Curriculum Map: Math Grade 2 2019-2020***

Course: Math Grade 2 Sub-topic: Uncategorized

Grade(s): None specified

Course Description:

Students at this level will exhibit the following:

Make sense of problems and persevere in solving them

- Realize 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 conceptualize and solve problems
- Check their thinking by asking themselves, "Does this make sense?"
- Make conjectures about the solution and plan out a problem solving approach

Reason abstractly and quantitatively

- Recognize that a number represents a specific quantity
- Connect the quantity to written symbols
- Create a representation of a problem while attending to the meanings of the quantities (quantitative reasoning)
- Begin to know and use different properties of operations and objects

Construct viable arguments and critique the reasoning of others

- Construct arguments using concrete referents, such as objects, pictures, drawings and actions
- Practice their mathematical communication skills as they participate in mathematical discussions involving questions like "How did you get that?" "Explain your thinking," and "Why is that true?"
- Explain their own thinking, but listen to others' explanations
- Decide if the explanations make sense and ask appropriate questions

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 or list, creating equations, etc.
- Connect the different representations and explain the connections
- Use all of these representations as needed

Use appropriate tools strategically

- Consider the available tools (including estimation) when solving a mathematical problem
- Decide when certain tools might be better suited
- Decide to solve a problem by drawing a picture rather than writing an equation

Attend to precision

- Develop their mathematical communication skills
- Use clear and precise language in their discussions with others and when they explain their own reasoning

Look for and make use of structure

- Look for patterns. For instance, they adopt mental math strategies based on patterns (making ten, fact families, doubles)

Look for and express regularity in repeated reasoning

- Look for patterns. For instance, they adopt mental math strategies based on patterns (making ten, fact families, doubles)

Course

Textbooks, Workbooks, Materials Citations: Houghton Mifflin Harcourt Go Math! 2015

Unit: Place Value

Month: August, September, October

Skills:

1. Understand that the three-digits of a three-digit number represent amounts of hundreds, tens and ones
2. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons
3. Count within 1000; skip-count by 5s, 10s, and 100s
4. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form

Essential Questions:

1. How is mathematics used to quantify, compare, represent, and model numbers?
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 makes a tool and/or strategy appropriate for a given task?
6. How can recognizing repetition or regularity assist in solving problems more efficiently?

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:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

CC.2.1.2.B.1 (Advanced)	Use place-value concepts to represent amounts of tens and ones and to compare three digit numbers.
CC.2.1.2.B.2 (Advanced)	Use place-value concepts to read, write, and skip count to 1000.

(* standards consolidated from Topic level)

Topic: Lesson 1: Chapter 1 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Introduction

Core Lesson Student Learning Objectives: SWBAT use place value to find the values of numbers and describe numbers in different ways.

Core Lesson Essential Questions: How do you use place value to find the values of numbers and describe numbers in different ways?

STANDARDS

STATE: PA Core Standards (2014)

CC.2.1.2.B.1 (Advanced)	Use place-value concepts to represent amounts of tens and ones and to compare three digit numbers.
CC.2.1.2.B.2 (Advanced)	Use place-value concepts to read, write, and skip count to 1000.

Topic: Lesson 4: Chapter 1 Lesson 3 - Understand Place Value (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 3 - Understand Place Value

Core Lesson Student Learning Objectives: SWBAT use place value to describe the values of digits in 2-digit numbers.

Core Lesson Essential Questions: How do you know the value of a digit? E

Topic: Lesson 5: Chapter 1 Lesson 4 - Expanded Form (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 4 - Expanded Form

Core Lesson Student Learning Objectives: SWBAT write 2-digit numbers in expanded form.

Core Lesson Essential Questions: How do you describe a 2-digit number as tens and ones? E

Topic: Lesson 6: Chapter 1 Lesson 5 - Different Ways to Write Numbers (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 5 - Different Ways to Write Numbers

Core Lesson Student Learning Objectives: SWBAT write 2-digit numbers in word form, expanded form, and standard form.

Core Lesson Essential Questions: What are different ways to write a 2-digit number? E

Topic: Lesson 7: Chapter 1 Lesson 6 - Different Names for Numbers (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 6 - Different Names for Numbers

Core Lesson Student Learning Objectives: SWBAT apply place value concepts to find equivalent representations of numbers.

Core Lesson Essential Questions: How can you show the value of a number in different ways? I

Topic: Lesson 8: Chapter 1 Lesson 7 - Tens and Ones (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 7 - Tens and Ones

Core Lesson Student Learning Objectives: SWBAT solve problems by finding different combinations of tens and ones to represent 2-digit numbers using the strategy *find a pattern*.

Core Lesson Essential Questions: How does finding a pattern help you find all the ways to show a number with tens and ones? I

Topic: Lesson 9: Chapter 1 Lesson 8 - Counting Patterns Within 100 (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 8 - Counting Patterns Within 100

Core Lesson Student Learning Objectives: SWBAT extend counting sequences within 100, counting by 1s, 5s, and 10s.

Core Lesson Essential Questions: How do you count by 1s, 5s, and 10s with numbers less than 100? E

Topic: Lesson 10: Chapter 1 Lesson 9 - Counting Patterns Within 1,000 (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 9 - Counting Patterns Within 1,000

Core Lesson Student Learning Objectives: SWBAT extend counting sequences within 1,000, by counting by 1s, 5s, 10s, and 100s.

Core Lesson Essential Questions: How do you count by 1s, 5s, 10s, and 100s with numbers less than 1,000? E

Topic: Lesson 11: Chapter 1 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Review

Core Lesson Student Learning Objectives: SWBAT use place value to find the values of numbers and describe numbers in different ways.

Core Lesson Essential Questions: How do you use place value to find the values of numbers and describe numbers in different ways?

Topic: Lesson 13: Chapter 2 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Introduction

Core Lesson Student Learning Objectives: SWBAT use place value to model, write, and compare 3-digit numbers.

Core Lesson Essential Questions: How can you use place value to model, write, and compare 3-digit numbers?

Topic: Lesson 14: Chapter 2 Lesson - Group Tens as Hundreds (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 1 - Group Tens as Hundreds

Core Lesson Student Learning Objectives: SWBAT understand that each group of 10 tens is equivalent to 1 hundred.

Core Lesson Essential Questions: How do you group tens and hundreds? E

Topic: Lesson 15: Chapter 2 Lesson 2 - Explore 3-Digit Numbers (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 2 - Explore 3-Digit Numbers

Core Lesson Student Learning Objectives: SWBAT write 3-digit numbers that are represented by groups of tens.

Core Lesson Essential Questions: How do you write a 3-digit number for a group of tens? E

Topic: Lesson 16: Chapter 2 Lesson 3 - Model 3-Digit Numbers (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 3 - Model 3-Digit Numbers

Core Lesson Student Learning Objectives: SWBAT use concrete and pictorial models to represent 3-digit numbers.

