CKSD Curriculum
Algebraic Reasoning
EnVision Mathematics 7th Grade
Suggested Length of Unit – __18___ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Algebraic Reasoning – focuses on the properties of arithmetic and properties of equality and writing and solving equations to solve problems

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Major Academic Standards Addressed

- M07AN11 Solve real-world and mathematical problems involving the four operations with rational numbers
- M07BE11 Use properties of operations to generate equivalent expressions
- M07BE22 Use variables to represent quantities in a real-world or mathematical problem and construct simple equations and inequalities to solve problems

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Concepts – Content ——**What students should know**

- Arithmetic Operations
- Numerical Expressions
- Solving 1-step Equations

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Solve real-world and mathematical problems involving the four operations with rational numbers
- Apply properties of operations to generate equivalent expressions
- Model and solve real world and mathematical problems using multiple representations such as algebraic, graphical and using tables

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Essential Questions – meant to challenge study to ponder, question and query

- How can mathematics support effective communication?
- How are relationships represented mathematically?
- How can expressions, equations and inequalities be used to quantify, solve model and/or analyze mathematical situations?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Integers & Rational Numbers
EnVision Mathematics 7th Grade
Suggested Length of Unit – __10___ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Integers and Rational Numbers – focuses on the set of Integers, the arithmetic operations performed within the set and solving equations with Integers; plus relationships between fractions and decimals

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Major Academic Standards Addressed

- M07AN11 Solve real-world and mathematical problems involving the four operations with rational numbers
- M07BE11 Use properties of operations to generate equivalent expressions
- M07BE21 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers

Concepts – Content ——**What students should know**

- Arithmetic Operations
- Order of Operations
- Simplification of Algebraic Expressions
- Solving 1-step Equations

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Solve real-world and mathematical problems involving the four operations with rational numbers
- Apply properties of operations to generate equivalent expressions
- Solve and interpret multi-step real life and mathematical problems posed with positive and negative numbers

Essential Questions – meant to challenge study to ponder, question and query

- How are relationships represented mathematically?
- How can expressions and equations be used to quantify, solve, model and/or analyze mathematical situations?
- How is mathematics used to quantify, compare, represent and model numbers?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions

- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Applying Rational Numbers
EnVision Mathematics 7th Grade
Suggested Length of Unit – __9___ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Applying Rational Numbers – focuses on the set of Rational Numbers, the arithmetic operations performed within the set and solving equations containing Rational Numbers

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Major Academic Standards Addressed

- M07AN11 Solve real-world and mathematical problems involving the four operations with rational numbers
- M07BE11 Use properties of operations to generate equivalent expressions
- M07BE21 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers

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Concepts – Content ——**What students should know**

- Integer Operations
- Order of Operations
- Solving 1-step Equations
- Fraction and Decimal Relationships

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Solve real-world and mathematical problems involving the four operations with rational numbers
- Apply properties of operations to generate equivalent expressions
- Solve and interpret multi-step real life and mathematical problems posed with positive and negative numbers

---

Essential Questions – meant to challenge study to ponder, question and query

- How are relationships represented mathematically?
- How can expressions and equations be used to quantify, solve, model and/or analyze mathematical situations?
- How is mathematics used to quantify, compare, represent and model numbers?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Equations & Inequalities
EnVision Mathematics 7th Grade
Suggested Length of Unit – __17___ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Multi-Step Equations and Inequalities – focuses on linear equations and inequalities in one variable and choosing procedures to solve these equations and inequalities efficiently

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Major Academic Standards Addressed

- M07AN11 Solve real-world and mathematical problems involving the four operations with rational numbers
- M07BE11 Use properties of operations to generate equivalent expressions
- M07BE22 Use variables to represent quantities in a real-world or mathematical problem and construct simple equations and inequalities to solve problems

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Concepts – Content ——**What students should know**

- Solve 1-step Equations
- Simplify Algebraic Expressions
- Operations with Rational Numbers
- Comparing Values

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Apply properties of operations to generate equivalent expressions
- Model and solve real world and mathematical problems using multiple representations such as algebraic, graphical and using tables
- Solve multi-step equations or inequalities with one variable

