

Curriculum Map: 1st Grade Math (2025)

Course: 1 Math Sub-topic: General

Grade(s): 1

Course Description:

In first-grade math, students will develop a solid foundation in number sense, mathematical operations, and geometric concepts. They will explore numbers within 10, 20 and 100, focusing on addition, subtraction, and place value using tens and ones. Students will learn to perform one- and two-digit addition with regrouping and one- and two-digit subtraction, as well as gain an understanding of measurement, including length and time to the hour and half hour.

Throughout the year, students will also explore 2-D and 3-D shapes, identifying and describing their properties. They will engage in activities that involve organizing and collecting data to develop early data analysis skills. By the end of the course, students will have built a strong understanding of mathematical concepts and developed problem-solving skills, preparing them for more advanced math in the future.

Course Textbooks, Workbooks, Materials Citations:

District approved Math curriculum resource and i-Ready-personalized learning pathways

Unit: Unit 1: Number Sense

Timeline: Week 2 to 3

Unit Description:

In this unit, students will explore numbers 1 through 10 by identifying, writing, composing, decomposing, and representing them in various ways. They will use manipulatives, ten frames, and addition number sentences to deepen their understanding of number concepts. This unit will focus on helping students visualize and work with numbers, as well as develop fluency in composing and decomposing numbers

through hands-on activities and mathematical reasoning.

Unit Essential Questions:

How can I represent numbers?

How can we show numbers in other ways?

How can I use manipulatives to represent numbers?

How can I use a ten frame to show numbers?

How can I break a number apart?

How can I write an addition number sentence?

Unit Big Ideas: Students will understand and work with numbers 1 through 10 by exploring them in different ways, using hands-on activities to build fluency in composing and decomposing numbers.

Unit Materials:

District Approved Curriculum

iReady

Manipulatives (counting bears, yellow/red counters, ones cubes)

Ten Frames

Unit Assignments:

student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

addend

plus sign

equal sign

ten frame

tally mark

dice

counters

number

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.K.A.1](#)
[\(Advanced\)](#)

Know number names and write and recite the count sequence.

[CC.2.1.K.A.2](#)
[\(Advanced\)](#)

Apply one-to-one correspondence to count the number of objects.

[CC.2.2.K.A.1](#)
[\(Advanced\)](#)

Extend the concepts of putting together and taking apart to add and subtract within 10.

Topic:

Unit: Unit 2: Addition Within 10

Timeline: Week 4 to 8

Unit Description: In this unit, students will develop a strong foundation in addition by learning to make numbers from 2 to 10. They will use various strategies, such as counting on, using a number line, and employing a part-part-whole map, to understand and solve addition problems. Students will practice recognizing how numbers can be broken down into parts and how these parts combine to make a whole. They will also practice writing addition number sentences to represent these combinations.

Unit Essential Questions:

How do you add numbers?

How do you break apart numbers?

How do you use a plus sign and equal sign?

How do I find a missing part?

How do I find the whole?

Unit Big Ideas: Students will build a strong foundation in addition by learning to make numbers from 2 to 10 and using strategies like counting on, number lines, and part-part-whole maps to solve addition problems.

Unit Materials: District Approved Curriculum

iReady

Manipulatives (counting bears, yellow/red counters, ones cubes)

Part-Part-Whole Map

**Unit
Assignments:** student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

add

addition number sentence

equals (=)

false

part

plus (+)

sum

true

whole

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.1.A.1](#)
[\(Advanced\)](#)

Represent and solve problems involving addition and subtraction within 20.

[CC.2.2.1.A.2](#)
[\(Advanced\)](#)

Understand and apply properties of operations and the relationship between addition and subtraction.

This Curriculum Map Unit has no Topics to display

Unit: Unit 3: Subtraction Within 10

Timeline: Week 9 to 13

Unit Description: In this unit, students will explore the concept of subtraction by learning how to subtract numbers within 10. They will develop a strong understanding of how numbers can be separated into parts and how to represent these relationships using subtraction number sentences. Students will also deepen their understanding of the connection between addition and subtraction, recognizing that subtraction is the reverse of addition.

Unit Essential Questions:

What is subtraction, and how do we write it with numbers?

How can we break numbers into parts to help with subtraction?

How are addition and subtraction related?

How can subtraction be used in real-life situations?

How can we check if our subtraction answer is correct?

What are some ways to subtract numbers within 10?

How does subtraction help us understand numbers better?

