

Curriculum Map: Third Grade-2019

Course: Math 3 Sub-topic: General

Grade(s): None specified

Course *Students at this level will exhibit the following:*

Description:

Make sense of problems and persevere in solving them

- Know that doing mathematics involves solving problems and discussing how they solved them
- Explain to themselves the meaning of a problem and look for ways to solve it
- Use concrete objects or pictures to help them conceptualized and solve problems
- Check their thinking by asking themselves "Does this make sense?"
- Listen to the strategies of others and will try different approaches
- Use another method to check their answers

Reason abstractly and quantitatively

- Recognize that a number represents a specific quantity
- Connect the quantity to written symbols and create a logical representation of the problem at hand, considering both the appropriate units involved and the meaning of quantities

Construct viable arguments and critique the reasoning of others

- Construct arguments using concrete referents, such as objects, pictures and drawings
- Refine their mathematical communication skills as they participate in mathematical discussions involving questions, like "How did you get that?" and "Why is that true?"
- Explain their thinking to others and respond to others' thinking

Model with mathematics

- Experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart, list, or graph, creating equations, etc.
- Need opportunities to connect the different representations and explain the connections
- Use all of these representations as needed
- Evaluate their results in the context of the situation and reflect on whether the results make sense

Use appropriate tools strategically

- Consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful
- Use graph paper to find all the possible rectangles that have a given perimeter
- Compile the possibilities into an organized list or a table, and determine whether they have all the possible rectangles

Attend to precision

- Develop their mathematical communication skills
- Use clear and precise language in their discussions with others and in their own reasoning
- Specify units of measure and state the meaning of the symbols they choose. For instance, when figuring out the area of a rectangle they record their answers in square units

Look for and make use of structure

- Look closely to discover a pattern or structure
- Use properties of operations as strategies to multiply and divide (commutative and distributive properties)

Look for and express regularity in repeated reasoning

- Notice repetitive actions in computation and look for more shortcut methods
- Use the distributive property as a strategy for using products they know to solve

products that they don't know. For example, if students are asked to find the product of 7×8 they might decompose 7 into 5 and 2 then multiply 5×8 and 2×8 to arrive at $40 + 16$ or 56

- Continually evaluate their work by asking themselves, "Does this make sense?"

Unit: Place Value and Properties of Operations

Month: September- 16 days

- Skills:**
1. Perform multi-digit arithmetic
 2. Demonstrate fluency of addition and subtraction
 3. Round whole numbers to the nearest ten or hundred

- Essential Questions:**
1. How is mathematics used to quantify, compare, represent, and model numbers?
 2. How can mathematics support effective communications?
 3. How are relationships represented mathematically?
 4. What does it mean to estimate or analyze numerical quantities?
 5. What makes a tool and/or strategy appropriate for a given task?
 6. How can patterns be used to describe relationships in mathematical situations?

- Content:**
1. Mathematical relationships among numbers can be represented, compared, and communicated.
 2. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations.
 3. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
 4. Patterns exhibit relationships that can be extended, described and generalized.

Vocabulary:

Area

Denominator

Division

Equivalent fractions

Estimate

Fraction

Linear

Liquid Volume

Mass

Numerator

Pattern
Pentagon
Perimeter
Pictograph
Polygon
Quadrilateral
Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.3.B.1](#)
(Advanced) Apply place-value understanding and properties of operations to perform multi-digit arithmetic.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.A-T.1.1.1](#)
(Advanced) Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.

Alternate Eligible Content Code M03AT1.1.1a: Round a two-digit number to the nearest ten

[M03.A-T.1.1.2](#)
(Advanced) Add two- and three-digit whole numbers (limit sums from 100 through 1,000) and/or subtract two- and three-digit numbers from three-digit whole numbers.

Alternate Eligible Content Code M03AT1.1.2a: Demonstrate understanding of addition with small sets M03AT1.1.2b: Demonstrate understanding subtraction with small sets

[M03.A-T.1.1.3](#)
(Advanced) Multiply one-digit whole numbers by two-digit multiples of 10 (from 10 through 90).

[M03.A-T.1.1.4](#)
(Advanced) Order a set of whole numbers from least to greatest or greatest to least (up through 9,999, and limit sets to no more than four numbers).

Alternate Eligible Content Code M03AT1.1.4a: Order 3 numbers under 10

(* standards consolidated from Topic level)

Topic: Lesson 1a- Number Patterns- E

Minutes for Topic: 60

Core Lesson
Description: Number Patterns

Core Lesson
Student Learning Objectives: The student will be able to explain patterns on the addition table.

Core Lesson
Essential Questions: How can you use patterns to explain properties on the addition table?-E

Core Lesson Materials: Go Math 1.1

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.3.B.1 \(Advanced\)](#) Apply place-value understanding and properties of operations to perform multi-digit arithmetic.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.A-T.1.1.1 \(Advanced\)](#) Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.

Alternate Eligible Content Code M03AT1.1.1a: Round a two-digit number to the nearest ten

[M03.A-T.1.1.2 \(Advanced\)](#) Add two- and three-digit whole numbers (limit sums from 100 through 1,000) and/or subtract two- and three-digit numbers from three-digit whole numbers.

Alternate Eligible Content Code M03AT1.1.2a: Demonstrate understanding of addition with small sets M03AT1.1.2b: Demonstrate understanding subtraction with small sets

[M03.A-T.1.1.3 \(Advanced\)](#) Multiply one-digit whole numbers by two-digit multiples of 10 (from 10 through 90).

[M03.A-T.1.1.4 \(Advanced\)](#) Order a set of whole numbers from least to greatest or greatest to least (up through 9,999, and limit sets to no more than four numbers).

Alternate Eligible Content Code M03AT1.1.4a: Order 3 numbers under 10

Topic: Lesson 2 & 3- Round to the Nearest Ten and Hundred- E

Minutes for Topic: 120

Core Lesson Description: Round to the nearest ten and hundreds

Core Lesson Student Learning Objectives: The student will be able to round numbers to the tens and hundreds place value.

Core Lesson Essential Questions: How can you round numbers? E

Topic: Lesson 4-Estimate Sums- E

Minutes for Topic: 60

Core Lesson Description: Estimate Sums

Core Lesson Student Learning Objectives: The student will be able to use compatible numbers and rounding to estimate sums.

Core Lesson Essential Questions: How can you use compatible numbers and rounding to estimate sums?- E

Topic: Lesson 5- Use Properties to Add- I

Minutes for Topic: 60

Core Lesson Description: Use Properties to Add

Core Lesson The student will be able to add more than addends.

Student Learning Objectives: The student will be able to use mental strategies to find sums.

Core Lesson Essential Questions: How can you add more than two addends?- I

Topic: Lesson 6- Distributive Property- C

Minutes for Topic: 60

Core Lesson Description: Use the Break Apart Strategy to Add Three-Digit Numbers

Core Lesson Student Learning Objectives: The student will be able to use place value to add three-digit numbers.
The student will be able to use the break apart strategy to add three-digit numbers.

Core Lesson Essential Questions: How can you use the break apart strategy to add 3- digit numbers?- C

Topic: Lesson 7- Place Value to Add- E

Minutes for Topic: 60

Core Lesson Description: Use Place Value to Add

Core Lesson Student Learning Objectives: The student will be able to use place value to add three-digit numbers.

Core Lesson Essential Questions: How can you use place value to add 3 digit numbers?- E

Topic: Lesson 8- Estimate Differences- E

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint
Estimate Differences

Core Lesson Student Learning Objectives: The student will be able to use compatible numbers and rounding to estimate differences.

Core Lesson Essential Questions: How can you use compatible numbers and rounding to estimate differences?- E

Topic: Lesson 9- Place Value to Subtract- E

Minutes for Topic: 60

Core Lesson Description: Use Place Value to Subtract

Core Lesson Student Learning Objectives: The student will be able to use place value to subtract three-digit numbers.

**Core Lesson
Essential
Questions:** How can you use place value to subtract 3 digit numbers?- E

Topic: Lesson 10 & 11- Combine Place Value to Subtract- E

Minutes for Topic: 120

**Core Lesson
Description:** Combine Place Value to Subtract

**Core Lesson
Student Learning
Objectives:** The student will be able to combine place value to subtract three-digit numbers.

