are three ways to show parts of a whole.
- A percent greater than 100 is equivalent to more than the whole. A percent less than 1 is equivalent to less than 1100 of the whole.
- Equivalent fractions and compatible numbers can be used to estimate the percent of a number.
- Finding a percent of a whole is like finding a fractional part of a whole.
- Models and equations can be used to find the whole amount when the percent and part are known.

Learning Activities:

- Center Games: "Think Together", "Clip and Cover" and "Toss and Talk"
- Problem Solving Reading Mats
- Center Games: "Display the Digits"
- Math and Science Activity: "What is Earth Made of?", "Minerals of the Earth", "Gulf Stream", "Nutrition Facts" and "Small but Important Molecules" *

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks
- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

Science: MS-ESS1-3: When students are creating and comparing ratios they analyze and interpret data to determine scale properties of objects in the solar system.

MS-ESS3-1: Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

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"Pick a Project" Pages 265-266

1- Compare Costs of Pet Foods

2- Analyze a Sport Statistic - how fast pitchers throw a baseball versus yourself

3- Experiment with Combination of Colors

4 – Plan a Tour of a National Park

enVision STEM Activity page 262

"Get Into Gear" Students explore gear ratios by determining the number of turns each gear in a pair will make based on the number of teeth each gear has. Use the engineering design process to design a set of gears for a bicycle considering incline of terrain.

What's the Math? Students will examine sample pairings of gears and write gear ratios. Use ratios to determine pairings of gears for maximum efficiency when designing gears for specific terrain.

What's the Science? Students engage in the first steps of the engineering design process by developing multiple solutions and explain how they will function given the constraints of the terrain near their home.

Next Generation Science

MS-LS2 Ecosystems: Interactions, Energy and Dynamics

Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

MS-ESS3 Human Impact on the Environment

Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment

MS-ETS1-1 Science

Develop a model to generate data for iterative testing and modifications of a proposed object, tool, or process such that an optimal design can be achieved.

MS-ETS1-2 Engineering Design

Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

enVision 2.0 STEM Activity

"Engineering to Prevent Extinction" page 342

In this project, students explore the impact humans have on the environment as they research and identify ways in which engineers can help prevent the extinction of animal species.

What's the Math? Students think critically as they research threatened species and identify ways to help prevent the extinction of these species. Students will relate fractions, decimals, and percents as they explore data on endangered animal species.

What's the Science? Students engage in the first steps of the engineering design process by defining a problem and conducting research. They recognize the importance of maintaining animal habitats and evaluate plans to help attain that goal.

What's the Engineering and Technology?

Students continue to explore what engineers do and the wide variety of areas in which engineers work. They work on the first steps of the engineering design process as they undertake research and identify ways that engineers help prevent extinction.

Materials engineers develop wood alternatives to help save animals. Agricultural engineers develop environmentally friendly farming techniques to preserve different animal species.

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Career Readiness, Life Literacies, and Key Skills

In the context of enVision Math Grade 6, students encounter activities or problems that involve:

- Comparing unit prices for different sizes of the same product
- Calculating the cost per item to determine the best deal
- Comparing prices at different stores for the same product
- Understanding how comparison shopping can help save money

9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities and utility for accomplishing a specified task

9.4.12.TL.4: Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem.

9.4.12.CI.3: Investigate new challenges and opportunities for personal growth, advancement and transition

9.1.8.EG.1: Explain how taxes affect disposable income and the difference between net and gross income

9.1.8.EG.2: Explain why various sources of income are taxed differently.

9.1.8.PB.4: Construct a simple personal savings and spending plan based on various sources of income and different stages of life (e.g. teenager, young adult, family).

9.1.8.CDM.2: Demonstrate an understanding of the terminology associated with different types of credit (e.g., credit cards, installment loans, mortgages, lines of credit) and compare and calculate the interest rates associated with each.

9.1.8.RM.1: Determine criteria for deciding the amount of insurance protection needed.

9.2.12.CAP.3: Investigate how continuing education contributes to one's career and personal growth.

Technology Integration

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem. .
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

9.4.12.CI.2 - Communicate ideas clearly and effectively using verbal, nonverbal, and digital communication techniques

9.4.12.CT - Engage in discussions to clarify ideas, present opinions, and build on others' contributions

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Time Frame	7 Weeks
Topic	
Geometry (EnVision 2.0 Topic 7)	
Alignment to Standards	
6.G.A Solve Real-world and Mathematical Problems Involving Area, Surface Area, and Volume 6.G.A.1 - Area of Triangles, Quadrilaterals and Polygons - Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. 6.G.A.2 - Volume - 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 $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real world and mathematical problems. 6.G.A.3 - Polygons in the Coordinate Plane - 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. 6.G.A.4 - Three-Dimensional Figures - Represent three-dimensional figures (e.g., pyramid, triangular prism, rectangular prism) 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.	
Learning Objectives and Activities	
Topic 7 focuses on a deep understanding of area of polygons, surface area of solids and volume of right rectangular prisms with fractional side lengths. The conceptual underpinnings that provide cohesion of the content include the idea that some attributes of objects are measurable and can be quantified using unit amounts. SWBAT answer the following questions: • How can you use the formula for the area of a rectangle to find the area formula of a parallelogram? • How can you find the area of a triangle? • How can you find the areas of special quadrilaterals? • How can you find the areas of polygons? • How can you find the area of a polygon on the coordinate plane? • How do you classify solids? • How can you find the surface area of a prism? • How can you find the surface area of a pyramid?	