Unit Big Ideas: Students will understand subtraction within 10 by learning how numbers can be separated into parts and connecting subtraction to addition.

Unit Materials:

District Approved Curriculum

iReady

Manipulatives (counting bears, yellow/red counters, ones cubes)

Part-Part-Whole Map

Unit

Assignments: student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

compare

difference

equals

join

minus (-)

related facts

subtract

subtraction number sentence

take away

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.1.A.1](#)
[\(Advanced\)](#)

Represent and solve problems involving addition and subtraction within 20.

[CC.2.2.1.A.2](#)
[\(Advanced\)](#)

Understand and apply properties of operations and the relationship between addition and subtraction.

This Curriculum Map Unit has no Topics to display

Unit: Unit 4: Organize and Use Graphs

Timeline: Week 14 to 15

Unit Description: In this unit, students will learn how to organize and display data using different types of graphs, including bar graphs, tally charts, and picture graphs. They will explore how to collect information, represent it visually, and interpret the data to answer questions. Students will practice creating their own graphs, using simple objects or pictures to represent data, and learning how to read and analyze the information shown in each type of graph.

Unit Essential Questions:

What is a graph and why do we use it?
How can we show data using a picture or bars?

What do the bars, tally marks, or pictures in a graph tell us?

How do we count and compare the information in a graph?

How can a graph help us answer questions about things we want to know?

What happens when we add more information to a graph?

How can we make a graph to show the things we like or use every day?

Unit Big Ideas: Students will learn how to collect and display data using bar graphs, tally charts, and picture graphs. They will practice creating and reading graphs to understand and answer questions about the data.

Unit Materials: District Approved Curriculum

iReady

Data Collection Tools

Unit Assignments: student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

Unit Key Terminology & Definitions:

bar graph

data

graph

picture graph

survey

tally chart

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.1.A.4](#)
[\(Advanced\)](#)

Represent and interpret data using tables/charts.

This Curriculum Map Unit has no Topics to display

Unit: Unit 5: Measurement and Time

Timeline: Week 16 to 18

Unit Description: In this unit, students will explore the concepts of time and length. They will learn how to read and tell time to the hour and half-hour on both digital and analog clocks. Students will also work with measuring length using non-standard units, such as paper clips, blocks, or their own hands, to compare and order different lengths.

Unit Essential Questions:

What is time, and how do we read a clock?

How can we tell time to the hour and half-hour on both digital and analog clocks?

Why do we use different units to measure length?

How can we measure length with non-standard units, like paper clips or blocks?

How can we compare and order different lengths?

How does knowing how to tell time and measure length help us in everyday life?

What is the difference between time and length, and how are they both important?

Unit Big Ideas: Students will understand time and length by learning to tell time and measure length using non-standard units.

Unit Materials: District Approved Curriculum

iReady

Clocks

Non-standard measurement tools (paper clips, blocks, etc)

Unit student workbook pages

Assignments:

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

Unit Key analog clock

**Terminology &
Definitions:**

digital clock

half hour

hour

hour hand

length

long

measure

minute

minute hand

o'clock

short

unit

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.4.1.A.1](#)
[\(Advanced\)](#)

Order lengths and measure them both indirectly and by repeating length units.

[CC.2.4.1.A.2](#)
[\(Advanced\)](#)

Tell and write time to the nearest half hour using both analog and digital clocks.

This Curriculum Map Unit has no Topics to display

Unit: Unit 6: Place Value Within 20

Timeline: Week 19 to 20

Unit Description: In this unit, students will explore place value concepts up to 20. They will learn to break numbers into tens and ones, count by tens and ones, and understand the value of each digit in a number. Using a tens and ones chart, students will practice decomposing numbers and visually representing them as tens and ones. Through hands-on activities and visual aids, students will strengthen their understanding of number structure by counting from 10, building numbers with tens and ones, and recognizing how these parts make up a whole number.

Unit Essential Questions:

What does each digit in a number represent?

How can we break apart a number into tens and ones?

How does counting by tens and ones help us understand numbers?

How can we use a tens and ones chart to show the value of a number?

How do tens and ones work together to make a whole number?

Why is place value important in understanding numbers?

How can we use objects or drawings to show numbers as tens and ones?

How does knowing place value help us compare numbers?

Unit Big Ideas: Students will understand place value up to 20 by breaking numbers into tens and ones and using hands-on activities to visualize number structure.