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Essential Questions – meant to challenge study to ponder, question and query

- How are relationships represented mathematically?
- How can expressions, equations and inequalities be used to quantify, solve, model and/or analyze mathematical situations?
- How is mathematics used to quantify, compare, represent and model numbers?
- How can data be organized and represented to provide insight into the relationship between quantities?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Proportional Relationships
EnVision Mathematics 7th Grade
Suggested Length of Unit – __14___ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Proportional Relationships – focuses on using proportionality to solve problems including ratios, rates, unit rates, similar objects and scale drawings

Major Academic Standards Addressed

- M07AR11 Analyze, recognize and represent proportional relationships and use them to solve real-world and mathematical problems
- M07BE23 Determine the reasonableness of the answer in problem-solving situations
- M07CG11 Describe and apply properties of geometric figures

Concepts – Content ——**What students should know**

- Equivalent Fractions
- Simplifying Fractions
- Operations with Fractions

- Solving Equations

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Compute unit rates associated with ratios of fractions
- Recognize and represent proportional relationships between quantities
- Use proportional relationships to solve multi-step ratio problems
- Solve problems involving scale drawings of geometric figures

Essential Questions – meant to challenge study to ponder, question and query

- How is mathematics used to quantify, compare, represent and model numbers?
- How are relationships represented mathematically?
- How can data be organized and represented to provide insight into the relationship between quantities?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Directly Proportional Relationships
EnVision Mathematics 7th Grade

Suggested Length of Unit – __7___ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Directly Proportional Relationships – focuses on analyzing directly proportional relationships through charts, graphs and equations

Major Academic Standards Addressed

- M07AR11 Analyze, recognize and represent proportional relationships and use them to solve real-world and mathematical problems
- M07BE23 Determine the reasonableness of the answer in problem-solving situations

Concepts – Content ——**What students should know**

- Solving Proportions
- Calculating Unit Rates
- Interpret and Read a Graph in Quadrant 1
- Reading a chart
- Solving Equations

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Recognize and represent proportional relationships between quantities
- Model and solve real world and mathematical problems using multiple representations such as algebraic, graphical and using tables

Essential Questions – meant to challenge study to ponder, question and query

- How is mathematics used to quantify, compare, represent and model numbers?
- How are relationships represented mathematically?
- How can recognizing repetition or regularity assist in solving problems more efficiently?
- How can data be organized and represented to provide insight into the relationship between quantities?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Percents
EnVision Mathematics 7th Grade
Suggested Length of Unit – __14__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Percents and Percent Applications– focuses on modeling percents; writing equivalent fractions, decimals and percents; and solving percent problems involving discounts, tips, sales tax, and mark-ups (profit)

Major Academic Standards Addressed

- M07AR11 Analyze, recognize and represent proportional relationships and use them to solve real-world and mathematical problems
- M07BE21 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers

Concepts – Content ——**What students should know**

- Convert fractions and decimals to equivalent forms
- Solve 1-step equations involving multiplication and division
- Solving proportions
- Calculating Unit Rates

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Recognize and represent proportional relationships between quantities
- Use proportional relationships to solve multi-step ratio and percent problems

Essential Questions – meant to challenge study to ponder, question and query

- How is mathematics used to quantify, compare, represent and model numbers?
- How can expressions, equations and inequalities be used to quantify, solve, model and/or analyze mathematical situations?
- How are relationships represented mathematically?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Multi-Step Percent Applications
EnVision Mathematics 7th Grade
Suggested Length of Unit – __5__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Multi-Step Percent Applications – focuses on percent applications that involve percent of change, simple interest, and multi-step strategies

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Major Academic Standards Addressed

- M07AR11 Analyze, recognize and represent proportional relationships and use them to solve real-world and mathematical problems
- M07BE21 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers

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Concepts – Content ——**What students should know**

- Solving Percent Problems
- Solve 1-step equations involving multiplication and division
- Solving proportions
- Calculating Unit Rates

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Recognize and represent proportional relationships between quantities
- Use proportional relationships to solve multi-step ratio and percent problems
- Solve and interpret multi-step real life and mathematical problems posed with positive and negative rational numbers

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Essential Questions – meant to challenge study to ponder, question and query

- How is mathematics used to quantify, compare, represent and model numbers?
- How can expressions, equations and inequalities be used to quantify, solve, model and/or analyze mathematical situations?
- How are relationships represented mathematically?

