## Curriculum Map: Fifth Grade Math

Course: LLI MATH 5 Sub-topic: General
Grade(s): 5

## Course

## Description:

Delivers standards aligned math instruction that encourages students to take ownership of their learning. With the SMP (standards for mathematical practice) integrated try-discussconnect routine, students see their are many ways to approach mathematical thinking and solutions to problems. Ready classroom mathematics lessons build on prior knowledge, making connections within and across clusters and domains, grade levels, and content areas. Ready math provides questions and practice problems that solidify students' conceptual understanding before providing computational practice used to develop fluency. We will also utilize iReady student digital experience which includes an online workbook, learning games, math tools, and personalized instruction.\ 

Concepts that we will cover throughout the course of the year include: 1) whole number operations and applications; volume, multiplication, and division. 2) Decimals and fractions; place value, addition, and subtraction. 3) More decimals and fractions; multiplication and division. 4) Measurement, data, and geometry; converting units using data and classifying figures. 5) Algebraic thinking and the coordinate plan; expressions, graphing points, patterns, and relationships.\ 

## Course

Textbooks,
Workbooks,
Materials
Citations:

## Pacing

Calendar:

## Diagnostic Assessment\  (2 days)\  <br> \section*{\ }

Unit 1 Whole Number Operations and Applications: Volume, Multiplication, and Division Lesson\ (27 days)

Lesson 0 Lessons for the First Five Days\ (5 days)
Lesson 1 Understand Volume\ (3 days)
Lesson 2 Find Volume Using Unit Cubes\ (3 days)
Lesson 3 Find Volume Using Formulas\ (4 days)
Lesson 4 Multiply Whole Numbers\ (4 days)
Lesson 5 Divide Whole Numbers\ (5 days)\ 
Math in Action Solve Multiplication and Division Problems Flexibly Scheduled\ (2
days)\ 
Unit One Unit Assessment (1 day)\ 
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Unit 2 Decimals and Fractions: Place Value, Addition, and Subtraction
Lesson 6 Understand Place Value\ (3 days)
Lesson 7 Understand Powers of 10\ (3 days)
Lesson 8 Read and Write Decimals\ (4 days)\ 
Lesson 9 Compare and Round Decimals\ (4 days)
Unit 2 Mid-Unit Assessment or Digital Comprehension Check\ (1 day)
Lesson 10 Add Decimals (3 days)
Lesson 11 Subtract Decimals (4 days)
Lesson 12 Add Fractions (4 days)
Lesson 13 Subtract Fractions (4 days)

Lesson 14 Add and Subtract in Word Problems (4 days)
Math in Action Use Decimals and Fractions Flexibly Scheduled (2 days)
Unit 2 Unit Assessment or Digital Comprehension Check\ (1 day)\ 
Practice test/Diagnostic Assessment (2 days)\ 
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Unit 3 More Decimals and Fractions: Multiplication and Division
Lesson 15 Multiply a Decimal by a Whole Number (3 days)
Lesson 16 Multiply Decimals\ (4 days)
Lesson 17 Divide Decimals\ (5 days)
Unit 3 Mid-Unit Assessment or Digital Comprehension Check \#1\ (1 day)
Lesson 18 Fractions as Division (3 days)
Lesson 19 Understand Multiplication by a Fraction\ (3 days)
Lesson 20 Multiply Fractions to Find Area\ (4 days)\ 
Unit 3 Mid-Unit Assessment or Digital Comprehension Check \#2\ (1 days)
Lesson 21 Understand Multiplication as Scaling (3 days)
Lesson 22 Multiply Fractions in Word Problems\ (4 days)
Lesson 23 Understand Division with Unit Fractions\ (3 days)
Lesson 24 Divide Unit Fractions in Word Problems\ (4 days)
Math in Action Use Fractions and Decimals Flexibly Scheduled (2 days)
Unit 3 Unit Assessment or Digital Comprehension Check\ (1 day)\ 
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Unit 4 Measurement, Data, and Geometry: Converting Units, Using Data, and Classifying Figures