Unit Materials: District Approved Curriculum

iReady

Base Ten Blocks

Place Value Mats

**Unit
Assignments:**

student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

Equal to (=)

Greater than (>)

Less than (<)

ones

regroup

tens

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.1.B.2
\(Advanced\)](#)

Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.

This Curriculum Map Unit has no Topics to display

Unit: Unit 7: Addition Within 20

Timeline: Week 21 to 23

Unit Description: In this unit, students will develop strategies to add numbers within 20. They will learn to use various strategies, such as counting on, using a number line, doubles, near doubles, and making ten, to solve addition problems. Students will practice adding two numbers and also learn how to add three numbers together. They will focus on understanding number relationships and applying strategies to make addition easier and faster.

Unit Essential Questions:

What are different ways to add numbers within 20?

How can counting on help us solve addition problems?

How can a number line help us add numbers?

What are doubles and near doubles, and how can they help with addition?

How does making ten help us add numbers more easily?

How can we add three numbers together efficiently?

What strategies can we use to solve addition problems quickly and accurately?

Why is it important to understand number relationships when adding?

Unit Big Ideas: Students will develop strategies to add numbers within 20, focusing on understanding number relationships and using strategies to solve addition problems more efficiently.

Unit Materials: District Approved Curriculum

iReady

Manipulatives (counting bears, yellow/red counters, ones cubes)

Part-Part-Whole Map

Number Line

**Unit
Assignments:**

student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

addends

count on

doubles

doubles minus 1

doubles plus 1

equals

number line

plus (=)

sum

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.1.A.1](#)
[\(Advanced\)](#)

Represent and solve problems involving addition and subtraction within 20.

This Curriculum Map Unit has no Topics to display

Unit: Unit 8: Subtraction Within 20

Timeline: Week 24 to 26

Unit Description: In this unit, students will explore subtraction within 20 using a variety of strategies to solve problems. They will learn how to subtract using techniques such as counting back, using a number line, doubles, making ten, and subtraction with related facts or fact families. Students will also practice finding missing addends and understand how addition and subtraction are connected. By applying these strategies, they will become more fluent in solving subtraction problems and build a deeper understanding of number relationships.

Unit Essential Questions:

What are different ways to subtract numbers within 20?

How can counting back help us solve subtraction problems?

How can a number line help us with subtraction?

What are fact families, and how do they show the connection between addition and subtraction?

How does making ten help us subtract more easily?

How can doubles and near doubles help us with subtraction?

What strategies can we use to find a missing number in a subtraction problem?

Unit Big Ideas: Students will use different strategies to subtract numbers within 20, building fluency and understanding the connection between addition and subtraction.

Unit Materials: District Approved Curriculum

iReady

Manipulatives (counting bears, yellow/red counters, ones cubes)

Ten Frames

Part-part-whole map

Unit Assignments: student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

Unit Key Terminology & count back

Definitions: difference
fact family
false
minus (-)
missing addend
related facts
true

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.2.1.A.1](#)
[\(Advanced\)](#)

Represent and solve problems involving addition and subtraction within 20.

[CC.2.2.1.A.2](#)
[\(Advanced\)](#)

Understand and apply properties of operations and the relationship between addition and subtraction.

This Curriculum Map Unit has no Topics to display

Unit: Unit 9: 2-D and 3-D Shapes

Timeline: Week 27 to 29

Unit Description: In this unit, students will explore and identify both 2-D (flat) and 3-D (solid) shapes. They will learn to recognize and describe 2-D shapes such as squares, rectangles, triangles, trapezoids, and circles. Students will also study 3-D shapes, including cubes, prisms, cones, and cylinders, and understand their features,

such as faces, edges, and vertices. They will practice combining 3-D shapes to create new shapes and explore how these shapes relate to one another. Additionally, students will work with composite shapes (shapes made by combining others) and learn about fractions, focusing on equal parts like halves and quarters/fourths.

Unit Essential Questions:

What are the different types of 2-D shapes, and how can we describe them?

What makes a shape a 3-D shape, and how are 3-D shapes different from 2-D shapes?

What are the parts of a 3-D shape?

How can we combine 3-D shapes to make new shapes?

What are composite shapes, and how can we make them by combining different shapes?

How can we use fractions to describe shapes?

How can we recognize and describe the features of everyday objects as shapes?

Unit Big Ideas: Students will learn to identify 2-D and 3-D shapes, explore their parts, and understand basic fractions like halves and quarters.