Core Lesson Essential Questions: How do you show a 3-digit number using blocks? E

Topic: Lesson 17: Chapter 2 Lesson 4 - Hundreds, Tens, and Ones (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 4 - Hundreds, Tens, and Ones

Core Lesson Student Learning Objectives: SWBAT apply place value concepts to write 3-digit numbers that are represented by pictorial models.

Core Lesson Essential Questions: How do you write the 3-digit number that is shown by a set of blocks? E

Topic: Lesson 18: Chapter 2 Lesson 5 - Place Value to 1,000 (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 5 - Place Value to 1,000

Core Lesson Student Learning Objectives: SWBAT use place value to describe the values of digits in numbers to 1,000.

Core Lesson Essential Questions: How do you know the values of the digits in numbers? E

Topic: Lesson 19: Chapter 2 Lesson 6 - Number Names (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 6 - Number Names

Core Lesson Student Learning Objectives: SWBAT read and write 3-digit numbers in word form.

Core Lesson Essential Questions: How do you write a 3-digit numbers using words? I

Topic: Lesson 20: Chapter 2 Lesson 7 - Different Forms of Numbers (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 7 - Different Forms of Numbers

Core Lesson Student Learning Objectives: SWBAT write 3-digit numbers in expanded form and in standard form.

Core Lesson Essential Questions: What are three ways to write a 3-digit number? E

Topic: Lesson 21: Chapter 2 Lesson 8 - Different Ways to Show Numbers (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 8 - Different Ways to Show Numbers

Core Lesson Student Learning Objectives: SWBAT apply place value concepts to find equivalent representations of numbers.

Core Lesson Essential Questions: How can you use blocks or quick pictures to show the value of a number in different ways? I

Topic: Lesson 22: Chapter 2 Lesson 9 - Count On and Count Back by 10 and 100 (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 9 - Count On and Count Back by 10 and 100

Core Lesson Student Learning Objectives: SWBAT identify 10 more, 10 less, 100 more, or 100 less than a given number.

Core Lesson Essential Questions: How do you use place value to find 10 more, 10 less, 100 more, or 100 less than a 3-digit number? E

Topic: Lesson 23: Chapter 2 Lesson 10 - Numbers Patterns (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 10 - Number Patterns

Core Lesson Student Learning Objectives: SWBAT extend number patterns by counting on by tens or hundreds.

Core Lesson Essential Questions: How does place value help you identify and extend counting patterns? E

Topic: Lesson 24: Chapter 2 Lesson 11 - Problem Solving Compare Numbers (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 11 - Problem Solving Compare Numbers

Core Lesson Student Learning Objectives: SWBAT solve problems involving number comparisons by using the strategy make a model.

Core Lesson Essential Questions: How can you make a model to solve a problem about comparing numbers? E

Topic: Lesson 25: Chapter 2 Lesson 12 - Algebra Compare Numbers (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Lesson 12 - Algebra Compare Numbers

Core Lesson Student Learning Objectives: SWBAT compare 3-digit numbers using >, =, and < symbols.

Core Lesson Essential Questions: How do you compare 3-digit numbers? I

Topic: Lesson 26: Chapter 2 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Review

Core Lesson Student Learning Objectives: SWBAT use place value to model, write, and compare 3-digit numbers.

Core Lesson Essential Questions: How can you use place value to model, write, and compare 3-digit numbers?

Topic: Lesson 12: Chapter 1 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Test

Core Lesson

Student Learning Objectives: SWBAT use place value to find the values of numbers and describe numbers in different ways.

Core Lesson Essential Questions: How do you use place value to find the values of numbers and describe numbers in different ways?

Topic: Lesson 27: Chapter 2 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 2 Test

Core Lesson Student Learning Objectives: SWBAT use place value to model, write, and compare 3-digit numbers.

Core Lesson Essential Questions: How can you use place value to model, write, and compare 3-digit numbers?

Unit: Addition and Subtraction

Month: November, December, January

Skills:

1. Add up to four two-digit numbers using strategies based on place value and properties of operations
2. Add and subtract within 1000
3. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds
4. Explain why addition and subtraction strategies work, using place value and the properties of operations

Essential Questions:

1. How is mathematics used to quantify, compare, represent, and model numbers?
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 makes 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: A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

CC.2.1.2.B.3 (Advanced)	Use place-value understanding and properties of operations to add and subtract within 1000.

(* standards consolidated from Topic level)

Topic: Lesson 42: Chapter 4 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Introduction

Core Lesson Student Learning Objectives: SWBAT use place value to add 2-digit numbers and use different ways to add 2-digit numbers.

Core Lesson Essential Questions: How do you use place value to add 2-digit numbers, and what are some different ways to add 2-digit numbers?

STANDARDS

STATE: PA Core Standards (2014)

CC.2.1.2.B.3 (Advanced) Use place-value understanding and properties of operations to add and subtract within 1000.

Topic: Lesson 43: Chapter 4 Lesson 1 - Break Apart Ones to Add (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 1 - Break Apart Ones to Add

Core Lesson Student Learning Objectives: SWBAT find a sum by breaking apart a 1-digit addend to make a 2-digit addend a multiple of 10.

Core Lesson Essential Questions: How does breaking apart a number make it easier to add? E

Topic: Lesson 44: Chapter 4 Lesson 2 - Use Compensation (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 2 - Use Compensation

Core Lesson Student Learning Objectives: SWBAT use compensation to develop flexible thinking for 2-digit addition.

Core Lesson Essential Questions: How can you make an addend a ten to help solve an addition problem? I

Topic: Lesson 45: Chapter 4 Lesson 3 - Break Apart Addends as Tens and Ones (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 3 - Break Apart Addends as Tens and Ones

Core Lesson Student Learning Objectives: SWBAT apply place value concepts when using a break apart strategy for 2-digit addition.

Core Lesson Essential Questions: How do you break apart addends to add tens and then add ones? I

Topic: Lesson 46: Chapter 4 Lesson 4 - Model Regrouping for Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 4 - Model Regrouping for Addition

Core Lesson Student Learning Objectives: SWBAT model 2-digit addition with regrouping.

Core Lesson

Essential Questions: When do you regroup in addition? E

Topic: Lesson 47: Chapter 4 Lesson 5 - Model and Record 2-Digit Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 5 - Model and Record 2-Digit Addition

Core Lesson Student Learning Objectives: SWBAT draw quick pictures and record 2-digit addition using the standard algorithm.

Core Lesson Essential Questions: How do you record 2-digit addition? E

Topic: Lesson 48: Chapter 4 Lesson 6 - 2-Digit Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 6 - 2-Digit Addition

Core Lesson Student Learning Objectives: SWBAT record 2-digit addition using the standard algorithm.