Lesson 25 Convert Measurement Units\ (4 days)
Lesson 26 Solve Word Problems Involving Conversions (4 days)
Lesson 27 Make Line Plots and Interpret Data\ (4 days)
\ Unit 4 Mid-Unit Assessment or Digital Comprehension Check\ (1 day)
Lesson 28 Understand Categories of Two-Dimensional Figures\ (3 days)
Lesson 29 Classify Two-Dimensional Figures\ (3 days)
Math in Action Work with Measurement and Data Flexibly Scheduled\ (2 days)
Unit 4 Unit Assessment or Digital Comprehension Check\ (1 day)\ 
\ 
Unit 5 Algebraic Thinking and the Coordinate Plane: Expressions, Graphing Points, Patterns and Relationships

Lesson 30 Evaluate, Write, and Interpret Expressions (4 days)
Lesson 31 Understand the Coordinate Plane\ (3 days)
Lesson 32 Represent Problems in the Coordinate Plane\ (4 days)
Lesson 33 Analyze Patterns and Relationships (4 days)
Math in Action Work with Coordinates and Patterns Flexibly Scheduled\ (2 days)
Unit 5 Unit Assessment or Digital Comprehension Check\ (1 day)
Practice test/Diagnostic Assessment\ (2 days)\ 

Course Ready math builds on prior knowledge, making connections between content areas. In each Interdisciplinary math Unit their are literacy connection passages and problems. Ready math also helps Connections: students develop skills that can be used across content areas such as developing relationships, communicating clearly, listening to others, and learning how to give and receive constructive feedback.

## Unit: Unit 1: Whole number operations and Applications; volume, multiplication, and division

## Timeline: Week 1 to 6

Unit
Description: This unit introduces students to finding volume and extends students\’ understanding of multiplication and division of whole numbers. Students preview the skills they will be learning in this unit and assess what they know and do not know about them. Students record their progress after completing each lesson and reflect on their learning at the end of the unit.\ 

## Unit Essential

Questions:
How can we find the volume of a solid figure using unit cubes?
What is the volume formula and how can we use it to find volume?
How can we break apart a solid figure into rectangular prisms to find its volume?
How do we use the area model to solve multi-digit multiplication and division?
How can we use partial products and quotients to find the answers to multi-digit multiplication and division?

## Unit Big Ideas:

The big ideas students will be learning are:

- Volume is the amount of space inside a three dimensional figure. Knowing how many unit cubes fit inside a figure determines its volume.
- You can use what you know about finding the area of rectangles as the first step in calculating the volume of rectangular prisms.
- You can use place value, area models, and other strategies to multiply multi-digit numbers and divide by two-digit divisors.


## Unit Materials:


#### Abstract

Lesson 0

Lesson Per student: Multiplying by Two-Digit Numbers (Sessions 1 and 2 student instructional pages), Finding Perimeter (Sessions 3 and 4 student instructional pages), Solving Area Problems (Session 5 student instructional pages)

Math Toolkit base-ten blocks, rulers, math reference sheets, grid paper Digital Math Tools Multiplication Models, Perimeter and Area Tool


Discourse Cards found in Implementation tab on the Teacher Toolbox

## Lesson 1\ 

Lesson (Required) Per pair: 24 unit cubes,\ Per group: 1 index card, 1 rectangular box
Activities Per student: 24 unit cubes, Activity Sheet: Plane and Solid Figures
Lesson 2

Lesson (Required) Per student: 12 centimeter cubes
Activities Per student: 20 inch cubes, scissors, tape Per group: 60 unit cubes
Activity Sheets: Box Template, 1-Centimeter Grid Paper
Math Toolkit unit cubes, 1-centimeter grid paper, isometric dot paper, square sticky notes