**Core Lesson
Essential
Questions:** How can you use the combine values strategy to subtract 3 digit numbers?- E

Topic: Lesson 12- Problem Solving-C

Minutes for Topic: 60

**Core Lesson
Description:** Problem Solving
Model Addition and Subtraction

**Core Lesson
Student Learning
Objectives:** The student will be able to use the strategy draw a diagram to solve one- and two- step addition and subtraction problems.

**Core Lesson
Essential
Questions:** How can you use the strategy draw a diagram to solve one/two step addition and subtraction problems?- C

Topic: Lesson 13 & 14- Review

Minutes for Topic: 120

**Core Lesson
Description:** Chapter 1 Review

**Core Lesson
Student Learning
Objectives:** The student will be able to apply strategies taught throughout the chapter.

Topic: Lesson 15 & 16- Test

Minutes for Topic: 120

**Core Lesson
Description:** Chapter 1 Test

**Core Lesson
Student Learning
Objectives:** The student will be able to apply strategies taught throughout the chapter.

Topic: Lesson 1b- Compare and Order Numbers- I

Minutes for Topic: 60

**Core Lesson
Description:** Compare and Order Numbers to 10,000

**Core Lesson
Student Learning
Objectives:** The students will be able to compare and order numbers to 10,000.

Core Lesson Notes: During Intervention Block - Review Place Value to 10,000 and teach comparing and ordering.
This will take several of days during your intervention block with your homeroom.

Unit: Money (Coins and Bills) - INTERVENTION UNIT taught in conjunction with Place Value

Month: September- 7 days

- Skills:**
1. Solve problems
 2. Make estimations
 3. Make change using combination of coins and bills

- Essential Questions:**
1. What does it mean to estimate or analyze numerical quantities?
 2. When is it appropriate to estimate versus calculate?
 3. What makes a tool and/or strategy appropriate for a given task?
 4. How precise do measurements and calculations need to be?

- Content:**
1. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
 2. Measurement attributes can be quantified and estimated using customary and non-customary units of measure.

- Vocabulary:**
- Area
 - Denominator
 - Division
 - Equivalent fractions
 - Estimate
 - Fraction
 - Linear
 - Liquid Volume
 - Mass
 - Numerator
 - Pattern
 - Pentagon
 - Perimeter
 - Pictograph
 - Polygon
 - Quadrilateral
 - Rhombus

Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.3 \(Advanced\)](#) Solve problems and make change involving money using a combination of coins and bills.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.1.3.1 \(Advanced\)](#) Compare total values of combinations of coins (penny, nickel, dime, and quarter) and/or dollar bills less than \$5.00.

Alternate Eligible Content Code M03DM1.3.1a: Count money using coins or one-dollar bills

[M03.D-M.1.3.2 \(Advanced\)](#) Make change for an amount up to \$5.00 with no more than \$2.00 change given (penny, nickel, dime, quarter, and dollar).

[M03.D-M.1.3.3 \(Advanced\)](#) Round amounts of money to the nearest dollar.

(* standards consolidated from Topic level)

Topic: Lesson 17b-Count Coins and Bills- E

Minutes for Topic: 30

Core Lesson Description: Count Coins and Bills

Core Lesson

Student Learning Objectives: The student will be able to count, read, and write money amounts for groups of coins and bills.

Objectives:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.3 \(Advanced\)](#) Solve problems and make change involving money using a combination of coins and bills.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.1.3.1 \(Advanced\)](#) Compare total values of combinations of coins (penny, nickel, dime, and quarter) and/or dollar bills less than \$5.00.

Alternate Eligible Content Code M03DM1.3.1a: Count money using coins or one-dollar bills

[M03.D-M.1.3.2 \(Advanced\)](#) Make change for an amount up to \$5.00 with no more than \$2.00 change given (penny, nickel, dime, quarter, and dollar).

[M03.D-M.1.3.3 \(Advanced\)](#) Round amounts of money to the nearest dollar.

Topic: Lesson 18b- Compare money- E

Minutes for Topic: 30

Core Lesson Description: Compare Amounts of Money

Core Lesson

Student Learning Objectives: The student will be able to compare total values of collections of coins and bills.

Objectives:

Topic: Lesson 19b- Make a Table- C

Minutes for Topic: 30

Core Lesson Description: Make A Table

Core Lesson

Student Learning Objectives: The student will be able to use the strategy *make a table* to solve problems.

Objectives:

Topic: Lesson 20b- Make Change- E

Minutes for Topic: 30

Core Lesson Description: Make Change

Core Lesson

Student Learning Objectives: The student will be able to make change by counting on.

Objectives:

Topic: Lesson 21b- Add and Subtract Money- E

Minutes for Topic: 30

Core Lesson Description: Add and Subtract Money Amounts

Core Lesson

Student Learning Objectives: The student will be able to add and subtract money amounts.

Objectives: The student will be able to use bills and coins to make change.

Topic: Lesson 22b- Add and Subtract Money- E

Minutes for Topic: 30

Core Lesson Description: Add and Subtract Money Amounts

Core Lesson

Student Learning Objectives: The student will be able to add and subtract money amounts.

Objectives:

Topic: Lesson 23b- Round to the Nearest Dollar- E

Minutes for Topic: 30

Core Lesson Description: Round the Nearest Dollar

Core Lesson

Student Learning Objectives: The student will be able to round to the nearest dollar.

Objectives:

Unit: Data Displays

Month: October- 11 days

- Skills:**
1. Solve problems
 2. Make estimations
 3. Represent and interpret data using various displays

Essential Questions:

1. What does it mean to estimate or analyze numerical quantities? E
2. When is it appropriate to estimate versus calculate? E
3. How can data be organized and represented to provide insight into the relationship between quantities? E
4. How does the type of data influence the choice of display? E
5. How can probability and data analysis be used to make predictions? I
6. What makes a tool and/or strategy appropriate for a given task? E

Content:

1. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
2. Mathematical relations and functions can be modeled through multiple representations and analyzed to raise and answer questions.
3. Data can be modeled and used to make inferences.

Vocabulary:

Area
Denominator
Division
Equivalent fractions
Estimate
Fraction
Linear
Liquid Volume
Mass
Numerator
Pattern
Pentagon
Perimeter
Pictograph
Polygon
Quadrilateral
Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.4 \(Advanced\)](#) Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.2.1.1 \(Advanced\)](#) Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to 1, 2, 5, and 10).

Alternate Eligible Content Code M03DM2.1.1a: Add information to a pictograph, line plot, or bar graph

[M03.D-M.2.1.2 \(Advanced\)](#) Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10). Example 1: (One-step) "Which category is the largest?" Example 2: (Two-step) "How many more are in category A than in category B?"

[M03.D-M.2.1.3 \(Advanced\)](#) Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units—whole numbers, halves, or quarters.

[M03.D-M.2.1.4 \(Advanced\)](#) Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables. Example: Convert a tally chart to a bar graph.

(* standards consolidated from Topic level)

Topic: Lesson 17a- Organize Data- I

Minutes for Topic: 60

Core Lesson Description: Problem Solving - Organize Data

Core Lesson Student Learning Objectives: The student will be able to use the strategy *make a table* to organize data and solve problems.

Core Lesson Essential Questions: How can you use the strategy make a table to organize data and solve problems?- I

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.4 \(Advanced\)](#) Represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.2.1.1 \(Advanced\)](#) Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories (scales limited to 1, 2, 5, and 10).

Alternate Eligible Content Code M03DM2.1.1a: Add information to a pictograph, line plot, or bar graph

[M03.D-M.2.1.2 \(Advanced\)](#) Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs (scales limited to 1, 2, 5, and 10). Example 1: (One-step) "Which category is the largest?" Example 2: (Two-step) "How many more are in category A than in category B?"

[M03.D-M.2.1.3 \(Advanced\)](#) Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units—whole numbers, halves, or quarters.

[M03.D-M.2.1.4 \(Advanced\)](#) Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables. Example: Convert a tally chart to a bar graph.

Topic: Lesson 18a- Picture Graphs- E

Minutes for Topic: 60

Core Lesson Description: Use Picture Graphs

Core Lesson Student Learning Objectives: The student will be able to read and interpret data in a picture graph.

Core Lesson Essential Questions: How can you read and interpret data in a picture graph?- E

Topic: Lesson 19a- Picture Graph- I

Minutes for Topic: 60

Core Lesson Description: Make a Picture Graph

Core Lesson Student Learning Objectives: The student will be able to draw a picture graph to show data in a table.