Core Lesson Essential Questions: How do you record the steps when adding 2-digit numbers? E

Topic: Lesson 49: Chapter 4 Lesson 7 - Practice 2-Digit Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 7 - Practice 2-Digit Addition

Core Lesson Student Learning Objectives: SWBAT practice 2-digit addition with and without regrouping.

Core Lesson Essential Questions: How do you record the steps when adding 2-digit numbers? E

Topic: Lesson 50: Chapter 4 Lesson 8 - Rewrite 2-Digit Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 8 - Rewrite 2-Digit Addition

Core Lesson Student Learning Objectives: SWBAT rewrite horizontal addition problems vertically in the standard algorithm format

Core Lesson Essential Questions: What are two different ways to write addition problems? E

Topic: Lesson 53: Chapter 4 Lesson 11 - Find Sums for 3 Addends (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 11 - Find Sums for 3 Addends

Core Lesson Student Learning Objectives: SWBAT find sums of three 2-digit numbers.

Core Lesson Essential Questions: What are some ways to add 3 numbers? E

Topic: Lesson 54: Chapter 4 Lesson 12 - Find Sums for 4 Addends (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 12 - Find Sums for 4 Addends

Core Lesson Student Learning Objectives: SWBAT find sums of four 2-digit numbers.

Core Lesson Essential Questions: What are some ways to add 4 numbers? E

Topic: Lesson 55: Chapter 4 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Review

Core Lesson Student Learning Objectives: SWBAT use place value to add 2-digit numbers and use some different ways to add 2-digit numbers.

Core Lesson Essential Questions: How do you use place value to add 2-digit numbers, and what are some different ways to add 2-digit numbers?

Topic: Lesson 56: Chapter 4 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Test

Core Lesson Student Learning Objectives: SWBAT use place value to add 2-digit numbers and use some different ways to add 2-digit numbers.

Core Lesson Essential Questions: How do you use place value to add 2-digit numbers, and what are some different ways to add 2-digit numbers?

Topic: Lesson 57: Chapter 5 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Introduction

Core Lesson Student Learning Objectives: SWBAT use place value to subtract 2-digit numbers with and without regrouping.

Core Lesson

Essential Questions: How do you use place value to subtract 2-digit numbers with and without regrouping?

Topic: Lesson 58: Chapter 5 Lesson 1 - Break Apart Ones to Subtract (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 1 - Break Apart Ones to Subtract

Core Lesson Student Learning Objectives: SWBAT break apart a 1-digit subtrahend to subtract it from a 2-digit number.

Core Lesson Essential Questions: How does breaking apart a number make subtracting easier? I

Topic: Lesson 59: Chapter 5 Lesson 2 - Break Apart Numbers to Subtract (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 2 - Break Apart Numbers to Subtract

Core Lesson Student Learning Objectives: SWBAT break apart a 2-digit subtrahend to subtract it from a 2-digit number.

Core Lesson Essential Questions: How does breaking apart a number make subtracting easier? I

Topic: Lesson 60: Chapter 5 Lesson 3 - Model Regrouping for Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 3 - Model Regrouping for Subtraction

Core Lesson Student Learning Objectives: SWBAT model 2-digit subtraction with regrouping.

Core Lesson Essential Questions: When do you regroup in subtraction? E

Topic: Lesson 61: Chapter 5 Lesson 4 - Model and Record 2-Digit Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 4 - Model and Record 2-Digit Subtraction

Core Lesson Student Learning Objectives: SWBAT draw quick pictures and record 2-digit subtraction using the standard algorithm.

Core Lesson Essential Questions: How do you record 2-digit subtraction? E

Topic: Lesson 62: Chapter 5 Lesson 5 - 2-Digit Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 5 - 2-Digit Subtraction

Core Lesson Student Learning Objectives: SWBAT record 2-digit subtraction using the standard algorithm.

Core Lesson Essential Questions: How do you record the steps when subtracting 2-digit numbers? E

Topic: Lesson 63: Chapter 5 Lesson 6 - Practice 2-Digit Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 6 - Practice 2-Digit Subtraction

Core Lesson Student Learning Objectives: SWBAT practice 2-digit subtraction with and without regrouping.

Core Lesson Essential Questions: How do you record the steps when subtracting 2-digit numbers? E

Topic: Lesson 64: Chapter 5 Lesson 7 - Rewrite 2-Digit Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 7 - Rewrite 2-Digit Subtraction

Core Lesson Student Learning Objectives: SWBAT rewrite horizontal subtraction problems vertically in the standard algorithm format.

Core Lesson Essential Questions: What are two different ways to write subtraction problems? E

Topic: Lesson 65: Chapter 5 Lesson 8 - Add to Find Differences (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 8 - Add to Find Differences

Core Lesson Student Learning Objectives: SWBAT use addition to find differences.

Core Lesson Essential Questions: How can you use addition to solve subtraction problems? I

Topic: Lesson 69: Chapter 5 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Review

Core Lesson Student Learning Objectives: SWBAT use place value to subtract 2-digit numbers with and without regrouping.

Core Lesson

Essential Questions: How do you use place value to subtract 2-digit numbers with and without regrouping?

Topic: Lesson 70: Chapter 5 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Test

Core Lesson Student Learning Objectives: SWBAT use place value to subtract 2-digit numbers with and without regrouping.

Core Lesson Essential Questions: How do you use place value to subtract 2-digit numbers with and without regrouping?

Topic: Lesson 71: Chapter 6 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Introduction

Core Lesson Student Learning Objectives: SWBAT use strategies for adding and subtracting 3-digit numbers.

Core Lesson Essential Questions: What are some strategies for adding and subtracting 3-digit numbers?

Topic: Lesson 72: Chapter 6 Lesson 1 - Draw to Represent 3-Digit Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 1 - Draw to Represent 3-Digit Addition

Core Lesson Student Learning Objectives: SWBAT draw quick pictures to represent 3-digit addition.

Core Lesson Essential Questions: How do you draw quick pictures to show adding 3-digit numbers? E

Topic: Lesson 73: Chapter 6 Lesson 2 - Break Apart 3-Digit Addends (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 2 - Break Apart 3-Digit Addends

Core Lesson Student Learning Objectives: SWBAT apply place value concepts when using a break apart strategy for 3-digit addition.

Core Lesson Essential Questions: How do you break apart addends to add hundreds, tens, and then ones? I

Topic: Lesson 74: Chapter 6 Lesson 3 - 3-Digit Addition: Regroup Ones (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 3 - 3-Digit Addition: Regroup Ones

Core Lesson Student Learning Objectives: SWBAT record 3-digit addition using the standard algorithm with possible regrouping of ones.

Core Lesson Essential Questions: When do you regroup ones in addition? E

Topic: Lesson 75: Chapter 6 Lesson 4 - 3-Digit Addition: Regroup Tens (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 4 - 3-Digit Addition: Regroup Tens

Core Lesson Student Learning Objectives: SWBAT record 3-digit addition using the standard algorithm with possible regrouping of tens.