Lesson (Required) Per student: 24 unit cubes Per pair: 60 unit cubes
Activities Per student: base-ten blocks (5 hundreds flats) Per pair: 30 unit cubes, 25 inch cubes, strip of paper, 2 rectangular boxes of the same height, tape, sticky notes

Activity Sheet: L-Shaped Figures
Math Toolkit unit cubes, grid paper, isometric dot paper

## Lesson 4

Activities Per pair: base-ten blocks (2 hundreds flats, 10 tens rods, 20 ones units)
Activity Sheets: Multiplication Frame, Digit Cards
Math Toolkit base-ten blocks, base-ten grid paper, grid paper, index cards
Digital Math Tool Multiplication Models

## Lesson 5

Lesson (Required) Per student: base-ten blocks (2 hundreds flats, 30 tens rods, 10 ones units) Per pair: 10 hundreds flats, 25 tens rods, 10 ones units

Activities Per pair: base-ten blocks ( 5 hundreds flats, 20 tens rods, 32 ones units), 78 counters, 17 paper cups

For display: prepared area model for 192416532
Activity Sheet: Base-Ten Grid Paper
Math Toolkit base-ten blocks, base-ten grid paper, grid paper, index cards
Digital Math Tool Multiplication Models

Unit
Assignments: Students will complete:

- Participate in class discussion about content
- Complete daily bell ringers and exit tickets
- Complete checks for understanding throughout the lesson
- additional practice worksheets attached to each lesson
- Fluency Practice\ 
- iReady individualized instruction time\ 
\ 


## Unit Key

Terminology \& partial products - The products you get in each step of the partial-products strategy. You use Definitions: place value to find partial products. For example, the partial products for 12433 are 33100 or 300,3320 or 60, and 334 or 12 .
formula - a mathematical relationship that is expressed in the form of an equation. For example, A 5, 3 w .
cubic unit - the volume of a unit cube.
plane figure - a two-dimensional figure, such as a circle, triangle, or rectangle.
solid figure - a three-dimensional figure.
unit cube - a cube with side lengths of 1 unit. A unit cube is said to have one cubic unit of volume, and can be used to measure the volume of a solid figure.
unit square - a square with side lengths of 1 unit. A unit square is said to have one square unit of area, and can be used to measure the area of a plane figure.
volume - the amount of space inside a solid figure. Volume is measured in cubic units such as cubic inches. Review the following key terms.
area - the amount of space inside a closed two-dimensional figure. Area is measured in square units such as square centimeters.
face - a flat surface of a solid shape.
rectangular prism - a solid figure with six rectangular faces.
square unit - the area of a unit square
base (of a prism) - one side of a prism, usually considered to be the side shown as the bottom of the prism. In the volume formula $\mathrm{V} 5 \mathrm{~b} 3 \mathrm{~h}, \mathrm{~b}$ represents the area of the base of the prism.
distributive property - when one of the factors of a product is written as a sum, multiplying each addend by the other factor before adding does not change the product. For example, 33 125 (3 3 10) 1 (3 32 ).
algorithm - a set of routine steps used to solve problems. \• factor a number that is multiplied.
partial products - the products you get in each step of the partial-products strategy. You use place value to find partial products. For example, the partial products for 12433 are 33100 or 300,3320 or 60, and 334 or 12.
product - the result of multiplication.
inverse operations - operations that undo each other. For example, addition and subtraction are inverse operations, and multiplication and division are inverse operations.
dividend - the number that is divided by another number.
division - an operation used to separate a number of items into equal-sized groups. \• divisor the number by which another number is divided.
partial quotients - the quotients you get in each step of the partial-quotient strategy. You use place value to find partial quotients. For example, the partial quotients for 2,124 44 could be 2,00044 or 500,10044 or 25 , and 2444 or 6 .
quotient - the result of division.