Core Lesson Essential Questions: How can you draw a picture graph to show data in a table?- I

Topic: Lesson 20a- Mid-Chapter

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint
Use Bar Graphs

Core Lesson Student Learning Objectives: The student will be able to apply strategies learned throughout the chapter.
The student will be able to read and interpret data in a bar graph.

Core Lesson Essential Questions: How can you read and interpret data in a bar graph?- E

Topic: Lesson 21a- Bar Graphs- I

Minutes for Topic: 60

Core Lesson Description: Make Bar Graphs

Core Lesson Student Learning Objectives: The student will be able to draw a bar graph to show data in a table or picture graph.

Core Lesson Essential Questions: How can you draw a bar graph to show data in a table or picture graph?- I

Topic: Lesson 22a- Problem Solving- E

Minutes for Topic: 60

Core Lesson Description: Solve Problems Using Data

Core Lesson Student Learning Objectives: The student will be able to solve problems using data represented in bar graphs.

Core Lesson Essential Questions: How can you solve problems using data represented in bar graphs?- E

Topic: Lesson 23a- Line Plots- E

Minutes for Topic: 60

Core Lesson Description: Use and Make Line Plots

Core Lesson Student Learning Objectives: The student will be able to read and interpret data in a line plot and use data to make a line plot.

Core Lesson Essential Questions: How can you read and interpret data in a line plot and use data to make a line plot?- E

Topic: Lesson 24a & 25- Review

Minutes for Topic: 120

Core Lesson Description: Chapter 2 Review/Test

Core Lesson Student Learning Objectives: The student will be able to apply strategies taught throughout the chapter.

Topic: Lesson 26 & 27- Test

Minutes for Topic: 120

Core Lesson Description: Chapter 2 Test

Core Lesson Student Learning Objectives: The student will be able to apply strategies taught throughout the chapter.

Unit: Patterns

Month: September-1 day

Skills:

1. Represent and solve problems
2. Identify and explain patterns in arithmetic (including addition and subtraction)

Essential Questions:

1. How is mathematics used to quantify, compare, represent and model numbers?
2. How can mathematics support effective communication?
3. How can patterns be used to describe relationships in mathematical situations?
4. How can recognizing repetition or regularity assist in solving problems more efficiently?

5. How can data be organized and represented to provide insight into the relationship between quantities?
6. How can probability and data analysis be used to make predictions?

Content:

1. Mathematical relationships among numbers can be represented, compared, and communicated.
2. Patterns exhibit relationships that can be extended, described and generalized.
3. Mathematical relations and functions can be modeled through multiple representations and analyzed to raise and answer questions.
4. Data can be modeled and used to make inferences.

Vocabulary:

Area
Denominator
Division
Equivalent fractions
Estimate
Fraction
Linear
Liquid Volume
Mass
Numerator
Pattern
Pentagon
Perimeter
Pictograph
Polygon
Quadrilateral
Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.3.A.4](#) (Advanced) Solve problems involving the four operations, and identify and explain patterns in arithmetic.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.B-O.3.1.1](#) (Advanced) Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems

with whole numbers and having whole-number answers.

Alternate Eligible Content Code M03BO3.1.1a: Solve a 1-step real-world problem involving numbers under 10 using addition or subtraction

[M03.B-O.3.1.2 \(Advanced\)](#)

Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.

[M03.B-O.3.1.3 \(Advanced\)](#)

Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.

[M03.B-O.3.1.4 \(Advanced\)](#)

Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).

[M03.B-O.3.1.5 \(Advanced\)](#)

Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations. Example 1: Observe that 4 times a number is always even. Example 2: Explain why 6 times a number can be decomposed into three equal addends.

Alternate Eligible Content Code M03BO3.1.5a: Identify a mathematical pattern in a real-world problem

M03BO3.1.5b: Identify the 3 next terms in a mathematical pattern (increasing by 2, 5 or 10)

[M03.B-O.3.1.6 \(Advanced\)](#)

Create or match a story to a given combination of symbols (+, -, x, ^, <, >, and =) and numbers.

[M03.B-O.3.1.7 \(Advanced\)](#)

Identify the missing symbol (+, -, x, ^, <, >, and =) that makes a number sentence true.

(* standards consolidated from Topic level)

Topic: Lesson 4- Patterns- I

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.3.A.4 \(Advanced\)](#)

Solve problems involving the four operations, and identify and explain patterns in arithmetic.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.B-O.3.1.1 \(Advanced\)](#)

Solve two-step word problems using the four operations (expressions are not explicitly stated). Limit to problems with whole numbers and having whole-number answers.

Alternate Eligible Content Code M03BO3.1.1a: Solve a 1-step real-world problem involving numbers under 10 using addition or subtraction

[M03.B-O.3.1.2 \(Advanced\)](#)

Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.

[M03.B-O.3.1.3 \(Advanced\)](#)

Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.

[M03.B-O.3.1.4 \(Advanced\)](#)

Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).

[M03.B-O.3.1.5 \(Advanced\)](#)

Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations. Example 1: Observe that 4 times a number is always even. Example 2: Explain why 6 times a number can be decomposed into three equal addends.

Alternate Eligible Content Code M03BO3.1.5a: Identify a mathematical pattern in a real-world problem M03BO3.1.5b: Identify the 3 next terms in a mathematical pattern (increasing by 2, 5 or 10)

[M03.B-O.3.1.6 \(Advanced\)](#)

Create or match a story to a given combination of symbols (+, -, x, ^, <, >, and =) and numbers.

[M03.B-O.3.1.7 \(Advanced\)](#) Identify the missing symbol (+, -, x, ^, <, >, and =) that makes a number sentence true.

Unit: Multiplication (and Division)

Month: October- 30 days

- Skills:**
1. Demonstrate an understanding of properties of multiplication
 2. Demonstrate an understanding of the relationship between multiplication and division
 3. Demonstrate fluency

- Essential Questions:**
1. How is mathematics used to quantify, compare, represent, and model numbers? E
 2. How can mathematics support effective communication?
 3. How are relationships represented mathematically? E
 4. How can expressions, equations and inequalities be used to quantify, solve, model and/ or analyze mathematical situations? E

- Content:**
1. Mathematical relationships among numbers can be represented, compared and communicated.
 2. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations.

- Vocabulary:**
- Area
 - Denominator
 - Division
 - Equivalent fractions
 - Estimate
 - Fraction
 - Linear
 - Liquid Volume
 - Mass
 - Numerator
 - Pattern
 - Pentagon
 - Perimeter
 - Pictograph
 - Polygon
 - Quadrilateral
 - Rhombus

Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

- [CC.2.2.3.A.1](#)
(Advanced) Represent and solve problems involving multiplication and division.
- [CC.2.2.3.A.2](#)
(Advanced) Understand properties of multiplication and the relationship between multiplication and division.
- [CC.2.2.3.A.3](#)
(Advanced) Demonstrate multiplication and division fluency.

STATE: PA Core Anchors and Eligible Content (2014)

- [M03.B-O.1.1.1](#)
(Advanced) Interpret and/or describe products of whole numbers (up to and including 10×10). Example 1: Interpret 35 as the total number of objects in 5 groups, each containing 7 objects. Example 2: Describe a context in which a total number of objects can be expressed as 5×7 .
- Alternate Eligible Content Code M03BO1.1.1a: Use a model in a multiplication situation
- [M03.B-O.1.1.2](#)
(Advanced) Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 50 and limit divisors and quotients through 10). Example 1: Interpret $48 \div 8$ as the number of objects in each share when 48 objects are partitioned equally into 8 shares, or as a number of shares when 48 objects are partitioned into equal shares of 8 objects each. Example 2: Describe a context in which a number of shares or a number of groups can be expressed as $48 \div 8$.
- [M03.B-O.1.2.1](#)
(Advanced) Use multiplication (up to and including $10 * 10$) and/or division (limit dividends through 50 and limit divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.
- [M03.B-O.1.2.2](#)
(Advanced) Determine the unknown whole number in a multiplication (up to and including $10 * 10$) or division (limit dividends through 50 and limit divisors and quotients through 10) equation relating three whole numbers. Example: Determine the unknown number that makes an equation true.
- [M03.B-O.2.1.1](#)
(Advanced) Apply the commutative property of multiplication (not identification or definition of the property).
- [M03.B-O.2.1.2](#)
(Advanced) Apply the associative property of multiplication (not identification or definition of the property).
- [M03.B-O.2.2.1](#)
(Advanced) Interpret and/or model division as a multiplication equation with an unknown factor. Example: Find $32 * 8$ by solving $8 * ? = 32$.