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- How can you find the volume of a rectangular prism with fractional edge lengths?

SWBAT demonstrate understanding of the following:

- The formula for the area of parallelogram, $A=bh$, can be derived from the formula for the area of a rectangle.
- The formula for the area of a triangle, $A=\frac{1}{2}bh$, can be derived from the formula for the area of a parallelogram.
- The areas of special quadrilaterals can be found by decomposing the quadrilaterals into shapes for which area formulas are known.
- The areas of polygons can be found by composing or decomposing the polygons into shapes for which the area formulas are known.
- The area of a polygon on a coordinate plane can be found by decomposing the polygon into shapes for which the area formulas are known.
- A net can be used to represent a polyhedron.
- The surface area of a prism is the sum of the areas of its faces.
- The surface area of a pyramid is the sum of the areas of its faces.
- Unit cubes or formulas can be used to find the volume of rectangular prisms and cubes.

Learning Activities:

- Center Games: "Toss and Talk" and "Teamwork"
- Problem Solving Reading Mats
- Math and Science Activity: "Rainwater Harvesting", "Floodplain Cultivation", "Greenhouses" and "Cell Surface Area and Volume"

Assessments

Formative:

- Rich Thinking Tasks
- Classroom Observation
- Student Reflections and Math Talks
- Targeted Practice via IXL

Summative:

- Mid-unit Quizzes
- Topic Tests
- Performance Tasks/Projects

Alternative:

- NJSLA Released Problems

Interdisciplinary Connections

enVision 2.0 Mathematics

Next Generation Science Standards

MS-ETS1-1 Engineering Design Requires students to define design problems with precise criteria and constraints, including scientific knowledge, to ensure a successful solution.

MS-ETS1-2 Engineering Design Involves evaluating design solutions using a systematic process to

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determine how well they meet the problem's criteria and constraints

MS-ETS1-3 Engineering Design Involved analyzing test data to identify similarities and differences among design solutions, combining best characteristics into a new solution.

MS-ETS1-4 Engineering Design Involves developing a model to generate data for iterative testing and modification to achieve an optimal design.

"Pick a Project" pages 399-400

1- If you could pick a shape of a building, what would it be and why?

Compare cube-shaped buildings

2- Draw Nets of Number Cubes

3- Calculate the Amount of Gift Wrap (rolls)

4- What kind of music do you like? Write a rap battle

STEM Activity "Pack It" page 396

In this project, students explore how engineers design food packaging. They will use the engineering design process to develop packaging for food while considering constraints such as dimensions or materials.

What's the Math? Students use geometry to determine how the volume of the packaging relates to the volume of the food item being packed. Students will use nets to illustrate possible solutions to the task.

What's the Science?

Students apply the engineering design process to find possible solutions to the task. They identify and research the problem, develop and evaluate possible solutions and redesign as needed.

What's the Engineering and Technology?

Students think like an engineer and apply the engineering design process as they work toward a proposed solution. The solution may require implementation of established or innovative technologies.

Alternate Activity

Science: MS-PS2-2: Students will plan an investigation to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the mass of the object.

ELA: W.6.1: When students are justifying their reasoning on short answer and extended constructed response questions they write arguments to support claims with clear reasons and relevant evidence.

Career Readiness, Life Literacies, and Key Skills

9.4.12.CI.1 Demonstrate the ability to reflect, revise and explain reasoning and decision-making when solving problems collaboratively.

9.4.8.CI.2 Collaborate with others to develop a solution using multiple perspectives.

Aligns with discussion, group presentations, or group project-based learning

9.4.8.CI.3 Use collaborative technologies to explore diverse viewpoints and generate ideas for solutions. Group problem-solving peer teaching, or inquiry based tasks.

9.4.12.CI.2 Critically analyze ideas within and between groups to ensure productive collaboration.

Encourages meaningful group work with clear roles and outcomes.

Technology Integration

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All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaboratively and to create and communicate knowledge.

- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
- 9.4.8.TL.3: Select appropriate tools to organize and present information digitally.
- 9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems.
- 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

Career Education

CRP2: Apply appropriate academic and technical skills.

CRP8: Utilize critical thinking to make sense of problems and persevere in solving them.

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Modifications (ELL, Special Education, At-Risk Students, Gifted & Talented, & 504 Plans)

ELL:

- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

Supports for Students With IEPs:

- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

At-Risk Students:

- Guided notes and/or scaffold outline for written assignments
- Introduce key vocabulary before lesson
- Work in a small group
- Lesson taught again using a differentiated approach
- Allow answers to be given orally or dictated
- Use visuals / Anchor Charts
- Leveled texts according to ability

Gifted and Talented:

- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Organize and offer flexible small group learning activities
- Provide whole group enrichment explorations
- Teach cognitive and methodological skills
- Use center, stations, or contracts
- Organize integrated problem-solving simulations
- Propose interest-based extension activities
- Expose students to beyond level texts.

Supports for Students With 504 Plans:

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- Follow all the 504 plan modifications
- Text to speech/audio recorded selections
- Amplification system as needed
- Leveled texts according to ability
- Fine motor skill stations embedded in rotation as needed
- Modified or constrained spelling word lists
- Provide anchor charts with high frequency words and phonemic patterns

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