## STANDARDS: STANDARDS

STATE: Pennsylvania State Anchors (2010)
M5.A. 1 (Advanced) Demonstrate an understanding of numbers, ways of \  representing numbers, relationships among numbers and number systems.
M5.A. 2 (Advanced) Understand the meanings of operations, use operations and \  understand how they relate to each other.
M5.A.2.1.1 Solve problems involving addition, subtraction, multiplication \  (Advanced) and division of whole numbers (multipliers up to 2 digits divisors one digit) and decimals including money (answer through hundredths - no divisors with decimals).
M5.A.2.1.3 Choose the correct operation(s) to solve a problem (no more \  (Advanced) than 2 operations).
\ 

## Topic:

## Unit: Unit 2 Decimals and Fractions; Place Value, Addition, and Subtraction

Timeline: Week 7 to 14
Unit This unit extends students\’ understanding of addition and subtraction of decimals and
Description: fractions. Students preview the skills they will be learning in this unit and assess what they know and do not know about them. Students record their progress after completing each lesson and reflect on their learning at the end of the unit.

## Unit Essential

Questions: How are relationships between decimal place values like relationships between whole number place values?

What happens to the value of a number when you multiply or divide by a power of 10 , why?
How do the values of the digits and the placement of the decimal point change when you multiply or divide a decimal by a power of 10 ?

Why can we use fractions to represent a decimal number?
How can we use rounding to compare numbers?
How do I use place value to compare numbers?
How can we use benchmark fractions to estimate differences?

## Unit Big Ideas:

The major themes of this unit are:
\• Place value in decimals follows the same base-ten patterns as whole numbers. Knowing about place value will help you understand how many times more or less one decimal place is than another and will help you read, write, and round decimals.
\• You can use what you know about patterns when multiplying by 10 to understand multiplying and dividing by powers of 10 .
\• Knowing about adding and subtracting whole numbers will help you add and subtract decimals.
\• You can use what you know about equivalent fractions to add and subtract fractions with unlike denominators.

## Unit Materials:

## Lesson 6

Lesson (Required) Per pair: base-ten blocks (5 hundreds flats, 10 tens rods, 10 ones units) Per group: base-ten blocks (1 thousands cube).\ Activity Sheet: Thousandths Decimal PlaceValue Chart

Activities Per student: base-ten blocks (1 hundreds flat, 10 tens rods, 10 ones units) Per pair: play money ( $2 \$ 1$ bills, 21 dimes, 11 pennies)

Digital Math Tool Base-Ten Blocks
Lesson 7
Lesson (Required) Activity Sheet: Digit Cards
Activities Per pair: base-ten blocks (10 hundreds flats, 11 tens rods); 4 strips of paper, each showing one row of the completed place-value chart in Session 2, problem 3

Digital Math Tool Base-Ten Blocks

## Lesson 8

Lesson (Required) Per student: base-ten blocks (5 hundreds flats, 9 tens rods, 9 ones units), 2 index cards

Activities Per student: 3 different colored pencils Per pair: prepared index cards labeled 3 10, 3 100, 4 10, and 4100 Per group: 30 counters, poster board, markers. \ For display: placevalue chart.\ Activity Sheets: Digit Cards, Hundredths Grids

Math Toolkit base-ten blocks, base-ten grid paper, thousandths decimal place-value charts, number lines

Digital Math Tools Base-Ten Blocks, Number Line

## Lesson 9

Lesson (Required) Per student: base-ten blocks (5 hundreds flats, 5 tens rods, 5 ones units)\ Activity Sheet: Number Lines

Activities\ Per pair: 40 counters ( 10 each of 4 types, such as beans, buttons, counters, and shells), 4 paper plates Activity Sheets: Base-Ten Grid Paper, Number Lines, 1-Centimeter Grid Paper

Math Toolkit base-ten blocks, base-ten grid paper, decimal grids, thousandths decimal placevalue charts, number lines

Digital Math Tools Base-Ten Blocks, Number Line

Lesson (Required) Per pair: base-ten blocks (5 hundreds flats, 10 tens rods, 15 ones units) Activity Sheet: Base-Ten Grid Paper