Core Lesson Essential Questions: When do you regroup tens in addition? E

Topic: Lesson 76: Chapter 6 Lesson 5 - Addition: Regroup Ones and Tens (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 5 - Addition: Regroup Ones and Tens

Core Lesson Student Learning Objectives: SWBAT record 3-digit addition using the standard algorithm with possible regrouping of ones and tens.

Core Lesson Essential Questions: How do you know when to regroup in addition? E

Topic: Lesson 77: Chapter 6 Lesson 6 - Problem Solving 3-Digit Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 6 - Problem Solving 3-Digit Subtraction

Core Lesson Student Learning Objectives: SWBAT solve problems involving 3-digit subtraction by using the strategy make a model.

Core Lesson Essential Questions: How can making a model help when solving subtraction problems? E

Topic: Lesson 78: Chapter 6 Lesson 7 - 3-Digit Subtraction: Regroup Tens (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 7 - 3-Digit Subtraction: Regroup Tens

Core Lesson Student Learning Objectives: SWBAT record 3-digit subtraction using the standard algorithm with possible regrouping of tens.

Core Lesson

Essential Questions: When do you regroup tens in subtraction? E

Topic: Lesson 79: Chapter 6 Lesson 8 - 3-Digit Subtraction: Regroup Hundreds (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 8 - 3-Digit Subtraction: Regroup Hundreds

Core Lesson Student Learning Objectives: SWBAT record 3-digit subtraction using the standard algorithm with possible regrouping of hundreds.

Core Lesson Essential Questions: When do you regroup hundreds in subtraction? E

Topic: Lesson 80: Chapter 6 Lesson 9 - Subtraction: Regroup Hundreds and Tens (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 9 - Subtraction: Regroup Hundreds and Tens

Core Lesson Student Learning Objectives: SWBAT record 3-digit using the standard algorithm with possible regrouping of both hundreds and tens.

Core Lesson Essential Questions: How do you know when to regroup in subtraction? E

Topic: Lesson 81: Chapter 6 Lesson 10 - Regrouping with Zeros (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Lesson 10 - Regrouping with Zeros

Core Lesson Student Learning Objectives: SWBAT record subtraction using the standard algorithm when there are zeros in the minuend.

Core Lesson Essential Questions: How do you regroup when there are zeros in the number you start with? E

Topic: Lesson 82: Chapter 6 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Review

Core Lesson Student Learning Objectives: SWBAT use strategies for adding and subtracting 3-digit numbers.

Core Lesson Essential Questions: What are some strategies for adding and subtracting 3-digit numbers?

Topic: Lesson 83: Chapter 6 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 6 Test

Core Lesson Student Learning Objectives: SWBAT use strategies for adding and subtracting 3-digit numbers.

Core Lesson Essential Questions: What are some strategies for adding and subtracting 3-digit numbers?

Unit: Addition and Subtraction

Month: October, November, December

Skills:

1. Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20
3. Understand subtraction as an unknown-addend problem. For example, subtract 10-8 by finding the number that makes 10 when added to 8
4. Add and subtract within 20. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums

Essential Questions:

1. How is mathematics used to quantify, compare, represent, and model numbers?
2. How can mathematics support effective communication?
3. How are relationships represented mathematically?
4. How can expressions, equations and inequalities be used to quantify, solve, model, and/or analyze mathematical situations?
5. How can recognizing repetition or regularity assist in solving problems more efficiently?

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. Patterns exhibit relationships that can be extended, described, and generalized

Vocabulary:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 36: Chapter 3 Lesson 8 - Use Drawings to Represent Problems (I)

Minutes for Topic: 60

Core Lesson Description:	Chapter 3 Lesson 8 - Use Drawings to Represent Problems
Core Lesson Student Learning Objectives:	SWBAT use bar models to represent a variety of addition and subtractions situations.
Core Lesson Essential Questions:	How are bar models used to show addition and subtraction problems? I

Topic: Lesson 37: Chapter 3 Lesson 9 - Use Equations to Represent Problems (E)

Minutes for Topic: 60

Core Lesson Description:	Chapter 3 Lesson 9 - Use Equations to Represent Problems
Core Lesson Student Learning Objectives:	SWBAT write equations to represent and solve a variety of addition and subtraction situations.
Core Lesson Essential Questions:	How are numbers sentences used to show addition and subtraction situations? E

Topic: Lesson 51: Chapter 4 Lesson 9 - Problem Solving Addition (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 9 - Problem Solving Addition

Core Lesson Student Learning Objectives: SWBAT solve problems involving 2-digit addition by using the strategy draw a diagram.

Core Lesson Essential Questions: How can using a model help when solving addition problems? I

Topic: Lesson 52: Chapter 4 Lesson 10 - Write Equations to Represent Addition (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 4 Lesson 10 - Write Equations to Represent Addition

Core Lesson Student Learning Objectives: SWBAT represent addition situations with number sentences using a symbol for the unknown number.

Core Lesson Essential Questions: How do you write a number sentence to represent a problem? E

Topic: Lesson 66: Chapter 5 Lesson 9 - Problem Solving Subtraction (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 9 - Problem Solving Subtraction

Core Lesson Student Learning Objectives: SWBAT solve problems involving 2-digit subtraction by using the strategy draw a diagram.

Core Lesson Essential Questions: How can drawing a diagram help when solving subtraction problems? I

Topic: Lesson 67: Chapter 5 Lesson 10 - Write Equations to Represent Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 10 - Write Equations to Represent Subtraction

Core Lesson Student Learning Objectives: SWBAT represent subtraction situations with number sentences using a symbol for the unknown.

Core Lesson Essential Questions: How do you write a number sentence to represent a problem? E

Topic: Lesson 68: Chapter 5 Lesson 11 - Solve Multistep Problems (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 5 Lesson 11 - Solve Multistep Problems

Core Lesson Student Learning Objectives: SWBAT analyze word problems to determine what operations to use to solve multistep problems.

Core Lesson Essential Questions: How do you decide what steps to do to solve a problem? E

Unit: Properties of Operations

Month: October, November

Skills:

1. Fluently add and subtract within 20 using mental strategies
2. Apply properties of operations as strategies to add and subtract (commutative property of addition; associative property of addition)

Essential Questions:

1. How is mathematics used to quantify, compare, represent, and model numbers?
2. How can mathematics support effective communication?
3. How are relationships represented mathematically?
4. How can expressions, equations and inequalities be used to quantify, solve, model, and/or analyze mathematical situations?
5. 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. Patterns exhibit relationships that can be extended, described, and generalized

Vocabulary:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

CC.2.2.2.A.2 (Advanced) Use mental strategies to add and subtract within 20.

(* standards consolidated from Topic level)

Topic: Lesson 28: Chapter 3 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Introduction

Core Lesson Student Learning Objectives: SWBAT use patterns and strategies to find sum and differences for basic facts.