(* standards consolidated from Topic level)

Topic: Lesson 28- Count Equal Groups- E

Minutes for Topic: 60

Core Lesson
Description: Count Equal Groups

Core Lesson

Student Learning Objectives: The students will be able to use equal groups to find how many in all.

Core Lesson Essential Questions: How can you use equal groups to find how many in all?- E

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.3.A.1 \(Advanced\)](#) Represent and solve problems involving multiplication and division.

[CC.2.2.3.A.2 \(Advanced\)](#) Understand properties of multiplication and the relationship between multiplication and division.

[CC.2.2.3.A.3 \(Advanced\)](#) Demonstrate multiplication and division fluency.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.B-O.1.1.1 \(Advanced\)](#) Interpret and/or describe products of whole numbers (up to and including 10×10). Example 1: Interpret 35 as the total number of objects in 5 groups, each containing 7 objects. Example 2: Describe a context in which a total number of objects can be expressed as 5×7 .

Alternate Eligible Content Code M03BO1.1.1a: Use a model in a multiplication situation

[M03.B-O.1.1.2 \(Advanced\)](#) Interpret and/or describe whole-number quotients of whole numbers (limit dividends through 50 and limit divisors and quotients through 10). Example 1: Interpret $48 \div 8$ as the number of objects in each share when 48 objects are partitioned equally into 8 shares, or as a number of shares when 48 objects are partitioned into equal shares of 8 objects each. Example 2: Describe a context in which a number of shares or a number of groups can be expressed as $48 \div 8$.

[M03.B-O.1.2.1 \(Advanced\)](#) Use multiplication (up to and including $10 * 10$) and/or division (limit dividends through 50 and limit divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.

[M03.B-O.1.2.2 \(Advanced\)](#) Determine the unknown whole number in a multiplication (up to and including $10 * 10$) or division (limit dividends through 50 and limit divisors and quotients through 10) equation relating three whole numbers. Example: Determine the unknown number that makes an equation true.

[M03.B-O.2.1.1 \(Advanced\)](#) Apply the commutative property of multiplication (not identification or definition of the property).

[M03.B-O.2.1.2 \(Advanced\)](#) Apply the associative property of multiplication (not identification or definition of the property).

[M03.B-O.2.2.1 \(Advanced\)](#) Interpret and/or model division as a multiplication equation with an unknown factor. Example: Find $32 * 8$ by solving $8 * ? = 32$.

Topic: Lesson 29- Relate Addition to Multiplication- E

Minutes for Topic: 60

Core Lesson Description: Relate Addition and Multiplication

Core Lesson Student Learning Objectives: The students will be able to determine how multiplication is like/different addition.

Core Lesson Essential Questions: How is multiplication alike/different than addition?- E

Topic: Lesson 30- Skip Count on a Number line- I

Minutes for Topic: 60

Core Lesson Description: Skip Count on a Number Line
Mid-Chapter Checkpoint

Core Lesson Student Learning Objectives: The students will be able to use a number line to skip count and find how many in all.
The students will be able to apply strategies taught throughout the chapter.

Core Lesson Essential Questions: How can you use a number line to skip count and find how many in all?- I

Topic: Lesson 31- Problem Solving- E

Minutes for Topic: 60

Core Lesson Description: Problem Solving - Model Multiplication

Core Lesson Student Learning Objectives: The students will be able to use the strategy draw a diagram to solve one- and two- step problems.

Core Lesson Essential Questions: How can you use the strategy draw a diagram to solve one and two step problems?- E

Topic: Lesson 32- Arrays- E

Minutes for Topic: 60

Core Lesson Description: Model with Arrays

Core Lesson Student Learning Objectives: The students will be able to use arrays to model multiplication and find factors.

Core Lesson Essential Questions: How can you use arrays to model multiplication and find factors?- E

Topic: Lesson 33- Commutative Property- E

Minutes for Topic: 60

Core Lesson Description: Commutative Property of Multiplication
Multiply with 1 and 0

Core Lesson Student Learning Objectives: The students will be able to use the Commutative Property to find products.
The students will be able to multiply a number by 0 or 1.

Core Lesson Essential Questions: How can you use the Commutative property of multiplication to find products?- E
What happens when you multiply a number by 0 or 1?- E

Topic: Lesson 34 & 35- Review

Minutes for Topic: 120

Core Lesson Chapter 3 Review

Description:

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 36 & 37- Test

Minutes for Topic: 120

Core Lesson Description: Chapter 3 Test

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 38 Multiply 2 and 4- E

Minutes for Topic: 60

Core Lesson Description: Multiply with 2 and 4

Core Lesson Student Learning Objectives: The students will be able to multiply with 2 and 4.

Core Lesson Essential Questions: How can you multiply with 2 and 4?- E

Topic: Lesson 39- Multiply 5 and 10- E

Minutes for Topic: 60

Core Lesson Description: Multiply with 5 and 10

Core Lesson Student Learning Objectives: Use skip counting, a number line, or a bar model to multiply with the factors 5 and 10

Core Lesson Essential Questions: How can you multiply with 5 and 10?

Topic: Lesson 40- Multiply 3 and 6- E

Minutes for Topic: 60

Core Lesson Description: Multiply with 3 and 6

Core Lesson Student Learning Objectives: Draw a picture, use 5s facts and addition, doubles, or a multiplication table to multiply factors 3 and 6?

Core Lesson Essential Questions: What are some ways to multiply with 3 and 6?- E

Topic: Lesson 41 & 42- Distributive Property- I

Minutes for Topic: 120

Core Lesson Description: Distributive Property

Core Lesson

Student Learning Objectives: The students will be able to use the distributive property to find products by breaking apart arrays

Core Lesson

Essential Questions: How can you use the Distributive Property to find products?- I

Topic: Lesson 43- Multiply 7 and 8- E

Minutes for Topic: 60

Core Lesson Description: Multiply 7 & 8

Core Lesson Student Learning Objectives: The students will be able to multiply with 7 and 8.

The students will be able to use the distributive property to multiply by 7 and 8.

Core Lesson

Essential Questions: What strategies can you use to multiply by 7 and 8?- E

Topic: Lesson 44-Associative Property- E

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint
Associative Property of Multiplication

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

The students will be able to use the Associative Property of Multiplication to find products

Core Lesson

Essential Questions: How can you use the Associative Property of Multiplication to find products?- E

Topic: Lesson 45- Multiply 8 and 9-E

Minutes for Topic: 60

Core Lesson Description: Multiply with 8 and 9

Core Lesson Student Learning Objectives: The students will be able to multiply with 8 and 9.

Core Lesson Essential Questions: What strategies can you use to multiply?- E

Topic: Lesson 46 & 47- Review

Minutes for Topic: 120

Core Lesson Description: Chapter 4 Review

Core Lesson

Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 48 & 49- Test

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Test

Core Lesson

Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 50- Describe Patterns- I

Minutes for Topic: 60

Core Lesson Description: Describe Patterns

Core Lesson

Student Learning Objectives: The students will be able to describe a pattern in a table.

Core Lesson

Essential Questions: How can you use properties to explain patterns on the multiplication table?- I

Topic: Lesson 51- Find Unknown Numbers- E

Minutes for Topic: 60

Core Lesson Description: Find Unknown Numbers

Core Lesson

Student Learning Objectives: Use an array or multiplication table to find an unknown factor

Core Lesson

Essential Questions: How can you use an array or multiplication table to find an unknown factor or product?- E

Topic: Lesson 52- Problem Solving

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint
Problem Solving - Use the Distributive Property

Core Lesson

Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Objectives: The students will be able to use the strategies *draw a diagram* to multiply with multiples of ten.

Core Lesson

Essential Questions: How can you use the strategy draw a diagram to multiply with multiples of 10?- E

Topic: Lesson 53- Multiples of Ten- E

Minutes for Topic: 60

Core Lesson Description: Multiplication Strategies with Multiples of 10

Core Lesson Student Learning Objectives: The students will be able to multiply with multiples of 10.