- What does it mean to estimate or analyze numerical quantities?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Statistical Data
EnVision Mathematics 7th Grade
Suggested Length of Unit – __15__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Collecting, Displaying and Analyzing Data - focuses on samples and analyzing statistical data relating to Mean Absolute Deviation and Box and Whisker Plots

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Major Academic Standards Addressed

- M07DS11 Use random Samples
- M07DS21 Use statistical measures to compare two numerical data distributions

Concepts – Content ——**What students should know**

- Calculate mean, median, mode and range
- Interpreting and analyzing graphs
- estimation

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Draw inferences about two populations based on random sampling concepts
- Determine and approximate relative frequencies and probabilities of events
- Draw informal comparative inferences about two populations using measures of center and measures of variability

Essential Questions – meant to challenge study to ponder, question and query

- What does it mean to estimate or analyze numerical quantities?
- How can data be organized and represented to provide insight into the relationship between quantities?
- How does the type of data influence the choice of display?
- How can probability and data analysis be used to make predictions?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities

- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Probability
EnVision Mathematics 7th Grade
Suggested Length of Unit – __14__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Probability – focuses on the different types of probability and its applications

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Major Academic Standards Addressed

- M07DS11 Use random Samples
- M07DS31 Predict or determine the likelihood of outcomes
- M07DS22 Use probability to predict outcomes

Concepts – Content ——**What students should know**

- Create and compare ratios
- Solve proportions
- Convert fractions and decimals to equivalent forms

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Find probabilities of independent compound events
- Predict the approximate relative frequency given the probability
- Find the probability of a simple event, including the probability of a simple event not occurring

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Essential Questions – meant to challenge study to ponder, question and query

- In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted?
- How can probability and data analysis be used to make predictions?

- How can data be organized and represented to provide insight into the relationship between quantities?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Factoring
EnVision Mathematics 7th Grade
Suggested Length of Unit – __5__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- GCF and Distributive Property - focuses on the use of the Greatest Common Factor to factor and simplify algebraic expressions

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Major Academic Standards Addressed

- M07BE11 Use properties of operations to generate equivalent expressions

Concepts – Content ——**What students should know**

- Number Properties
- Simplify algebraic expressions be combining like terms
- Operations with Rational Numbers

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Apply properties of operations to generate equivalent expressions
- Solve and interpret multi-step real life and mathematical problems posed with positive and negative rational numbers

Essential Questions – meant to challenge study to ponder, question and query

- How is mathematics used to quantify, compare, represent, and model numbers?
- How are relationships represented mathematically?
- How can expressions, equations and inequalities be used to quantify, solve, model and/or analyze mathematical situations?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- Nearpod activities

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

PSSA Review
EnVision Mathematics 7th Grade
Suggested Length of Unit – __15__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- PSSA Review – focuses on reviewing the major standards and eligible content related to the 7th grade PSSA test including The Number System, Ratios and Proportional Relationships, Expressions and Equations, Geometry, and Statistics and Probability

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Major Academic Standards Addressed

- M07AN11 Solve real-world and mathematical problems involving the four operations with rational numbers
- M07AR11 Analyze, recognize and represent proportional relationships and use them to solve real-world and mathematical problems
- M07BE11 Use properties of operations to generate equivalent expressions
- M07BE21 Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers
- M07BE22 Use variables to represent quantities in a real-world or mathematical problem and construct simple equations and inequalities to solve problems
- M07BE23 Determine the reasonableness of the answer in problem-solving situations
- M07CG11 Describe and apply properties of geometric figures
- M07CG21 Identify, use and describe properties of angles and their measures
- M07CG22 Determine circumference, area, surface area and volume
- M07DS11 Use random samples
- M07DS21 Use statistical measures to compare two numerical data distributions
- M07DS31 Predict or determine the likelihood of outcomes
- M07DS32 Use probability to predict outcomes

Concepts – Content ——**What students should know**

- Operations with rational numbers
- Solving equations and inequalities
- Simplifying algebraic expressions

