

Curriculum Map: 5th Grade Math (2025)

Course: 5th Grade Math Sub-topic: General

Grade(s): 5

Course Description:

The students will be instructed and given practice in basic mathematical operations and problem-solving strategies in the areas of addition, subtraction, multiplication, and division of whole numbers, decimals, fractions, ratio and proportion, and geometry.

Essential Questions:

Numbers and Operations

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

How are relationships represented mathematically?

What does it mean to estimate or analyze numerical quantities?

Operations and Algebraic Thinking

How can expressions, equations, and inequalities be used to quantify, solve, model, and/or analyze mathematical situations?

How can patterns be used to describe relationships in mathematical situations?

Measurement and Data

In what ways are the mathematical attributes of objects or processes measured, calculated, and/or interpreted?

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

Geometry

How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?

How can geometric properties be used to describe, model, and analyze situations?

Course Textbooks, Workbooks, Materials Citations:

District approved math series and iReady teacher tool box. Weekly spiral review papers.

Unit: Unit 1- Place Value

Timeline: Week 2 to 3

Unit Description: The students will compare and order whole numbers through the millions, represent decimals, understand place value through the thousandths, and compare and order whole numbers and decimals.

Unit Essential Questions:

How does a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left?

How do different representations of whole numbers, decimals, and fractions relate to one another?

Unit Big Ideas: Mathematical relationships among numbers can be represented, compared, and communicated.

Unit Materials: District approved math series and iReady teacher toolbox.

Unit

Assignments: Unit 1 quizzes, assessments, and place value projects.

iReady lessons.

**Unit Key
Terminology &
Definitions:**

place-value chart
period
place
place value
standard form
expanded form
decimal
decimal point
equivalent decimals

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.5.B.1
\(Advanced\)](#) Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals.
[CC.2.1.5.B.2
\(Advanced\)](#) Extend an understanding of operations with whole numbers to perform operations including decimals.

This Curriculum Map Unit has no Topics to display

Unit: Unit 2- Multiply Whole Numbers and Divide by One and Two-Digit Divisors

Timeline: Week 4 to 9

Unit Description: Students will multiply three by two digit factors. Students will divide by one and two digit divisors.

Unit Essential Questions:

What strategies can be used when multiplying whole numbers.

What strategies can be used when dividing whole numbers with a multi-digit dividend and a one or two digit divisor?

How can using estimation when solving multiplication/division problems help you determine if your answer is reasonable?

Unit Big Ideas:

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

Unit Materials:

District approved math series and iReady teacher toolbox.

Unit Assignments:

Unit 2 assessments, quizzes, and projects.

Unit Key Terminology & Definitions:

prime factorization

exponent

base

power

squared

cubed

powers of 10

Distributive Property

compatible numbers
fact family
unknown
variable
dividend
divisor
quotient
remainder
partial quotients

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.5.B.2](#)
[\(Advanced\)](#)

Extend an understanding of operations with whole numbers to perform operations including decimals.

This Curriculum Map Unit has no Topics to display

Unit: Unit 3- Decimal operations

Timeline: Week 10 to 15

Unit Description: Students will use their understanding of place value to round decimals and estimate sums, differences, products, and quotients. Students will solve real world problems including adding, subtracting, multiplying, and dividing decimals using models and strategies related to place value and written methods.

Unit Essential Questions:

How can you use estimation to determine reasonable answers in addition, subtraction, multiplication, division?

How do you check the accuracy of sum, difference, product, and/or dividend?

What strategies or models can be used to solve decimal operations problems?

Unit Big Ideas:

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

Unit Materials:

District approved math series and iReady teacher tool box.

Unit Assignments:

Unit assessments, quizzes, and projects.

Unit Key Terminology & Definitions:

Commutative Property of Addition
Associative Property of Addition
Identity Property of Addition
inverse operations

Associative Property of Multiplication

Commutative Property of Multiplication

Identity Property of Multiplication

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.5.B.2 \(Advanced\)](#)

Extend an understanding of operations with whole numbers to perform operations including decimals.

This Curriculum Map Unit has no Topics to display

Unit: Unit 4- Expressions and Patterns

Timeline: Week 16 to 17

Unit Description: Students will write expressions that represent calculations and interpret these expressions without solving them. Students will also solve expressions that include parentheses, brackets, and/or braces using order of operations. Students will plot ordered pairs of numbers on a grid.

Unit Essential

Questions:

How do you use numerical and algebraic expressions to represent words?

How do you use order of operations to evaluate expressions?

What strategies can be used to explain a given pattern algebraically?

How do you plot ordered pairs of numbers on a grid?

Unit Big Ideas:

Mathematical relationships among numbers can be represented, compared, and communicated.

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

Unit Materials:

District approved math series, iReady teacher tool box, and manipulatives.

Unit

Assignments:

Unit assessments, quizzes, and projects.

**Unit Key
Terminology &
Definitions:**

numerical expression
evaluate

order of operations

sequence
term

coordinate plane
origin
ordered pairs
 x -coordinate
 y -coordinate

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.5.A.1](#)
[\(Advanced\)](#)

Interpret and evaluate numerical expressions using order of operations.

[CC.2.2.5.A.4](#)
[\(Advanced\)](#)

Analyze patterns and relationships using two rules.