Core Lesson Essential Questions: What strategies can you use to multiply with multiples of 10? - E

Topic: Lesson 54- Multiply 1 digit numbers by 10- E

Minutes for Topic: 60

Core Lesson Description: Multiply 1-Digit Numbers by Multiples of 10

Core Lesson Student Learning Objectives: The students will be able to model and record multiply 1-digit whole numbers by multiples of 10.

Core Lesson Essential Questions: How can you model and record multiplying multiples of 10 by 1 digit whole numbers? -E

Topic: Lesson 55- Review

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Review

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 56 & 57- Test

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Test

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Unit: Fractions

Month: January-15 days
February- 15 days

- Skills:**
1. Develop an understanding of fractions as numbers
 2. Represent fractions on a number line
 3. Represent and generate equivalent fractions
 4. Compare fractions with the same numerator or same denominator

Essential 1. How is mathematics used to quantify, compare, represent, and model numbers?

Questions:

2. How can mathematics support effective communication?
3. How are relationships represented mathematically?
4. What does it mean to estimate or analyze numerical quantities?
5. What make a tool and/or strategy appropriate for a given task?

Content:

1. Mathematical relationships among numbers can be represented, compared and communicated.
2. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations.
3. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.

Vocabulary:

Area
Denominator
Division
Equivalent fractions
Estimate
Fraction
Linear
Liquid Volume
Mass
Numerator
Pattern
Pentagon
Perimeter
Pictograph
Polygon
Quadrilateral
Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.3.C.1](#) Explore and develop an understanding of fractions as numbers.
(Advanced)

STATE: PA Core Anchors and Eligible Content (2014)

[M03.A-F.1.1.1](#)
(Advanced)

Demonstrate that when a whole or set is partitioned into y equal parts, the fraction $1/y$ represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary).

Alternate Eligible Content Code M03AF1.1.1a: Identify the unit fraction or other proper fraction (denominators = 2, 3, 4, 6) that matches the representation

[M03.A-F.1.1.2](#)
(Advanced)

Represent fractions on a number line (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary).

[M03.A-F.1.1.3](#)
(Advanced)

Recognize and generate simple equivalent fractions (limit the denominators to 1, 2, 3, 4, 6, and 8 and limit numerators to whole numbers less than the denominator).
Example 1: $1/2 = 2/4$ Example 2: $4/6 = 2/3$

Alternate Eligible Content Code M03AF1.1.3b: Identify equivalent fractions using representations

[M03.A-F.1.1.4](#)
(Advanced)

Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers (limit denominators to 1, 2, 3, 4, 6, and 8). Example 1: Express 3 in the form $3 = 3/1$. Example 2: Recognize that $6/1 = 6$.

[M03.A-F.1.1.5](#)
(Advanced)

Compare two fractions with the same denominator (limit denominators to 1, 2, 3, 4, 6, and 8), using the symbols $>$, $=$, or $<$, and/or justify the conclusions.

(* standards consolidated from Topic level)

Topic: Lesson 58- Equal Parts of a Whole- E

Minutes for Topic: 60

Core Lesson Description: Equal Parts of a Whole

Core Lesson

Student Learning Objectives: The students will be able to name equal parts of a whole.

Objectives:

Core Lesson

Essential Questions: What are equal parts of a whole?- E

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.3.C.1 \(Advanced\)](#) Explore and develop an understanding of fractions as numbers.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.A-F.1.1.1 \(Advanced\)](#) Demonstrate that when a whole or set is partitioned into y equal parts, the fraction $1/y$ represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary).

Alternate Eligible Content Code M03AF1.1.1a: Identify the unit fraction or other proper fraction (denominators = 2, 3, 4, 6) that matches the representation

[M03.A-F.1.1.2 \(Advanced\)](#) Represent fractions on a number line (limit denominators to 2, 3, 4, 6, and 8; limit numerators to whole numbers less than the denominator; and no simplification necessary).

[M03.A-F.1.1.3 \(Advanced\)](#) Recognize and generate simple equivalent fractions (limit the denominators to 1, 2, 3, 4, 6, and 8 and limit numerators to whole numbers less than the denominator).
Example 1: $1/2 = 2/4$ Example 2: $4/6 = 2/3$

Alternate Eligible Content Code M03AF1.1.3b: Identify equivalent fractions using representations

[M03.A-F.1.1.4 \(Advanced\)](#)

representations

Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers (limit denominators to 1, 2, 3, 4, 6, and 8). Example 1: Express 3 in the form $3 = 3/1$. Example 2: Recognize that $6/1 = 6$.

[M03.A-F.1.1.5 \(Advanced\)](#)

Compare two fractions with the same denominator (limit denominators to 1, 2, 3, 4, 6, and 8), using the symbols $>$, $=$, or $<$, and/or justify the conclusions.

Topic: Lesson 59- Equal Shares- E

Minutes for Topic: 60

Core Lesson Description: Equal Shares

Core Lesson

Student Learning Objectives: The students will be able to divide models to make equal shares

Objectives:

Core Lesson

Essential Questions: Why do you need to know how to make equal shares?- E

Topic: Lesson 60- Unit Fractions of a Whole- E

Minutes for Topic: 60

Core Lesson Description: Unit Fractions of a Whole

Core Lesson

Student Learning Objectives: The students will be able to identify top and bottom numbers of a fraction.

Objectives:

Core Lesson

Essential Questions: What do the top numbers and the bottom numbers tell?- E

Topic: Lesson 61- Fractions of a Whole- E

Minutes for Topic: 60

Core Lesson Description: Fractions of a Whole

Core Lesson

Student Learning Objectives: The students will be able to use a fraction to name on epart of a whole that is divided into equal parts.

Objectives:

Core Lesson

Essential Questions: How does a fraction name part of a whole?- E

Topic: Lesson 62- Fractions on a number line- E

Minutes for Topic: 60

Core Lesson Description: Fractions on a Number Line
Mid-Chapter Checkpoint

Core Lesson

Student Learning Objectives: The students will be able to represent and locate fractions on a number line.

Objectives: The students will be able to apply strategies taught throughout the chapter.

**Core Lesson
Essential
Questions:** How can you represent and locate fractions on a number line?- E

Topic: Lesson 63- Relate Fractions and Whole Numbers- E

Minutes for Topic: 60

**Core Lesson
Description:** Relate Fractions and Whole Numbers

**Core Lesson
Student Learning
Objectives:** The students will be able to relate fractions and whole numbers by expressing whole numbers as fractions?

**Core Lesson
Essential
Questions:** When might you use a fraction greater than 1 or a whole number?- E

Topic: Lesson 64- Fractions of a Group-E

Minutes for Topic: 60

**Core Lesson
Description:** Fractions of a Group

**Core Lesson
Student Learning
Objectives:** The students will be able to model, read and write fractional parts?

**Core Lesson
Essential
Questions:** How can a fraction name part of a group?- E

Topic: Lesson 65- Part of a Group Using Unit Fractions- I

Minutes for Topic: 60

**Core Lesson
Description:** Find Part of a Group Using Unit Fractions

**Core Lesson
Student Learning
Objectives:** The students will be able to find fractional parts of a group using unit fractions

**Core Lesson
Essential
Questions:** How can a fraction tell how many are in part of a group?- I

Topic: Lesson 66- Problem Solving- E

Minutes for Topic: 60

**Core Lesson
Description:** Problem Solving - Find the Whole Group Using Unit Fractions

**Core Lesson
Student Learning
Objectives:** The students will be able to use the strategy *draw a diagram* to solve fraction problems.

**Core Lesson
Essential
Questions:** How can you use the strategy draw a diagram to solve fraction problems?- E

Topic: Lesson 67 & 68- Review

Minutes for Topic: 120

Core Lesson Description: Chapter 8 Review

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 69 & 70- Test

Minutes for Topic: 120

Core Lesson Description: Chapter 8 Test

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 71- Problem Solving- E

Minutes for Topic: 60

Core Lesson Description: Problem Solving - Compare Fractions

Core Lesson Student Learning Objectives: Explore and develop an understanding of fractions as numbers

Core Lesson Essential Questions: How can you use the strategy act it out to solve comparison problems?- E

Topic: Lesson 72- Compare Fractions with Same Denominator- E

Minutes for Topic: 60

Core Lesson Description: Compare Fractions with the Same Denominator

Core Lesson Student Learning Objectives: The students will be able to compare fractions with the same denominator.