Core Lesson Essential Questions: How can you use patterns and strategies to find sums and differences for basic facts?

STANDARDS

STATE: PA Core Standards (2014)

CC.2.2.2.A.2 (Advanced) Use mental strategies to add and subtract within 20.

Topic: Lesson 29: Chapter 3 Lesson 1 - Use Double Facts (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 1 - Use Double Facts

Core Lesson Student Learning Objectives: SWBAT use double facts as a strategy for finding sums for near doubles facts.

Core Lesson

Essential Questions: How can you use doubles facts to find sums for near double facts? E

Topic: Lesson 30: Chapter 3 Lesson 2 - Practice Addition Facts (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 2 - Practice Addition Facts

Core Lesson Student Learning Objectives: SWBAT recall sums for basic facts using properties and strategies.

Core Lesson Essential Questions: What are some ways to remember sums? E

Topic: Lesson 32: Chapter 3 Lesson 4 - Add 3 Addends (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 4 - Add 3 Addends

Core Lesson Student Learning Objectives: SWBAT find sums of three addends by applying Commutative and Associative Properties.

Core Lesson Essential Questions: How do you add three numbers? E

Topic: Lesson 31: Chapter 3 Lesson 3 - Make a Ten to Add (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 3 - Make a Ten to Add

Core Lesson Student Learning Objectives: SWBAT recall sums for addition facts using the make a ten strategy.

Core Lesson Essential Questions: How is the make a ten strategy used to find sums? I

Topic: Lesson 33: Chapter 3 Lesson 5 - Relate Addition and Subtraction (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 5 - Relate Addition and Subtraction

Core Lesson Student Learning Objectives: SWBAT use the inverse relationship of addition and subtraction to recall basic facts.

Core Lesson Essential Questions: How are addition and subtraction related? E

Topic: Lesson 34: Chapter 3 Lesson 6 - Practice Subtraction Facts (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 6 - Practice Subtraction Facts

Core Lesson Student Learning Objectives: SWBAT recall differences for basic facts using mental strategies.

Core Lesson Essential Questions: What are some ways to remember differences? E

Topic: Lesson 35: Chapter 3 Lesson 7 - Use Ten to Subtract (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 7 - Use Ten to Subtract

Core Lesson Student Learning Objectives: SWBAT find differences on a number line to develop the mental strategies of decomposing to simplify facts.

Core Lesson Essential Questions: How does getting to 10 in subtraction help when finding differences? I

Topic: Lesson 40: Chapter 3 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Review

Core Lesson Student Learning Objectives: SWBAT use patterns and strategies to find sums and differences for basic facts.

Core Lesson Essential Questions: How can you use patterns and strategies to find sums and differences for basic facts?

Topic: Lesson 41: Chapter 3 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Test

Core Lesson Student Learning Objectives: SWBAT use patterns and strategies to find sums and differences for basic facts.

Core Lesson Essential Questions: ow can you use patterns and strategies to find sums and differences for basic facts?

Unit: Equal Groups of Objects

Month: September, October

Skills:

1. Determine whether a group of objects (up to 20) has an odd or even number of members and write an equation to express an even number as a sum of two equal addends
2. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends

Essential Questions:

1. How is mathematics used to quantify, compare, represent, and model numbers?
2. How are relationships represented mathematically?
3. 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. Patterns exhibit relationships that can be extended, described and generalized

Vocabulary:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

CC.2.2.2.A.3 (Advanced)	Work with equal groups of objects to gain foundations for multiplication.

(* standards consolidated from Topic level)

Topic: Lesson 2: Chapter 1 Lesson 1 - Even and Odd Numbers (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 1 Lesson 1 - Even and Odd Numbers

Core Lesson Student Learning Objectives: SWBAT classify numbers up to 20 as even or odd.

Core Lesson Essential Questions: How are even numbers and odd numbers different? E

STANDARDS

STATE: PA Core Standards (2014)

CC.2.2.2.A.3 (Advanced)	Work with equal groups of objects to gain foundations for multiplication.

Topic: Lesson 3: Chapter 1 Lesson 2 - Represent Even Numbers (I)

Core Lesson Description: Chapter 1 Lesson 2 - Represent Even Numbers

Core Lesson Student Learning Objectives: SWBAT write equations with equal addends to represent even numbers.

Core Lesson Essential Questions: Why can an even number be shown as the sum of two equal addends? I

Topic: Lesson 38: Chapter 3 Lesson 10 - Equal Groups (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 3 Lesson 10 - Equal Groups

Core Lesson Student Learning Objectives: SWBAT solve problems involving equal groups by using the strategy act it out.

Core Lesson Essential Questions: How can acting it out help with solving a problem about equal groups? I

Topic: Lesson 39: Chapter 3 Lesson 11 - Repeated Addition (I)

Minutes for Topic: 60

Core Lesson Description:	Chapter 3 Lesson 11 - Repeated Addition
Core Lesson Student Learning Objectives:	SWBAT write equations using repeated addition to find the total number of objects in arrays.
Core Lesson Essential Questions:	How can you write an addition sentence for problems with equal groups? I

Unit: Shape Attributes

Month: April, May

Skills:

1. Recognize and draw shapes having specific attributes
2. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes

Essential Questions:

1. How can patterns be used to describe relationships in mathematical situations?
2. How can recognizing repetition or regularity assist in solving problems more efficiently?
3. How are spatial relationships, including shape and dimension, used to draw, construct, model and represent real situations or solve problems?

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:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 130: Chapter 11 Introduction

Minutes for Topic: 60

Core Lesson Description:	Chapter 11 Introduction
Core Lesson Student Learning Objectives:	SWBAT identify two-dimensional and three-dimensional shapes and show equal parts.
Core Lesson Essential Questions:	What are some two-dimensional shapes and three-dimensional shapes, and how can you show equal parts of shapes?

Topic: Lesson 131: Chapter 11 Lesson 1 - Three-Dimensional Shapes (E)

Minutes for Topic: 60

Core Lesson Description:	Chapter 11 Lesson 1 - Three-Dimensional Shapes
Core Lesson Student Learning Objectives:	SWBAT identify three-dimensional shapes.
Core Lesson Essential Questions:	What objects match three-dimensional shapes? E

Topic: Lesson 132: Chapter 11 Lesson 2 - Attributes of Three-Dimensional Shapes (E)

Minutes for Topic: 60

Core Lesson Description:	Chapter 11 Lesson 2 - Attributes of Three-Dimensional Shapes
Core Lesson Student Learning Objectives:	SWBAT identify and describe three-dimensional shapes according to the number of faces, edges, and vertices.