Activities Per pair: base-ten blocks (5 hundreds flats, 15 tens rods, 10 ones units) Per group: 30 counters, poster board, markers

Math Toolkit base-ten blocks, base-ten grid paper, decimal grids, number lines, thousandths decimal place-value charts

Digital Math Tools Base-Ten Blocks, Number Line

## Lesson 11

Lesson (Required) none
Activities Per pair: base-ten blocks (3 hundreds flats, 15 tens rods, 20 ones units) Per group: play money ( 5 one-dollar bills, 20 dimes, 20 pennies) Activity Sheet: Base-Ten Grid Paper

Math Toolkit base-ten blocks, base-ten grid paper, decimal grids, number lines, thousandths decimal place-value charts

Digital Math Tools Base-Ten Blocks, Number Line

## Lesson 12

Lesson (Required) Per pair: 1 set of fraction tiles, 2 sets of fraction circles Activity Sheet: 1-Centimeter Grid Paper

Activities Per pair: 1 set of fraction circles, 1 set of fraction tiles Activity Sheet: Number Lines Math Toolkit fraction tiles, fraction circles, fraction bars, grid paper, number lines

Digital Math Tools Fraction Models, Number Line

## Lesson 13

Lesson (Required) Per pair: 1 set of fraction tiles, 1 set of fraction circles Activity Sheet: Fraction Bars

Activities Per pair: 1 set of fraction tiles Activity Sheets: Fraction Bars, Number Lines Math Toolkit fraction tiles, fraction circles, fraction bars, grid paper, number lines Digital

Math Tools Fraction Models, Number Line

## Lesson 14

Lesson (Required) Per student: 1 set of fraction tiles or circles, base-ten blocks ( 5 hundreds flats, 15\ tens\ rods) Per pair: 1 set of fraction tiles

Activities Per pair: 1 set of fraction tiles, play money (6 dollar bills, 15 dimes, 5 quarters) Per group: 1 set of fraction circles Activity Sheet: Number Lines

Math Toolkit fraction tiles, fraction circles, fraction bars, grid paper, number lines, base-ten blocks, base-ten grid paper, decimal grids, thousandths decimal place-value charts

Digital Math Tools Fraction Models, Number Line

## Unit

Assignments: Students will complete:

- Participate in class discussion about content
- Complete daily bell ringers and exit tickets
- Complete checks for understanding throughout the lesson
- additional practice worksheets attached to each lesson
- Fluency Practice\ 
- iReady individualized instruction time\ 

Unit Key
Terminology \& base ten - a ten-digit number system in which the value of a digit depends on its place. The Definitions:
value of each place is 10 times the value of the place to the right and $1 / 10$ of the value of the place to the left.
thousandths - the parts formed when a whole is divided into 1,000 equal parts. Review the following key terms.
decimal - a number containing a decimal point that separates a whole from fractional place values (tenths, hundredths, thousandths, and so on).
place value - the value of a digit based on its position in a number. For example, the 2 in 3.52 is in the hundredths place and has a value of 2 hundredths, or 0.02.\ 
base (of a power) - in a power, the number that is used as a repeated factor.
exponent - the number in a power that tells how many times to use the base as a factor in repeated multiplication.
power of 10 - a number that can be written as a product of tens. For example, 100 and 1,000 are powers of 10 because 100510310 and 1,000 510310310 .
expanded form - a way to write a number to show the place value of each digit.
inequality - a mathematical statement that uses an inequality symbol (, or .) to show the relationship between expressions with different values.

This Curriculum Map Unit has no Topics to display

Unit: Unit 3: More Decimals and Fractions: Multiplication and Division
Timeline: Week 15 to 24
Unit This unit introduces students to multiplication and division of decimals and fractions. Students
Description: preview the skills they will be learning in this unit and assess what they know and do not know about them. Students record their progress after completing each lesson and reflect on their learning at the end of the unit.