Unit Materials:

District Approved Curriculum

iReady

Manipulatives:

2-D shape cutouts: Squares, rectangles, triangles, trapezoids, circles.

3-D shape models: Cubes, spheres, cones, cylinders, pyramids, rectangular prisms.

Composite shape models: Shapes made by combining 2-D and 3-D objects.

Shape manipulatives: Foam or plastic shapes that can be easily handled and explored.

**Unit
Assignments:**

student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

circle

composite shape

cone

cube

cylinder

equal parts

face

fourths

halves

rectangle

rectangular prism

side

square

three-dimensional Shape

trapezoid

triangle

two-dimensional shape

vertex

whole

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.3.1.A.1](#)
[\(Advanced\)](#)

Compose and distinguish between two- and three-dimensional shapes based on their attributes.

[CC.2.3.1.A.2](#)
[\(Advanced\)](#)

Use the understanding of fractions to partition shapes into halves and quarters.

Topic:

Unit: Unit 10: Place Value Within 100

Timeline: Week 30 to 31

Unit Description: In this unit, students will explore place value concepts for numbers within 100. They will use tools like ten and one sticks and a tens and ones map to help understand how to compose and decompose two-digit numbers. Students will learn how to break numbers into tens and ones, and explore how numbers change by adding or subtracting ten. They will also practice comparing numbers using symbols (greater than, less than, equal to) to understand which numbers are greater, smaller, or equal.

Unit Essential Questions:

What is place value, and why is it important when working with numbers?

How can we break apart two-digit numbers into tens and ones?

How does adding or subtracting ten change a number?

How can we use ten sticks and one sticks to help understand numbers?

How can we compare numbers using the symbols greater than, less than, and equal to?

What does it mean for one number to be greater or smaller than another?

How can we represent numbers in different ways, like with a tens and ones map?

How do numbers within 100 relate to each other in terms of tens and ones?

What happens when we move a number from one place value to another (e.g., moving from 29 to 39)?

How can we use what we know about place value to count and order numbers?

Unit Big Ideas: Students will learn to break down two-digit numbers into tens and ones, understand ten more and ten less,

and compare numbers using symbols.

Unit Materials: District Approved Curriculum

iReady

Base Ten Blocks

Place Value Mats

Unit student workbook pages

Assignments:

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

**Unit Key
Terminology &
Definitions:**

Equal to

Greater than

Hundreds

Less than

Less

More

Ones

Groups Tens

Same

STANDARDS: STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.1.B.2
\(Advanced\)](#)

Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.

[CC.2.1.1.B.3
\(Advanced\)](#)

Use place-value concepts and properties of operations to add and subtract within 100.

Topic:

Unit: Unit 11: 2-Digit Addition and Subtraction

Timeline: Week 32 to 33

Unit Description: In this unit, students will explore two-digit addition and subtraction, focusing on strategies like regrouping and breaking numbers into tens and ones. They will learn to add numbers by regrouping tens and ones, use counting on for addition, and subtract by counting back in tens for subtraction. Students will also explore related addition and subtraction facts to build fluency and understanding of how these operations are connected.

Unit Essential Questions:

How can we add two-digit numbers using tens and ones?
What does regrouping mean, and when do we need to use it?

How can counting on help us add numbers?
How can counting back by tens help us subtract?
How are addition and subtraction related?
How can we check our subtraction and addition answers?
When do we need to break numbers into tens and ones to make adding or subtracting easier?

Unit Big Ideas: Students will learn to add and subtract two-digit numbers using strategies like regrouping, counting on, and counting back by tens. They will also understand how addition and subtraction are related.

Unit Materials: District Approved Curriculum

iReady

Base Ten Blocks

Place Value Mats

Unit Assignments: student workbook pages

iReady

quizzes

end of unit test

exit tickets

projects

hands on centers

Unit Key Terminology & Definitions: Review Vocabulary:

Add

Count on

Ones

Regroup

Subtract

Tens

STANDARDS:

STANDARDS

STATE: PA Core Standards (2014)

[CC.2.1.1.B.2](#)
[\(Advanced\)](#)

Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers.

[CC.2.1.1.B.3](#)
[\(Advanced\)](#)

Use place-value concepts and properties of operations to add and subtract within 100.

[CC.2.2.1.A.2](#)
[\(Advanced\)](#)

Understand and apply properties of operations and the relationship between addition and subtraction.

This Curriculum Map Unit has no Topics to display