Core Lesson Essential Questions: How would you describe the faces of a rectangular prism and the faces of a cube? E

Topic: Lesson 133: Chapter 11 Lesson 3 - Build Three-Dimensional Shapes (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 3 - Build Three-Dimensional Shapes

Core Lesson Student Learning Objectives: SWBAT build three-dimensional shapes using cubes and other objects.

Core Lesson Essential Questions: How can you build a rectangular prism? E

Topic: Lesson 134: Chapter 11 Lesson 4 - Two-Dimensional Shapes (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 4 - Two-Dimensional Shapes

Core Lesson Student Learning Objectives: SWBAT name 3, 4, 5, and 6-sided shapes according to the number of sides and vertices.

Core Lesson Essential Questions: What shapes can you name just by knowing the number of sides and vertices? E

Topic: Lesson 135: Chapter 11 Lesson 5 - Angles in Two-Dimensional Shapes (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 5 - Angles in Two-Dimensional Shapes

Core Lesson Student Learning Objectives: SWBAT identify angles in two-dimensional shapes.

Core Lesson Essential Questions: How do you find and count angles in two-dimensional shapes? E

Topic: Lesson 136: Chapter 11 Lesson 6 - Sort Two-Dimensional Shapes (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 6 - Sort Two-Dimensional Shapes

Core Lesson Student Learning Objectives: SWBAT sort two-dimensional shapes according to their attributes.

Core Lesson Essential Questions: How do you use the number of sides and angles to sort two-dimensional shapes? I

Unit: Fractions

Month: May

Skills:

1. Partition circles and rectangles into two, three or four equal shares
2. Recognize that equal shares of identical wholes need not have the same shape

Essential Questions:

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

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:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 137: Chapter 11 Lesson 7 - Partition Rectangles (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 7 - Partition Rectangles

Core Lesson Student Learning Objectives: SWBAT partition rectangles into equal size squares and find the total number of these squares.

Core Lesson Essential Questions: How do you find the total number of same-size squares that will cover a rectangle? E

Topic: Lesson 138: Chapter 11 Lesson 8 - Equal Parts (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 8 - Equal Parts

Core Lesson Student Learning Objectives: SWBAT identify and name equal parts of circles and rectangles as halves, thirds, or fourths.

Core Lesson Essential Questions: What are halves, thirds, and fourths of a whole? E

Topic: Lesson 139: Chapter 11 Lesson 9 - Equal Parts of a Whole (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 9 - Equal Parts of a Whole

Core Lesson Student Learning Objectives: SWBAT partition shapes to show halves, thirds, or fourths.

Core Lesson Essential Questions: How do you know if a shape shows halves, thirds, or fourths? E

Topic: Lesson 140 - Chapter 11 Lesson 10 - Describe Equal Parts (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 10 - Describe Equal Parts

Core Lesson

Student Learning Objectives: SWBAT identify and describe one equal part as a half of, a third of, or a fourth of a whole.

Core Lesson Essential Questions: How do you find a half of, a third of, or a fourth of a whole? E

Topic: Lesson 141: Chapter 11 Lesson 11 - Equal Shares (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Lesson 11 - Equal Shares

Core Lesson Student Learning Objectives: SWBAT solve problems involving wholes divided into equal shares by using the strategy draw a diagram.

Core Lesson Essential Questions: How can drawing a diagram help when solving problems about equal shares? I

Topic: Lesson 142: Chapter 11 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Review

Core Lesson Student Learning Objectives: SWBAT describe some two-dimensional and three-dimensional shapes and describe equal parts of shapes.

Core Lesson Essential Questions: What are some two-dimensional shapes and three-dimensional shapes, and how can you show equal parts of shapes?

Topic: Lesson 143: Chapter 11 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 11 Test

Core Lesson Student Learning Objectives: SWBAT describe some two-dimensional and three-dimensional shapes and describe equal parts of shapes.

Core Lesson Essential Questions: What are some two-dimensional shapes and three-dimensional shapes, and how can you show equal parts of shapes?

Unit: Measurement

Month: March, April

Skills:

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
2. Measure the same length with different-sized units then discuss the measurements made with the smaller unit is more than the measurement made with the larger unit and vice versa
3. Estimate lengths using units of inches, feet, centimeters, and meters
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit

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. Why does "what" we measure influence "how" we measure?
5. In what ways are the mathematical attributes of objects of processes measured, calculated and/or interpreted?
6. 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:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 99: Chapter 8 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Introduction

Core Lesson Student Learning Objectives: SWBAT identify some of the methods and tools that can be used to estimate and measure length.

Core Lesson Essential Questions: What are some of the methods and tools that can be used to estimate and measure length?

Topic: Lesson 100: Chapter 8 Lesson 1 - Measure with Inch Models (C)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 1 - Measure with Inch Models

Core Lesson Student Learning Objectives: SWBAT use concrete models to measure the lengths of objects in inches.

Core Lesson Essential Questions: How can you use inch models to measure length? C

Topic: Lesson 101: Chapter 8 Lesson 2 - Make and Use a Ruler (C)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 2 - Make and Use a Ruler

Core Lesson Student Learning Objectives: SWBAT make an inch ruler and use it to measure the lengths of objects.

Core Lesson Essential Questions: Why is using a ruler similar to using a row of color tiles to measure length? C

Topic: Lesson 102: Chapter 8 Lesson 3 - Estimate Lengths in Inches (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 3 - Estimate Lengths in Inches

Core Lesson Student Learning Objectives: SWBAT estimate the lengths of objects by mentally partitioning the lengths into inches.

Core Lesson Essential Questions: How do you estimate the lengths of objects in inches? I

Topic: Lesson 103: Chapter 8 Lesson 4 - Measure with an Inch Ruler (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 4 - Measure with an Inch Ruler

Core Lesson Student Learning Objectives: SWBAT measure the lengths of objects to the nearest inch using an inch ruler.

Core Lesson Essential Questions: How do you use an inch ruler to measure lengths? E

Topic: Lesson 105: Chapter 8 Lesson 6 - Measure in Inches and Feet (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 6 - Measure in Inches and Feet

Core Lesson Student Learning Objectives: SWBAT measure the lengths of objects in both inches and feet to explore the inverse relationship between size and number of units.

Core Lesson Essential Questions: Why is measuring in feet different from measuring in inches? E

Topic: Lesson 106: Chapter 8 Lesson 7 - Estimate Lengths in Feet (C)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 7 - Estimate Lengths in Feet

Core Lesson Student Learning Objectives: SWBAT estimate the lengths of objects in feet.

Core Lesson Essential Questions: How do you estimate the lengths of objects in feet? C

Topic: Lesson 107: Chapter 8 Lesson 8 - Choose a Tool (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 8 - Choose a Tool

Core Lesson Student Learning Objectives: SWBAT select appropriate tools for measuring different lengths.

Core Lesson Essential Questions: How do you choose a measuring tool to use when measuring lengths? E

Topic: Lesson 109: Chapter 8 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Review

Core Lesson Student Learning Objectives: SWBAT identify some of the methods and tools that can be used to estimate and measure length.