## Unit Essential

Questions: How does a factor greater or less than one affect a product?\ 
How is multiplying whole numbers similar and different to multiplying decimals?\ 
What happens to the decimal point in the product when multiplying with a decimal?
Why is estimating useful when you multiply with decimals?\ 
How do you write a multiplication equation to check your answer to a division problem?
How can we use number lines and models to help us solve fraction division and multiplication problems?

## Unit Big Ideas:

The major themes of this unit are:
You can use what you know about multiplying whole numbers to multiply decimals and fractions

You can think of fractions as division expressions where the numerator is divided by the\ denominator.\ 

Reasoning about the size of the factors help you reason about the size of a product
You can use relationships between multiplication and division to help you divide whole numbers by unit fractions and unit fractions by whole numbers.

## Unit Materials:

## Lesson 15

Lesson: (Required) none
Activities Per pair: play money ( $8 \$ 1$ bills, 21 dimes, 15 pennies) Activity Sheets: Number Lines, Base-Ten Grid Paper

Math Toolkit: base-ten blocks, tenths grids, number lines, grid paper, sticky notes, play money, base-ten grid paper, decimal grids, thousandths decimal place-value charts

Digital Math Tool: Multiplication Models

## Lesson 16

Lesson (Required) Activity Sheet: Hundredths Grids
Activities Per student: 2 sticky notes, colored pencils (2 different colors) Per pair: base-ten blocks ( 8 hundreds flats, 8 tens rods, 8 ones units) Per group: index cards showing $30.1,3$ 0.01, 30.001 Activity Sheets: Hundredths Grids, Digit Cards

Math Toolkit: play money, base-ten blocks, decimal grids, thousandths decimal place-value charts, number lines, base-ten grid paper

Digital Math Tool: Multiplication Models

## Lesson 17

Lesson (Required) Per pair: base-ten blocks (2 tens rods, 20 ones units) Activity Sheets: Number Lines, Hundredths Grids

Activities Per pair: play money (20 nickels, 50 pennies) Per group: 2.7 m of string, meter stick, scissors, marker Activity Sheet: Number Lines

Math Toolkit: base-ten blocks, decimal grids, number lines, fraction bars, thousandths decimal place-value charts, counters, base-ten grid paper, play money

Digital Math Tools: Fraction Models, Number Line

## Lesson 18

Lesson (Required) Activity Sheet: Number Lines
Activities Per student: base-ten blocks (1 tens rods, 2 ones units), scissors Activity Sheets:
Fraction Bars, Digit Cards, 1-Inch Grid Paper
Math Toolkit: fraction circles, fraction tiles, fraction bars, tenths grids, number lines, index\ cards

Digital Math Tools: Fraction Models, Number Line

## Lesson 19

Lesson (Required) Activity Sheet: Fraction Bars
Activities Per student: 1 paper plate, scissors, 1 sheet of paper, colored pencils (2\ different colors)

Digital Math Tools: Fraction Models, Number Line

## Lesson 20

Lesson (Required) Per pair: geoboard, 2 rubber bands
Activities Per student: 1 foot-by-1 foot square sheet of paper, tracing paper, scissors, tape Per pair: drawing paper, 2 colored pencils, rulers, scissors, tape

Math Toolkit: geoboard, rubber bands, base-ten blocks, grid paper, 1/2-inch grid paper, index cards, cardstock, rulers, scissors

Digital Math Tools: Fraction Models and Multiplication Models

## Lesson 21

Lesson (Required) Activity Sheets: 1-Centimeter Grid Paper, Fraction Bars
Activities Per student: 1 piece of cardstock, scissors, glue,1\ sheet of paper Activity
Sheet: 1-Centimeter Grid Paper
Digital Math Tools: Fraction Models, Number Line, Multiplication Models

## Lesson 22

Lesson (Required) Activity Sheet: Fraction Bars
Activities Per student: drawing paper (1 sheet) Per pair: 1 set of fraction tiles, 1 set of fraction circles, tracing paper ( 2 sheets), ruler, colored pencils or crayons ( 2 different colors), tape