Core Lesson Essential Questions: How can you compare fractions with same denomintor?-E

Topic: Lesson 73Compare Fractions with Same Numerator-E

Minutes for Topic: 60

Core Lesson Description: Compare Fractions with the Same Numerator

Core Lesson Student Learning Objectives: The students will be able to compare fractions with the same numerator.

Core Lesson Essential Questions: How can you compare fractions with the same numerator?-E

Topic: Lesson 74- Compare Fractions-E

Minutes for Topic: 60

Core Lesson Description: Compare Fractions

Core Lesson Student Learning Objectives: The students will be able to use strategies to compare fractions.

Core Lesson Essential Questions: What strategies can you use to compare fractions?-E

Topic: Lesson 75- Mid-Chapter Checkpoint

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 76- Compare and Order Fractions- E

Minutes for Topic: 60

Core Lesson Description: Compare and Order Fractions

Core Lesson Student Learning Objectives: The students will be able to compare and order fractions.

Core Lesson Essential Questions: How can you compare and order fractions?- E

Topic: Lesson 77- Model Equivalent Fractions- E

Minutes for Topic: 60

Core Lesson Description: Model Equivalent Fractions

Core Lesson Student Learning Objectives: The students will be able to use models to find equivalent fractions.

Core Lesson Essential Questions: How can you use models to find equivalent fractions?-I

Topic: Lesson 78- Equivalent Fractions- E

Minutes for Topic: 60

Core Lesson Description: Equivalent Fractions

Core Lesson Student Learning Objectives: The students will be able to use models to name equivalent fractions.

Core Lesson Essential Questions: How can you use models to name equivalent fractions?-E

Topic: Lesson 79 & 80- Review

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Review/Test

Core Lesson

Student Learning The students will be able to apply strategies taught throughout the chapter.

Objectives:

Topic: Lesson 81 & 82- Test

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Test

Core Lesson

Student Learning The students will be able to apply strategies taught throughout the chapter.

Objectives:

Topic:

Unit: Measurement

Month: January- 10 days

- Skills:**
1. Solve problems
 2. Make estimations
 3. Determine the area of a rectangle as it relates to multiplication and addition
 4. Determine perimeter or side lengths of various polygons
 5. Distinguish between linear and are measurements

Essential Questions:

1. What does it mean to estimate or analyze numerical quantities? E
2. When is it appropriate to estimate versus calculate? I
3. What makes a tool and/or strategy appropriate for a given task? E
4. Why does "what" we measure influence "how" we measure? E
5. In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted? I
6. How precise do measurements and calculations need to be? E

Content:

1. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
2. Measurement attributes can be quantified, and estimated using customary and non-customary units of measures.

Vocabulary:

- Area
- Denominator
- Division
- Equivalent fractions

Estimate
Fraction
Linear
Liquid Volume
Mass
Numerator
Pattern
Pentagon
Perimeter
Pictograph
Polygon
Quadrilateral
Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.6](#)
(Advanced) Solve problems involving perimeters of polygons and distinguish between linear and area measures.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.1.2.3](#)
(Advanced) Use a ruler to measure lengths to the nearest quarter inch or centimeter.

Alternate Eligible Content Code M03DM1.2.3a: Use a ruler and measure to the nearest inch (exact measurement)

[M03.D-M.3.1.1](#)
(Advanced) Measure areas by counting unit squares (square cm, square m, square in., square ft, and non-standard square units).

[M03.D-M.3.1.2](#)
(Advanced) Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Alternate Eligible Content Code M03DM3.1.2a: Measure the area of a rectangle by counting squares, tiling, or addition

[M03.D-M.4.1.1](#)
(Advanced) Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.

Alternate Eligible Content Code M03DM4.1.1a: Find the perimeter of a rectangle

(* standards consolidated from Topic level)

Topic: Lesson 89- Measure Length- E

Minutes for Topic: 60

Core Lesson Description: Measure Length**Core Lesson Student Learning Objectives:** The students will be able to measure length to the nearest half or fourth inch and use measurement data to make a line plot.**Core Lesson Essential Questions:** How can you generate measurement data and show the data on a line plot?**Core Lesson Key Terminology & Definitions:** inch**STANDARDS**

STATE: PA Core Standards (2014)

[CC.2.4.3.A.6 \(Advanced\)](#) Solve problems involving perimeters of polygons and distinguish between linear and area measures.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.1.2.3 \(Advanced\)](#) Use a ruler to measure lengths to the nearest quarter inch or centimeter.

Alternate Eligible Content Code M03DM1.2.3a: Use a ruler and measure to the nearest inch (exact measurement)

[M03.D-M.3.1.1 \(Advanced\)](#) Measure areas by counting unit squares (square cm, square m, square in., square ft, and non-standard square units).[M03.D-M.3.1.2 \(Advanced\)](#) Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Alternate Eligible Content Code M03DM3.1.2a: Measure the area of a rectangle by counting squares, tiling, or addition

[M03.D-M.4.1.1 \(Advanced\)](#) Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.

Alternate Eligible Content Code M03DM4.1.1a: Find the perimeter of a rectangle

Topic: Lesson 90- Metric Measurement- E

Minutes for Topic: 60

Core Lesson Description: Estimate and Measure Metric Length**Core Lesson Student Learning Objectives:** The students will be able to estimate and measure length in centimeters.**Core Lesson Essential Questions:** How can you measure using metric ?**Topic: Lesson 91- Estimate and Measure Liquid Volume- E**

Minutes for Topic: 60

Core Lesson Description: Estimate and Measure Liquid Volume

Core Lesson Student Learning Objectives: The students will be able to estimate and measure liquid volume in liters

Core Lesson Essential Questions: How can you estimate and measure liquid volume in metric units?

Core Lesson Key Terminology & Definitions: liquid volume
liters

Topic: Lesson 92-Estimate and Measure Mass- E

Minutes for Topic: 60

Core Lesson Description: Estimate and Measure Mass

Core Lesson Student Learning Objectives: The students will be able to estimate and measure mass in grams and kilograms

Core Lesson Essential Questions: How can you estimate and measure mass in metric units?

Core Lesson Key Terminology & Definitions: gram
kilogram
mass

Topic: Lesson 93-Problem Solving- I

Minutes for Topic: 60

Core Lesson Description: Solve Problems About Liquid Volume and Mass

Core Lesson Student Learning Objectives: The students will be able to add, subtract, multiply, or divide to solve problems involving liquid volumes or masses.

Topic: Lesson 94 & 95- Review

Minutes for Topic: 120

Core Lesson Description: Chapter 10 Review

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 96 & 97- Test

Minutes for Topic: 120

Core Lesson Description: Chapter 10 Test

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Unit: Time

Month: January- 10 days

- Skills:**
1. Solve problems
 2. Make estimations
 3. Tell and write time to nearest minute
 4. Calculate time intervals

- Essential Questions:**
1. What does it mean to estimate or analyze numerical quantities? E
 2. When is it appropriate to estimate versus calculate? E
 3. How precise do measurements and calculations need to be? E

- Content:**
1. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.
 2. Measurement attributes can be quantified, and estimated using customary and non-customary units of measure.

- Vocabulary:**
- Area
 - Denominator
 - Division
 - Equivalent fractions
 - Estimate
 - Fraction
 - Linear
 - Liquid Volume
 - Mass
 - Numerator
 - Pattern
 - Pentagon
 - Perimeter
 - Pictograph
 - Polygon
 - Quadrilateral

Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.2 \(Advanced\)](#) Tell and write time to the nearest minute and solve problems by calculating time intervals.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.1.1.1 \(Advanced\)](#) Tell, show, and/or write time (analog) to the nearest minute.

Alternate Eligible Content Code M03DM1.1.1a: Tell time to the hour or half hour on a clock

[M03.D-M.1.1.2 \(Advanced\)](#) Calculate elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less).

(* standards consolidated from Topic level)

Topic: Lesson 83-Time to the Minute- E

Minutes for Topic: 60

Core Lesson Time to the Minute

Description: A.M. and P.M

Core Lesson The students will be able to tell time to the nearest minute.

Student Learning Objectives: The students will be able to use A.M. and P.M. with time.

Core Lesson Essential Questions: How can you tell time to the nearest minute?