Core Lesson Essential Questions: What are some of the methods and tools that can be used to estimate and measure length?

Topic: Lesson 110: Chapter 8 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Test

Core Lesson Student Learning Objectives: SWBAT identify some of the methods and tools that can be used to estimate and measure length.

Core Lesson Essential Questions: What are some of the methods and tools that can be used to estimate and measure length?

Topic: Lesson 111: Chapter 9 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Introduction

Core Lesson Student Learning Objectives: SWBAT identify some of the methods and tools that can be used to estimate and measure length in metric units.

Core Lesson Essential Questions: What are some of the methods and tools that can be used to estimate and measure length in metric units?

Topic: Lesson 112: Chapter 9 Lesson 1 - Measure with a Centimeter Model (C)

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Lesson 1 - Measure with a Centimeter Model

Core Lesson Student Learning Objectives: SWBAT use a concrete model to measure the lengths of objects in centimeters.

Core Lesson Essential Questions: How do you use a centimeter model to measure the lengths of objects? C

Topic: Lesson 113: Chapter 9 Lesson 2 - Estimate Lengths in Centimeters (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Lesson 2 - Estimate Lengths in Centimeters

Core Lesson Student Learning Objectives: SWBAT estimate lengths of objects in centimeters by comparing them to known lengths.

Core Lesson Essential Questions: How do you use known lengths to estimate unknown lengths? I

Topic: Lesson 114: Chapter 9 Lesson 3 - Measure with a Centimeter Ruler (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Lesson 3 - Measure with a Centimeter Ruler

Core Lesson Student Learning Objectives: SWBAT measure lengths of objects to the nearest centimeter using a centimeter ruler.

Core Lesson Essential Questions: How do you use a centimeter ruler to measure lengths? E

Topic: Lesson 116: Chapter 9 Lesson 5 - Centimeters and Meters (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Lesson 5 - Centimeters and Meters

Core Lesson Student Learning Objectives: SWBAT measure the lengths of objects in both centimeters and meters to explore the inverse relationship between size and number of units.

Core Lesson Essential Questions: How is measuring in meters different from measuring in centimeters? E

Topic: Lesson 117: Chapter 9 Lesson 6 - Estimate Lengths in Meters (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Lesson 6 - Estimate Lengths in Meters

Core Lesson Student Learning Objectives: SWBAT estimate the lengths of objects in meters.

Core Lesson Essential Questions: How do you estimate the lengths of objects in meters? I

Topic: Lesson 118: Chapter 9 Lesson 7 - Measure and Compare Lengths (I)

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Lesson 7 - Measure and Compare Lengths

Core Lesson Student Learning Objectives: SWBAT measure and then find the difference in the lengths of two objects.

Core Lesson Essential Questions: How do you find the differences between the lengths of two objects? I

Topic: Lesson 119: Chapter 9 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Review

Core Lesson Student Learning Objectives: SWBAT identify some of the methods and tools that can be used to estimate and measure length in metric units.

Core Lesson Essential Questions: What are some of the methods and tools that can be used to estimate and measure length in metric units?

Topic: Lesson 120 - Chapter 9 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 9 Test

Core Lesson Student Learning Objectives: SWBAT identify some of the methods and tools that can be used to estimate and measure length in metric units.

Core Lesson Essential Questions: What are some of the methods and tools that can be used to estimate and measure length in metric units?

Unit: Time and Money

Month: January, February

Skills:

1. Tell and write time from analog and digital clocks to the nearest five minutes
2. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols correctly

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?

Content:

1. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools

Vocabulary:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 84: Chapter 7 Introduction

Minutes for Topic: 60

Core Lesson Description:	Chapter 7 Introduction
Core Lesson Student Learning Objectives:	SWBAT use the values of coins and bills to find the total value of a group of money AND read times shown on analog and digital clocks.
Core Lesson Essential Questions:	How do you use the values of coins and bills to find the total value of a group of money, and how do you read times shown on analog and digital clocks?

Topic: Lesson 85: Chapter 7 Lesson 1 - Dimes, Nickels, and Pennies (E)

Minutes for Topic: 60

Core Lesson Description:	Chapter 7 Lesson 1 - Dimes, Nickels, and Pennies
Core Lesson Student Learning Objectives:	SWBAT find the total values of collections of dimes, nickels, and pennies.
Core Lesson Essential Questions:	How do you find the total value of a group of dimes, nickels, and pennies? E

Topic: Lesson 86-87: Chapter 7 Lesson 2 - Quarters (E)

Minutes for Topic: 120

Core Lesson Description:	Chapter 7 Lesson 2 - Quarters

Core Lesson Student Learning Objectives: SWBAT find the total values of collections of quarters, dimes, nickels, and pennies.

Core Lesson Essential Questions: How do you find the total value of a group of coins? E

Topic: Lesson 88: Chapter 7 Lesson 3 - Count Collections (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 3 - Count Collections

Core Lesson Student Learning Objectives: SWBAT order coins in a collection by value and then find the total value.

Core Lesson Essential Questions: How do you order coins to help find the total value of a group of coins? E

Topic: Lesson 89: Chapter 7 Lesson 4 - Show Amounts in Two Ways (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 4 - Show Amounts in Two Ways

Core Lesson Student Learning Objectives: SWBAT represent money amounts less than a dollar using two different combinations of coins.

Core Lesson Essential Questions: How do you choose coins to show a money amount in different ways? E

Topic: Lesson 90: Chapter 7 Lesson 5 - One Dollar (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 5 - One Dollar

Core Lesson Student Learning Objectives: SWBAT show one dollar in a variety of ways.

Core Lesson Essential Questions: How can you show the value of one dollar with coins? E

Topic: Lesson 91: Chapter 7 Lesson 6 - Amounts Greater Than $1 (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 6 - Amounts Greater Than $1

Core Lesson Student Learning Objectives: SWBAT find and record the total value for money amounts greater than one dollar.

Core Lesson Essential Questions: How do you show money amounts greater than one dollar? E

Topic: Lesson 92: Chapter 7 Lesson 7 - Problem Solving Money (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 7 - Problem Solving Money

Core Lesson Student Learning Objectives: SWBAT solve word problems involving money by using the strategy act it out.

Core Lesson Essential Questions: How does acting it out help when solving problems about money? E

Topic: Lesson 93: Chapter 7 Lesson 8 - Time to the Hour and Half Hour (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 8 - Time to the Hour and Half Hour

Core Lesson Student Learning Objectives: SWBAT tell and write time to the hour and half hour.

Core Lesson Essential Questions: How do you tell time to the hour and half hour on a clock? E

Topic: Lesson 94: Chapter 7 Lesson 9 - Time to 5 Minutes (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 9 - Time to 5 Minutes

Core Lesson Student Learning Objectives: SWBAT tell and write time to the nearest 5 minutes.