Math Toolkit: fraction tiles, fraction circles, fraction bars, grid paper, number lines, index cards Digital Math Tools: Fraction Models, Number Line, Multiplication Models

## Lesson 23

Lesson (Required) none
Activities Per student: 1 set of fraction circles or tiles Per pair: 2 sets of fraction circles or tiles
Digital Math Tool Fraction Models

## Lesson 24

Lesson (Required) Activity Sheet: Fraction Bars
Activities Per student: 1 set of fraction circles or tiles, yarn ( $1 / 2$ foot), scissors, glue, ruler, sheet of paper, modeling clay (2 equal-sized portions) Activity Sheet: Fraction Bars

Math Toolkit: fraction tiles, fraction bars, number lines, grid paper, index cards, sticky notes, ribbon or yarn

Digital Math Tool: Fraction Models

## Unit <br> Assignments: \ Students will complete:\  <br> - Participate in class discussion about content <br> \  - Complete daily bell ringers and exit tickets <br> \  - Complete checks for understanding throughout the lesson <br> \  - Additional practice worksheets attached to each lesson <br> \  - Fluency practice worksheets <br> \  - iReady individualized instruction time <br> \ 

## Unit Key

Terminolog

## Definitions:

decimal a number containing a decimal point that separates a whole from fractional place values (tenths, hundredths, thousandths, and so on).
estimate (verb) to give an approximate number or answer based on mathematical thinking.
factor a number that is multiplied.
place value the value of a digit based on its position in a number. For example, the 2 in 3.52 is in the hundredths place and has a value of 2 hundredths, or 0.02 .
product the result of multiplication.
scaling resizing a quantity by multiplying by a factor.
unit fraction a fraction with a numerator of 1 . Other fractions are built from unit fractions.

This Curriculum Map Unit has no Topics to display

Unit: Unit 4: Measurement, Data, and Geometry
Timeline: Week 25 to 30
Unit This unit extends students understanding of measurement, data, and geometry. Students Description: preview the skills they will be learning in this unit and assess what they know and do not know about them. Students record their progress after completing each lesson and reflect on their learning at the end of the unit.

## Unit Essential

Questions:

How can we utilize a conversion table to solve a problem?
Which operation do you use to convert bigger units to smaller units?
How does converting to the same unit help you compare length?
What can you organize using a line plot?
\ 

## Unit Big Ideas:

The major themes of this unit are:
You can use division to convert from smaller to larger units of measurement within the same measurement system.\ 

You can use your understanding of operations on fractions to solve problems about data presented on line plots.\ 

You can classify two-Dimensional figures into categories and subcategories based on their properties.\ 

## Unit Materials:

Lesson 25<br>Lesson (Required) Per pair: 2 sets of fraction tiles or circles Activity Sheet: Math Reference Sheet<br>Activities Per pair: meterstick Per group: 1-cup measuring cup, 1 pint container, 1 quart container, 6 cups of rice or dried beans Activity Sheet: 1-Centimeter Grid Paper<br>Math Toolkit: base-ten blocks, fraction tiles, fraction circles, ruler, fraction bars, number lines, grid paper

## Lesson 26

Lesson: (Required) Activity Sheet: Math Reference Sheet

Activities: Per pair: 2 centimeter/millimeter rulers, 2 pencils of different lengths, short classroom objects Per group: 1 yardstick, classroom objects $1 \& n d a s h ; 3$ yards in length that can be measured in yards and inches (as many objects as groups)

Math Toolkit: base-ten blocks, clocks, centimeter rulers, number lines, grid paper, base-ten grid paper, math reference sheet

## Lesson 27

Lesson: Per Pair: one set of fraction tiles or circles

Activities: Per Pair: Number cube, Per group: index cards with one measurement on each card, masking tape, one bean bag, 1 yardstick. For display: copy of the tomato weights line plot from session 1, copy of Kiera's data list from session 2, copy of activity sheet sticker widths\ 