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Compute unit rates associated with ratios of fractions
- Recognize and represent proportional relationships between quantities
- Use proportional relationships to solve multi-step ratio and percent problems
- Solve real-world and mathematical problems involving the four operations with rational numbers
- Apply properties of operations to generate equivalent expressions
- Mode and solve real world and mathematical problems using multiple representations such as algebraic, graphical and using tables
- Solve multi-step equations or inequalities with one variable
- Solve problems involving area and circumference of a circle
- Solve mathematical problems involving area, volume and surface are of two-and-three dimensional objects
- Solve problems involving scale drawings of geometric figures
- Describe the two-dimensional figures that result from slicing thre-dimensional figures
- Draw inferences about two populations based on random sampling concepts
- Determine and approximate relative frequencies and probabilities of events
- Draw informal comparative inferences about two populations using measures of center and measures of variability
- Find probabilities of independent compound events
- Predict the approximate relative frequency given the probability
- Find the probability of a simple event, including the probability of a simple event not occurring

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Essential Questions – meant to challenge study to ponder, question and query

- How is mathematics used to quantify, compare, represent and model numbers?
- How are relationships represented mathematically?
- How can expressions, equations and inequalities be used to quantify, solve, model and/or analyze mathematical situations?
- How can data be organized and represented to provide insight into the relationship between quantities?
- How does the type of data influence the choice of display?
- How can probability and data analysis be used to make predictions?
- How can geometric properties and theorems be used to describe, model and analyze situations?
- How are spatial relationships, including shape and dimension, used to draw, construct, model and represent real situations or solve problems?
- How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes

- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- PollEv.com activities
- Nearpod activities
- Chapter Test

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms
- PSSA Sample Packets

CKSD Curriculum
Graphs and Functions
EnVision Mathematics 7th Grade
Suggested Length of Unit – __12__ Days
Instructor: Stefanie W. Ritchey

Unit title and short description

- Graphs and Functions – focuses on graphs of linear relationships and analyzing and identifying the slope of a line

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Major Academic Standards Addressed

- M08BE21 Analyze and describe linear relationships between two variables, using slope
- M08BF11 Define, evaluate and compare functions displayed algebraically, graphically or numerically in tables or by verbal descriptions
- M08BF21 Represent or interpret functional relationships between quantities using tables, graphs and descriptions

Concepts – Content ——**What students should know**

- Graph ordered pairs on the xy coordinate play
- Interpret graphs of proportional relationships

Objectives – also called competencies in the SAS

What students should be able to do as a result of the instruction

- Analyze and describe linear relationships between two variables, using slope
- Make connections between slope, line and linear equations
- Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or table of values

Essential Questions – meant to challenge study to ponder, question and query

- How are relationships represented mathematically?
- How can data be organized and represented to provide insight into the relationship between quantities?
- How is mathematics used to quantify, compare, represent and model numbers?
- How can probability and data analysis be used to make predictions?

Assessments- Assessments should be directly related to the objectives identified for students in this unit.

- Quizzes
- Classwork/Groupwork
- Kahoot Live Sessions
- Study Island Live Sessions
- Linear Graph Project and Activity

Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*

- Pair/share activities
- Guided Practice
- Individual and groupwork using white boards or Sketches app on iPad
- Discovery/investigative activities
- Kahoot activities & Kahoot Live Sessions
- Study Island activities & Study Island Live Sessions
- PollEv.com activities
- Blooket, IXL, Quizlet & other on-line technology platforms

CKSD Curriculum
Unit Template
Course/Subject/Grade Level?
Suggested Length of Unit – _____ Days
Instructor:

Unit title and short description

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Major Academic Standards Addressed

Concepts – Content ——**What students should know**

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Objectives – also called competencies in the SAS
What students should be able to do as a result of the instruction

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Essential Questions – meant to challenge study to ponder, question and query

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Assessments- Assessments should be directly related to the objectives identified for students in this unit.

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Best Instructional Practice(s): *Describe what you believe are the best instructional approaches you would employ in order to help students obtain proficiency on the standards identified in the unit. Develop this descriptor so that a student could understand the process. This can be a narrative.*