Core Lesson Essential Questions: How do you tell and show time to five minutes? E

Topic: Lesson 95: Chapter 7 Lesson 10 - Practice Telling Time (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 10 - Practice Telling Time

Core Lesson Student Learning Objectives: SWBAT practice telling time to the nearest 5 minutes.

Core Lesson Essential Questions: What are the different ways you can read the time on a clock? E

Topic: Lesson 96: Chapter 7 Lesson 11 - A.M. and P.M. (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Lesson 11 - A.M. and P.M.

Core Lesson Student Learning Objectives: SWBAT tell and write time using A.M. and P.M.

Core Lesson Essential Questions: How do you use A.M. and P.M. to describe times? E

Topic: Lesson 97: Chapter 7 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Review

Core Lesson Student Learning Objectives: SWBAT use the values of coins and bills to find the total value of a group of money AND read times shown on analog and digital clocks.

Core Lesson Essential Questions: How do you use the values of coins and bills to find the total value of a group of money, and how do you read times shown on analog and digital clocks?

Topic: Lesson 98: Chapter 7 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 7 Test

Core Lesson Student Learning Objectives: SWBAT use the values of coins and bills to find the total value of a group of money AND read times shown on analog and digital clocks.

Core Lesson Essential Questions: How do you use the values of coins and bills to find the total value of a group of money, and how do you read times shown on analog and digital clocks?

Unit: Represent and Interpret Data

Month: March, April

Skills:

1. Make a line plot to show measurement data of the lengths of several objects to the nearest whole-number unit
2. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories
3. Solve simple put together, take-apart, and compare problems using information presented in the graph

Essential Questions:

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

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: A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 108: Chapter 8 Lesson 9 - Display Measurement Data (C)

Minutes for Topic: 60

Core Lesson Description: Chapter 8 Lesson 9 - Display Measurement Data

Core Lesson Student Learning Objectives: SWBAT measure the lengths of objects and use a line plot to display the measurement data.

Core Lesson Essential Questions: How can a line plot be used to show measurement data? C

Topic: Lesson 121: Chapter 10 Introduction

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Introduction

Core Lesson Student Learning Objectives: SWBAT identify tally charts, picture graphs, and bar graphs to help solve problems.

Core Lesson Essential Questions: How do tally charts, pictures graphs, and bar graphs help you solve problems?

Topic: Lesson 122: Chapter 10 Lesson 1 - Collect Data (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Lesson 1 - Collect Data

Core Lesson Student Learning Objectives: SWBAT collect data in a survey and record that data in a tally chart.

Core Lesson Essential Questions: How do you use a tally chart to record data form a survey? E

Topic: Lesson 123: Chapter 10 Lesson 2 - Read Picture Graphs (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Lesson 2 - Read Picture Graphs

Core Lesson Student Learning Objectives: SWBAT interpret data in picture graphs and use that information to solve problems.

Core Lesson Essential Questions: How do you use a picture graph to show data? E

Topic: Lesson 124: Chapter 10 Lesson 3 - Make Picture Graphs (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Lesson 3 - Make Picture Graphs

Core Lesson Student Learning Objectives: SWBAT make picture graphs to represent data.

Core Lesson Essential Questions: How do you make a picture graph to show data in a tally chart? E

Topic: Lesson 125 - Chapter 10 Lesson 4 - Read Bar Graphs (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Lesson 4 - Read Bar Graphs

Core Lesson Student Learning Objectives: SWBAT interpret data in bar graphs and use that information to solve problems.

Core Lesson Essential Questions: How is a bar graph used to show data? E

Topic: Lesson 126: Chapter 10 Lesson 5 - Make Bar Graphs (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Lesson 5 - Make Bar Graphs

Core Lesson Student Learning Objectives: SWBAT make bar graphs to represent data.

Core Lesson Essential Questions: How do you make a bar graph to show data? E

Topic: Lesson 127: Chapter 10 Lesson 6 - Display Data (E)

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Lesson 6 - Display Data

Core Lesson Student Learning Objectives: SWBAT solve problems involving data by using the strategy make a graph.

Core Lesson Essential Questions: How does making a bar graph help when solving problems about data? E

Topic: Lesson 128: Chapter 10 Review

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Review

Core Lesson Student Learning Objectives: SWBAT identify tally charts, picture graphs, and bar graphs to solve problems.

Core Lesson Essential Questions: How do tally charts, picture graphs, and bar graphs help you solve problems?

Topic: Lesson 129: Chapter 10 Test

Minutes for Topic: 60

Core Lesson Description: Chapter 10 Test

Core Lesson

Student Learning Objectives: SWBAT identify tally charts, picture graphs, and bar graphs to solve problems.

Core Lesson Essential Questions: How do tally charts, picture graphs, and bar graphs help you solve problems?

Unit: Addition and Subtraction

Month: March

Skills:

1. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units by using drawings and equations with a symbol for the unknown number to represent the problem
2. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2
3. Represent whole-number sums and differences within 100 on a number line diagram

Essential Questions:

1. What does it mean to estimate or analyze numerical quantities?
2. What makes a tool and/or strategy appropriate for a given task?
3. In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted?
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:

A.M.

Addend

Analog/Digital

Angles

Bar graph

Centimeter

Compose

Decompose

Dime

Dollar

Equation

Equivalent

Estimate

Even

Expanded form

Faces

Feet

Fractions - Thirds

Hexagon

Hundreds

Inch

Line plot

Meter

Money

Nickel

Odd

P.M.

Penny

Pentagon

Picture graph

Place value

Quadrilateral

Quarter

Sum

Topic: Lesson 104: Chapter 8 Lesson 5 - Add and Subtract in Inches (E)

Minutes for Topic: 60

Core Lesson Description:	Chapter 8 Lesson 5 - Add and Subtract in Inches
Core Lesson Student Learning Objectives:	SWBAT solve addition and subtraction problems involving the length of objects by using the strategy draw a diagram.
Core Lesson Essential Questions:	How can drawing a diagram help when solving problems about length? E

Topic: Lesson 115: Chapter 9 Lesson 4 - Add and Subtract Lengths (I)

Minutes for Topic: 60

Core Lesson Description:	Chapter 9 Lesson 4 - Add and Subtract Lengths
Core Lesson Student Learning Objectives:	SWBAT solve problems involving adding and subtracting lengths by using the strategy draw a diagram.
Core Lesson Essential Questions:	How can drawing a diagram help when solving problems about lengths? I

Unit: End of Year Assessment

Month: May

Topic: Lesson 144: End of Year Math Test

Minutes for Topic: 60

Core Lesson Description: End of Year Math Test

Topic: Lesson 145: End of Year Math Test

Minutes for Topic: 60

Core Lesson Description: End of Year Math Test