This Curriculum Map Unit has no Topics to display

Unit: Unit 5- Fractions

Timeline: Week 18 to 25

Unit Description: Students will extend their understanding of division to evaluate, compare, and order fractions and decimals. Students will add and subtract fractions and mixed numbers with unlike denominators using both concrete and visual models. Students will build upon their understanding of multiplication and division in order to explore multiplying and dividing fractions. Students will use their understanding of adding, subtracting, multiplying, and dividing with fractions to solve real world problems.

Unit Essential Questions:

How can a fraction model help us make sense of a problem?

How can fractions with different denominators be added/subtracted?

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

Unit Big Ideas:

To determine if two fractional numbers are equivalent.

Use strategies can be used to compare, order, and evaluate fractions and mixed numbers of differing values.

Use strategies can be used to add, subtract, multiply, and divide fractions with common and uncommon denominators.

Unit Materials: District approved math series, iReady teacher toolkit, manipulatives.

Unit Assignments: Unit assessments, quizzes, and projects.

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.5.C.1](#)
[\(Advanced\)](#)

Use the understanding of equivalency to add and subtract fractions.

[CC.2.1.5.C.2](#)
[\(Advanced\)](#)

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

This Curriculum Map Unit has no Topics to display

Unit: Unit 6- Measurement and Data

Timeline: Week 26 to 27

Unit Description: Students will convert between different units of measure when working in the customary and metric systems. Students will also solve multi-step, real world problems in which they must convert measurements within each system. Students will use line plots to display data sets including fractions and begin drawing conclusions about the data set.

Unit Essential Questions:

What strategies can be used to convert one measurement of length to another within the standard or metric system?

What strategies can you use to justify that an estimated measurement is reasonable?

What strategies are necessary for reading, interpreting, and analyzing graphs?

Unit Big Ideas:

Data can be modeled and used to make inferences.

Conversions and measurement attributes can be quantified, and estimated using customary and non-customary units of measure.

Display measurement data in fractions of a unit on a line plot and solve real-world problems.

Unit Materials: District approved math series, iReady teacher toolbox, and manipulatives.

Unit Assignments: Unit assessments, quizzes, iReady, and projects.

Unit Key Terminology & Definitions:

capacity

centimeter

convert

cup

customary system

fair share

fluid ounce

foot

gallon

gram

inches

kilogram

kilometer

length

liter

mass

meter

metric system

mile

milligram

milliliter

millimeter

ounces

pint

pound

quart

ton

weight

yard

STANDARDS: **STANDARDS**

STATE: PA Core Standards (2014)

[CC.2.3.5.A.1](#) Graph points in the first quadrant on the coordinate plane and interpret these

[\(Advanced\)](#) points when solving real world and mathematical problems.

This Curriculum Map Unit has no Topics to display

Unit: Unit 7- Geometry

Timeline: Week 28 to 30

Unit Description: Students will categorize two and three-dimensional figures based on their attributes. Students will examine these categories and recognize that all subcategories have the same attributes of the main category. Students will explore volume using hands on experiences in order to apply and utilize the formula. Students will also solve real world problems in which they must find the volume of rectangular prisms or composite figures.

Unit Essential Questions:

How can polygons be categorized and classified?

What is the difference between area and volume?

How can you find the volume of rectangular prisms, cubes, and composite figures?

Unit Big Ideas:

Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization.

Spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problem.

Unit Materials: District approved math series, iReady teacher toolbox, and manipulatives.

Unit Assignments: Unit assessments, quizzes, and projects.

Unit Key Terminology & Definitions:

- hexagon
- congruent sides
- pentagon
- regular polygon
- polygon
- octagon
- congruent angles
- attribute
- Types of Triangles:
 - equilateral
 - acute
 - isosceles
 - obtuse
 - scalene
 - right
- trapezoid
- rhombus
- parallelogram
- square
- rectangle
- cube
- congruent figures
- three-dimensional figure
- rectangular prism
- triangular prism
- face
- prism

edge
base(s)
vertex
cube

volume
unit cube
cubic unit

volume

composite figure

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.3.5.A.2](#)
[\(Advanced\)](#)

Classify two-dimensional figures into categories based on an understanding of their properties.

[CC.2.4.5.A.5](#)
[\(Advanced\)](#)

Apply concepts of volume to solve problems and relate volume to multiplication and to addition.

This Curriculum Map Unit has no Topics to display

Unit: Unit 8- Year end benchmarks and spiral review

Timeline: Week 34 to 35

Unit Description: The 5th grade year-end curriculum review and Data assessment will provide a comprehensive evaluation of students' understanding of key math concepts covered throughout the year. This review will help reinforce essential skills while allowing us to analyze student progress areas for growth.

**Unit Essential
Questions:**

How to divide and multiply decimals?

What strategies can be used for order of operations and algebraic thinking.

Unit Big Ideas:

Students will revisit and practice key math topics. Students will complete a summative assessment to measure their proficiency in grade-level math skills.

Unit Materials:

District approved math series, iReady teacher toolbox, and manipulatives.

**Unit
Assignments:**

End of year benchmark assessment, spiral review, and sixth grade material prep.

**Unit Key
Terminology &
Definitions:**

Review of yearly vocabulary and reteaching those terms needed.

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.5.B.2
\(Advanced\)](#)

Extend an understanding of operations with whole numbers to perform operations including decimals.

[CC.2.2.5.A.1
\(Advanced\)](#)

Interpret and evaluate numerical expressions using order of operations.

[CC.2.3.5.A.2
\(Advanced\)](#)

Classify two-dimensional figures into categories based on an understanding of their properties.

This Curriculum Map Unit has no Topics to display