Core Lesson Key Terminology & Definitions: minute
analog clock
digital clock
half hour
quarter hour

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.3.A.2 \(Advanced\)](#) Tell and write time to the nearest minute and solve problems by calculating time intervals.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.D-M.1.1.1 \(Advanced\)](#) Tell, show, and/or write time (analog) to the nearest minute.

Alternate Eligible Content Code M03DM1.1.1a: Tell time to the hour or half hour on a clock

[M03.D-M.1.1.2 \(Advanced\)](#) Calculate elapsed time to the minute in a given situation (total elapsed time limited to 60 minutes or less).

Topic: Lesson 84 & 85 A.M. and P.M.- E

Minutes for Topic: 120

Core Lesson Description: Measure Time Intervals

Core Lesson Student Learning Objectives: The students will be able to use a number line or an analog clock to measure time intervals in minutes

Core Lesson Key Terminology & Definitions: elapsed time

Topic: Lesson 86 & 87-Use Time Intervals- E

Minutes for Topic: 120

Core Lesson Description: Use Time Intervals

Core Lesson Student Learning Objectives: The students will be able to use a number line or an analog clock to add or subtract time intervals to find starting times or ending times

Core Lesson Essential Questions: How can you find a starting time or an ending time when you know the elapsed time?

Core Lesson Notes: Use 10.5 as part of your content

Topic: Lesson 88- Mid-Chapter Checkpoint

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Core Lesson Notes: Introduce Rulers after Mid-Chapter Checkpoint

Unit: Two- and Three- Dimensional Figures

Month: March- 13 days

Skills:

1. Identify and classify shapes and their attributes
2. Compare shapes

Essential Questions:

1. How can patterns be used to describe relationships in mathematical situations? E
2. How can recognizing repetition or regularity assist in solving problems more efficiently? E

3. How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving? E
4. How can geometric properties and theorems be used to describe, model, and analyze situations? I

- Content:**
1. Patterns exhibit relationships that can be extended, described, and generalized.
 2. Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization.

Vocabulary:

- Area
- Denominator
- Division
- Equivalent fractions
- Estimate
- Fraction
- Linear
- Liquid Volume
- Mass
- Numerator
- Pattern
- Pentagon
- Perimeter
- Pictograph
- Polygon
- Quadrilateral
- Rhombus
- Round
- Square Unit
- Tally Chart
- Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.3.3.A.1 \(Advanced\)](#) Identify, compare, and classify shapes and their attributes.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.C-G.1.1.1 \(Advanced\)](#) Explain that shapes in different categories may share attributes and that the shared attributes can define a larger category. Example 1: A rhombus and a rectangle are both quadrilaterals since they both have exactly four sides. Example 2: A triangle and a pentagon are both polygons

since they are both multi-sided plane figures.

Alternate Eligible Content Code M03CG1.1.1a: Identify similarities between two polygons

[M03.C-G.1.1.2 \(Advanced\)](#)

Recognize rhombi, rectangles, and squares as examples of quadrilaterals and/or draw examples of quadrilaterals that do not belong to any of these subcategories.

(* standards consolidated from Topic level)

Topic: Lesson 111- Describe Plane Shapes- E

Minutes for Topic: 60

Core Lesson Description: Describe Plane Shapes

Core Lesson Student Learning Objectives: The students will be able to identify and describe attributes of plane shapes

Core Lesson Essential Questions: What are some ways to describe two-dimensional shapes?

Core Lesson Key Terminology & Definitions: closed shape, end point, line, line segment, open shape, plane shape, point, ray, two dimensional shape

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.3.3.A.1 \(Advanced\)](#) Identify, compare, and classify shapes and their attributes.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.C-G.1.1.1 \(Advanced\)](#) Explain that shapes in different categories may share attributes and that the shared attributes can define a larger category. Example 1: A rhombus and a rectangle are both quadrilaterals since they both have exactly four sides. Example 2: A triangle and a pentagon are both polygons since they are both multi-sided plane figures.

Alternate Eligible Content Code M03CG1.1.1a: Identify similarities between two polygons

[M03.C-G.1.1.2 \(Advanced\)](#) Recognize rhombi, rectangles, and squares as examples of quadrilaterals and/or draw examples of quadrilaterals that do not belong to any of these subcategories.

Topic: Lesson 112- Describe Angles in Plane Shapes- E

Minutes for Topic: 60

Core Lesson Description: Describe Angles in Plane Shapes

Core Lesson Student Learning Objectives: The students will be able to describe angles in plane shapes.

Core Lesson Essential Questions: How can you describe angles in plane shapes?

Core Lesson Key Terminology & Definitions: angle, right angle, vertex

Topic: Lesson 113- Identify Polygons- E

Minutes for Topic: 60

Core Lesson Description: Identify Polygons

Core Lesson Student Learning Objectives: The students will be able to identify polygons by the number of sides they have

Core Lesson Essential Questions: How can you use line segments and angles to make polygons?

Core Lesson Key Terminology & Definitions: decagon
hexagon
octagon
pentagon
polygon
quadrilateral
side
triangle

Topic: Lesson 114-Describe Sides of Polygons- E

Minutes for Topic: 60

Core Lesson Description: Describe Sides of Polygons

Core Lesson Student Learning Objectives: The students will be able to describe line segments that are sides of polygons.

Core Lesson Essential Questions: How can you describe line segments that are sides of polygons?

Core Lesson Key Terminology & Definitions: intersecting lines
parallel lines
perpendicular lines

Topic: Lesson 115- Classify Quadrilaterals- I

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint
Classify Quadrilaterals

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.
The students will be able to use sides and angles to help describe quadrilaterals.

Core Lesson

Essential Questions: How can you use sides and angles to help you describe quadrilaterals?

Core Lesson Key Terminology & Definitions: rectangle
rhombus
square
trapezoid

Topic: Lesson 116-Draw Quadrilaterals- I

Minutes for Topic: 60

Core Lesson Description: Draw Quadrilaterals

Core Lesson Student Learning Objectives: The students will be able to draw quadrilaterals.

Core Lesson Essential Questions: How can you draw quadrilaterals?

Topic: Lesson 117- Describe Triangles- I

Minutes for Topic: 60

Core Lesson Description: Describe Triangles

Core Lesson Student Learning Objectives: The students will be able to use sides and angles to describe triangles.

Core Lesson Essential Questions: How can you use sides and angles to help you describe triangles?

Topic: Lesson 118- Classify Plane Shapes-C

Minutes for Topic: 60

Core Lesson Description: Problem Solving - Classify Plane Shapes

Core Lesson Student Learning Objectives: The students will be able to draw a diagram to classify plane shapes.

Core Lesson Essential Questions: How can you use the strategy draw a diagram to classify plane shapes?

Topic: Lesson 119- Relate fractions, shapes and area- C

Minutes for Topic: 60

Core Lesson Description: Relate Shapes, Fractions, and Area

Core Lesson Student Learning Objectives: The students will be able to divide shapes into parts with equal areas and write the area as a unit fraction of the whole.

**Core Lesson
Essential
Questions:**

How can you divide shapes into parts with equal areas and write the area as a unit fraction of the whole?

Topic: Lesson 120 & 121- Review

Minutes for Topic: 120

**Core Lesson
Description:** Chapter 12 Review

**Core Lesson
Student Learning Objectives:** The students will be able to apply strategies taught throughout the chapter.

Topic: Lesson 122 & 123- Test

Minutes for Topic: 120

**Core Lesson
Description:** Chapter 12 Test

**Core Lesson
Student Learning Objectives:** The students will be able to apply strategies taught throughout the chapter.

Unit: Perimeter and Area

Month: February- 13 days

Skills:

1. Partition two-dimensional shapes into equal parts
2. Express the area of a partition as a unit fraction of the whole

**Essential
Questions:**

1. How can patterns be used to describe relationships in mathematical situations? E
2. How can recognizing repetition or regularity assist in solving problems more efficiently? E
3. How are spatial relationships, including shape and dimension, used to draw, construct, model and represent real situations or solve problems? E
4. How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving? E
5. How can geometric properties and theorems be used to describe, model and analyze situations? E

Content:

1. Patterns exhibit relationships that can be extended, described, and generalized.
2. Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization.