Math toolkit: fraction tiles, fraction circles, fraction bard, number lines, rules, sticky notes\ 

## Lesson 28

Lesson (Required) Per student: ruler
Activities Per pair: geoboard, rubber bands, sticky notes, 5 index cards, 5 strips of paper

## Lesson 29

Lesson (Required) none
Activities Per pair: geoboard, rubber bands Per group: 1 set of index cards, each showing a parallelogram, square, or rectangle (prepared in various sizes, colors, orientations), set of 5 sticky notes with letters on them (blue X, red X, green X, blue Y, blue Z), set of 10 sticky notes with vegetable categories written on them (peppers, carrots, vegetables, potatoes, red pepper, hot peppers, seeded vegetables, green peppers, root vegetables, and sweet potatoes), large sheet of paper, markers, blank sticky notes For display: masking tape, Venn diagram with ovals for Triangles, Acute Triangles, and Isosceles Triangles (see Session 3 Hands-On Activity for details)

## Unit <br> Assignments: Students will complete:\ 

\  - Participate in class discussion about content
\  - Complete daily bell ringers and exit tickets\ 
\  - Complete checks for understanding throughout the lesson
\  - Additional practice worksheets attached to each lesson
\  - Fluency practice worksheets
\  - iReady individualized instruction time\ 

## Unit Key

Terminology \& convert to write an equivalent measurement using a different unit.

## Definitions:

customary system the measurement system commonly used in the United States that measures length in inches, feet, yards, and miles; liquid volume in cups, pints, quarts, and gallons; and weight in ounces and pounds.
metric system the measurement system that measures length based on meters, liquid volume based on liters, and mass based on grams.
scale (on a graph)\  the value represented by the distance between one tick mark and the next of a number line
line plot\ a data display that shows data as marks above a number line
category a collection of objects grouped together based on attributes they have in common.
hierarchy a ranking of categories based on attributes.
subcategory a category within a larger category. It shares all the same attributes as the larger category. For example, parallelograms are a subcategory of quadrilaterals.
tree diagram a hierarchy diagram that connects categories and subcategories with lines to show how they are related.
venn diagram a diagram that uses overlapping ovals (or other shapes) to show how sets of numbers or objects are related. Review the following key term.
attribute any characteristic of an object or shape, such as number of sides or angles, lengths of sides, or angle measures.

This Curriculum Map Unit has no Topics to display

Unit: Unit 5: Algebraic Thinking and the Coordinate Plane: Expressions, Graphing Points, Patterns and Relationships Timeline: Week 31 to 36
Unit This unit extends students' understanding of interpreting numerical expressions and introduces

## Description:

 students to the coordinate plane. Students preview the skills they will be learning in this unit and assess what they know and do not know about them. Students record their progress after completing each lesson and reflect on their learning at the end of each unit.
## Unit Essential Questions:

What words can we use to evaluate a mathematical expression?
What types of real world situations can you represent with a mathematical expression?\ 

## Unit Big Ideas:

The major themes of this unit are:
Grouping symbols such as braces, brackets, and parentheses, show the order in which parts of an expression should be evaluated. Knowing how to use grouping symbols and the order of
operations will allow you to correctly evaluate, write, and interpret expressions.\ 
The coordinate plane is a 2-dimensional space formed by 2 perpendicular number lines. Knowing about the coordinate plane will help you graph and interpret points to help you solve real-world and mathematical problems.\ 

| Unit <br> Assignments: | Students will complete: |
| :--- | :--- |
|  | - Participate in class discussion about content |
|  | - Complete daily bell ringers and exit tickets |
|  | - Complete checks for understanding throughout the lesson |
|  | - Additional practice worksheets attached to each lesson |
|  | - Fluency practice worksheets |
|  | - iReady individualized instruction time |

This Curriculum Map Unit has no Topics to display