Vocabulary:

Area
Denominator
Division
Equivalent fractions
Estimate
Fraction

Linear
Liquid Volume
Mass
Numerator
Pattern
Pentagon
Perimeter
Pictograph
Polygon
Quadrilateral
Rhombus
Round
Square Unit
Tally Chart
Temperature

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.3.3.A.2](#)
[\(Advanced\)](#)

Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.C-G.1.1.3](#)
[\(Advanced\)](#)

Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. Example 1: Partition a shape into 4 parts with equal areas. Example 2: Describe the area of each of 8 equal parts as $\frac{1}{8}$ of the area of the shape.

Alternate Eligible Content Code M03CG1.1.3a: Partition a rectangle into parts with equal areas

(* standards consolidated from Topic level)

Topic: Lesson 98- Model Perimeter- E

Minutes for Topic: 60

Core Lesson Description: Model Perimeter

Core Lesson Student Learning Objectives: Explore perimeter of polygons by counting units on grid paper.

Core Lesson Essential Questions: How can you find perimeter? E

Core Lesson Key Terminology & Definitions: perimeter

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.3.3.A.2 \(Advanced\)](#) Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.

STATE: PA Core Anchors and Eligible Content (2014)

[M03.C-G.1.1.3 \(Advanced\)](#) Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. Example 1: Partition a shape into 4 parts with equal areas. Example 2: Describe the area of each of 8 equal parts as $\frac{1}{8}$ of the area of the shape.

Alternate Eligible Content Code M03CG1.1.3a: Partition a rectangle into parts with equal areas

Topic: Lesson 99- Find Perimeter- E

Minutes for Topic: 60

Core Lesson Description: Find Perimeter

Core Lesson Student Learning Objectives: The students will be able to estimate and measure perimeter of polygons using inch and centimeter rulers

Core Lesson Essential Questions: How can you measure perimeter? E

Topic: Lesson 100-Find Unknown Side Lengths- E

Minutes for Topic: 60

Core Lesson Description: Algebra - Find Unknown Side Lengths

Core Lesson Student Learning Objectives: The students will be able to find the unknown length of a side in a plane figure when you know its perimeter.

Core Lesson Essential Questions: How can you find the unknown length of a side in a plane figure when you know its perimeter? E

Topic: Lesson 101 Understand Area- E

Minutes for Topic: 60

Core Lesson Description: Understand Area

Core Lesson Student Learning Objectives: The students will be able to explore perimeter and area as attributes of polygons.

Core Lesson Essential Questions: How is finding the area of a figure different than finding the perimeter? E

Topic: Lesson 102- Measure Area- E

Minutes for Topic: 60

Core Lesson Description: Measure Area
Use Area Models

Core Lesson Student Learning Objectives: The students will be able to find the area of plane figure by counting unit squares.
The students will be able to multiply to find the area of a rectangle.

Core Lesson Essential Questions: How can you find the area of a plane figure? E

Core Lesson Key Terminology & Definitions: Area
Square unit
unit square

Topic: Lesson 103-Problem Solving- I

Minutes for Topic: 60

Core Lesson Description: Mid-Chapter Checkpoint
Problem Solving - Area of Rectangles

Core Lesson Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.
The students will be able to use the strategy *find a pattern* to solve area problems.

Core Lesson Essential Questions: How can you use the strategy find a pattern to solve area problems?

Topic: Lesson 104-Area of Combined Rectangles-E

Minutes for Topic: 60

Core Lesson Description: Area of Combine Rectangles

Core Lesson Student Learning Objectives: Apply the Distributive Property to area models and to find the area of combined rectangles

Core Lesson Essential Questions: How can you break apart a figure to find the area? E

Topic: Lesson 105-Same Perimeter, Different Areas- E

Minutes for Topic: 60

Core Lesson Description: Same Perimeter, Different Areas

Core Lesson Student Learning Objectives: The students will be able to use area to compare areas of rectangles with the same perimeter.

Core Lesson Essential Questions: How can you use area to compare rectangles with the same perimeter?

Topic: Lesson 106-Same Area, Different Perimeter- E

Minutes for Topic: 60

Core Lesson Description: Same Area, Different Perimeters

Core Lesson

Student Learning Objectives: The students will be able to use perimeter to compare rectangles with the same area.

Objectives:

Core Lesson

Essential Questions: How can you use perimeter to compare rectangles with the same area?

Topic: Lesson 107 & 108- Review

Minutes for Topic: 120

Core Lesson Description: Chapter 11 Review

Core Lesson

Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Objectives:

Topic: Lesson 109 & 110- Test

Minutes for Topic: 120

Core Lesson Description: Chapter 11 Test

Core Lesson

Student Learning Objectives: The students will be able to apply strategies taught throughout the chapter.

Objectives:

Unit: Division

Month: April- 13 days

- Skills:**
1. Demonstrate an understanding of properties of division
 2. Demonstrate an understanding of the relationship between multiplication and division
 3. Demonstrate fluency

- Essential Questions:**
1. How is mathematics used to quantify, compare, represent, and model numbers? E
 2. How can mathematics support effective communication? C
 3. How are relationships represented mathematically? I
 4. How can expressions, equations and inequalities be used to quantify, solve, model and/ or analyze mathematical situations? E

- Content:**
1. Mathematical relationships among numbers can be represented, compared and communicated.
 2. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations.

Vocabulary: Division
Quotient
Divisor

Topic: Lesson 124- Divide by 2- E

Core Lesson Description: Divide by 2

Core Lesson Student Learning Objectives: Use models to represent division by 2

Core Lesson Essential Questions: What does dividing by 2 mean?

Topic: Lesson 125- Divide by 10-E

Core Lesson Description: Divide by 10

Core Lesson Student Learning Objectives: The student will be able to use repeated subtraction, a number line, or a multiplication table to divide by 10

Core Lesson Essential Questions: What strategies can you use to divide by 10?

Core Lesson Key Terminology & Definitions: dividend
divisor
factor
product

Topic: Lesson 126- Divide by 5- E

Core Lesson Description: Divide by 5

Core Lesson Student Learning Objectives: The student will be able to count up by 5s, or use 10s facts

Core Lesson Essential Questions: What does dividing by 5 mean?

Topic: Lesson 127- Divide by 3- E

Core Lesson Description: Divide by 3

Core Lesson Student Learning Objectives: The student will be able to use equal groups, a number line, or a related multiplication fact to divide by 3.

**Core Lesson
Essential
Questions:** What strategies can you use to divide by 3?

Topic: Lesson 128- Divide by - E

**Core Lesson
Description:** Divide by 4

**Core Lesson
Student Learning
Objectives:** The student will be able to use an array, equal groups, factors, or a related multiplication fact to divide by 4.

**Core Lesson
Essential
Questions:** What strategies can you use to divide by 4?

Topic: Lesson 129- Divide by 6- E

**Core Lesson
Description:** Divide by 6

**Core Lesson
Student Learning
Objectives:** The student will be able to use an array, equal groups, factors, or a related multiplication fact to divide by 6

**Core Lesson
Essential
Questions:** What strategies can you use to divide by 6?

Topic: Lesson 130- Divide by 7- E

**Core Lesson
Description:** Divide by 7

**Core Lesson
Student Learning
Objectives:** The student will be able to use an array, equal groups, factors, or a related multiplication fact to divide by 7

**Core Lesson
Essential
Questions:** What strategies can you use to divide by 7?

Topic: Lesson 131- Divide by 8

**Core Lesson
Description:** Divide by 8

**Core Lesson
Student Learning
Objectives:** The student will be able to use an array, equal groups, factors, or a related multiplication fact to divide by 8

**Core Lesson
Essential
Questions:** What strategies can you use to divide by 8?

Topic: Lesson 132- Divide by 9- E

**Core Lesson
Description:** Divide by 9

Core Lesson

Student Learning Objectives:

The student will be able to use an array, equal groups, factors, or a related multiplication fact to divide by 9

Core Lesson Essential Questions:

What strategies can you use to divide by 9?

Topic: Lesson 132- Problem Solving- C

Core Lesson Description:

Solve two-step problems by using the strategy Act It Out

Core Lesson

Student Learning Objectives:

The student will be able to act it out or draw a picture to solve two-step problems

Core Lesson Essential Questions:

How can you use the strategy act it out to solve two-step problems?

Topic: Lesson 133- Order of Operations- E

Core Lesson Description:

Perform operations in order when there are no parentheses

Core Lesson

Student Learning Objectives:

The student will be able to perform operations in order when there are no parentheses

Core Lesson Essential Questions:

Why are there rules such as the order of operations?

Topic: