Course Name Grade 2 Math

Approved: August 26, 2024

Unit Title Unit 1 Numbers Within 20: Addition, Subtraction, and Data

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards

CC.2.2: Algebraic Concepts

CC.2.2.2.A.1
Represent and solve problems involving addition and subtraction within 100.

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

CC.2.4: Measurement, Data and Probability

CC.2.4.2.A.4
Represent and interpret data using line plots, picture graphs, and bar graphs.

Transfer

Students will be able to independently use their learning to...

- ❑ Students will independently use their addition, subtraction, data interpretation, and problem-solving skills to solve real-life problems and effectively communicate and collaborate with others.

Meaning

UNDERSTANDINGS

Students will understand that...

- ❑ Different strategies, such as making a ten and doubles plus one, can help students add and subtract.
- ❑ Students can use what they know about the relationship between addition and subtraction to solve problems.
- ❑ Organizing data into graphs can help students answer questions about the data.
- ❑ Knowing how to model a problem with pictures or

ESSENTIAL QUESTIONS

Students will keep considering...

- ❑ Which strategy should I use to add or subtract?
- ❑ How can I use what I know about the relationship between addition and subtraction to solve problems?
- ❑ How can I organize data into graphs to help answer questions about the data?
- ❑ How can I use pictures or diagrams to help solve a problem?

	diagrams can help students solve problems.	
	Acquisition	
	Students will know... ❑ I know how to represent and solve problems involving addition and subtraction within 100. ❑ I know how to use mental strategies to add and subtract within 20. ❑ I know how to represent and interpret data using line plots, picture graphs and bar graphs.	*Students will be skilled at...* ❑ I can represent and solve problems involving addition and subtraction within 100. ❑ I can use mental strategies to add and subtract within 20. ❑ I can represent and interpret data using line plots, picture graphs, and bar graphs. ❑ I can use count on, fact families, and make a ten to add and subtract. ❑ I can solve a one-step word problem. ❑ I can draw and find information from picture graphs and bar graphs. ❑ I can use addition and subtraction to solve a problem with more than one step. ❑ I can listen carefully during discussion in order to understand another person's ideas and ask questions about what they do not understand.

Course Name Grade 2

Unit Title Unit 2 Numbers Within 100: Addition, Subtraction, Time, and Money

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards

CC.2.1: Numbers and Operations
CC.2.1.2.B.3
Use place value understanding and properties of operations to add and subtract within 1000.

CC.2.2: Algebraic Concepts
CC.2.2.2.A.1
Represent and solve problems involving addition and subtraction within 100.

CC.2.4: Measurement, Data and Probability
CC.2.4.2.A.3
Solve problems and make change using coins and paper currency with appropriate symbols

Transfer

Students will be able to independently use their learning to...

- ❑ Students will add and subtract using place value and operational strategies, while also mastering money-related word problems and time-telling.

Meaning

UNDERSTANDINGS
Students will understand that...

- ❑ Adding or subtracting from a tens number can make a problem easier. Knowing how to break apart numbers to get to the nearest ten can help students solve addition and subtraction problems.
- ❑ Models can represent word problems. Knowing how to create a good model will help students solve one- or two-step word problems.
- ❑ Students can use what they know about skip counting by

ESSENTIAL QUESTIONS
Students will keep considering...

- ❑ How can we break apart numbers to get to the nearest ten to solve addition and subtraction problems?
- ❑ How can I use a model to solve one- or two-step word problems?
- ❑ How can I use skip counting by fives to tell time to the nearest five minutes?

	fives to help them tell time to the nearest 5 minutes.	
	Acquisition	
	Students will know... ❑ I know how to use place value and properties of operations to add and subtract within 1000. ❑ I know how to represent and solve problems involving addition and subtraction within 100. ❑ I know how to solve problems and make change using coins and paper currency with appropriate symbols.	*Students will be skilled at...* ❑ I can use place value understanding and properties of operations to add and subtract within 1000. ❑ I can represent and solve problems involving addition and subtraction within 100. ❑ I can solve problems and make change using coins and paper currency with appropriate symbols. ❑ I can add tens, add ones, and add two-digit numbers. ❑ I can regroup ones as a ten and decompose a ten. ❑ I can subtract two digit numbers ❑ I can solve one step and two step word problems by adding or subtracting two digit numbers. ❑ I can solve word problems involving money. ❑ I can tell and write time to the nearest five minutes. ❑ I can actively participate in discussions by asking questions and rephrasing or building on my classmates' ideas.

EAST PENN SCHOOL DISTRICT

Course Name Grade 2

Unit Title Unit 3 Numbers Within 1,000: Place Value, Addition, and Subtraction

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards

CC.2.1: Numbers and Operations

CC.2.1.2.B.1
Use place value concepts to represent amounts of tens and ones and to compare three digit numbers.

CC.2.1.2.B.2
Use place value concepts to read, write, and skip count to 1000.

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

Transfer

Students will be able to independently use their learning to...

- ❑ Students will use place value to manipulate and compare three-digit numbers, applying these skills to addition and subtraction. They will also develop the ability to justify their problem-solving strategies.

Meaning

UNDERSTANDINGS

Students will understand that...

- ❑ The value of a digit in a number depends on its place in the number. Knowing about place value will help students determine the total value of a number and will help them read, write and compare numbers.
- ❑ Students can use what they know about place value to mentally add 10 or 100 to numbers or subtract 10 or 100 from numbers.

ESSENTIAL QUESTIONS

Students will keep considering...

- ❑ How can I use the place value of a number to read, write and compare numbers?
- ❑ How can I use what I know about place value to mentally add 10 or 100 to numbers or subtract 10 or 100 from numbers?
- ❑ How can I use place value to break apart numbers as a strategy for adding or subtracting?

	❑ Knowing about place value will help students break apart numbers as a strategy for adding or subtracting.	
	Acquisition	
	Students will know... ❑ I know how to use place value concepts to represent amounts of tens and ones and to compare three digit numbers. ❑ I know how to use place value concepts to read, write, and skip count to 1000. ❑ I know how to use place value and properties of operations to add and subtract within 1000.	*Students will be skilled at...* ❑ I can use place value concepts to represent amounts of tens and ones and to compare three digit numbers. ❑ I can use place value concepts to read, write, and skip count to 1000. ❑ I can use place value understanding and properties of operations to add and subtract within 1000. ❑ I can build three-digit numbers in different ways. ❑ I can read, write, and compare three-digit numbers. ❑ I can add 10 or 100 to a number. ❑ I can add or subtract three-digit numbers. ❑ I can use different strategies to add and subtract. ❑ I can add more than 2 two-digit numbers. ❑ I can justify solutions to problems about three-digit numbers by telling what I noticed and what I decided to do as a result.

EAST PENN SCHOOL DISTRICT

Course Name Grade 2 Math

Unit Title Unit 4 Length: Measurement, Addition and Subtraction, and Line Plots

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards

CC.2.4: Measurement, Data and Probability

CC.2.4.2.A.1
Measure and estimate lengths in standard units using appropriate tools.

CC.2.4.2.A.4
Represent and interpret data using line plots, picture graphs, and bar graphs.

CC.2.4.2.A.6
Extend the concepts of addition and subtraction to problems involving length

Transfer

Students will be able to independently use their learning to...

- ❑ Students will become adept at measuring lengths accurately and interpreting data using graphs, applying addition and subtraction concepts to solve problems involving length.

Meaning

UNDERSTANDINGS

Students will understand that...

- ❑ Different tools and units can be used to measure length. Knowing about measurement will help students to estimate and compare lengths.
- ❑ Students can use addition or subtraction to find the difference between the lengths of objects.

ESSENTIAL QUESTIONS

Students will keep considering...

- ❑ How can I use different tools and units to measure, estimate, and compare lengths?
- ❑ How can I use addition and subtraction to find the difference between the lengths of objects?

Acquisition

Students will know...

- ❑ I understand how to use tools to measure and compare lengths.

Students will be skilled at...

- ❑ I can measure and estimate lengths in standard units using appropriate tools.

	❑ I understand how to represent and interpret data using line plots, picture graphs, and bar graphs. ❑ I understand how to extend the concepts of addition and subtraction to problems involving length.	❑ I can represent and interpret data using line plots, picture graphs, and bar graphs. ❑ I can extend the concepts of addition and subtraction to problems involving length. ❑ I can choose a tool to measure the length of an object. ❑ I can compare lengths to tell which of two objects is longer and how much longer that object is. ❑ I can add and subtract lengths to solve problems. ❑ I can add and subtract lengths on a number line. ❑ I can measure lengths to show data on a line plot. ❑ I can agree or disagree with ideas in discussions about length problems and explain why.

Course Name Grade 2 Math

Unit Title Unit 5 Shapes and Arrays: Partitioning and Tiling Shapes, Arrays, Evens and Odds

STAGE 1 | DESIRED RESULTS

Context and relevance for student learning

Standards

CC.2.2: Algebraic Concepts

CC.2.2.2.A.3

Work with equal groups of objects to gain foundations for multiplication.

CC.2.3: Geometry

CC.2.3.2.A.1

Analyze and draw two- and three-dimensional shapes having specified attributes.

CC.2.3.2.A.2

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

Transfer

Students will be able to independently use their learning to...

- ❑ Students will foster spatial analysis, geometric visualization, fraction partitioning, shape recognition, division of shapes, arithmetic application in arrays, and number classification..

Meaning

UNDERSTANDINGS

Students will understand that...

- ❑ Knowing the number of sides and angles a shape has can help students identify the shape.
- ❑ Students can use what they know about dividing a shape into equal parts to show halves, thirds, and fourths.
- ❑ An array is an arrangement of objects in equal rows and columns. Students can use what they know about addition and skip counting to

ESSENTIAL QUESTIONS

Students will keep considering...

- ❑ How can I use the number of sides and angles a shape has to identify the shape?
- ❑ How can I use what I know to divide a shape into equal parts to show halves, thirds, and fourths?
- ❑ How can I use what I know about addition and skip counting to find the number of objects in an array?

	find the number of objects in an array.	
	Acquisition	
	Students will know... ❑ I know how to work with equal groups of objects to gain foundations for multiplication.	*Students will be skilled at...* ❑ I can analyze and draw two- and three-dimensional shapes having specified attributes. ❑ I can use the understanding of fractions to partition shapes into halves, quarters, and thirds. ❑ I can recognize and draw different shapes. ❑ I can divide shapes into equal parts. ❑ I can break up a rectangle into squares. ❑ I can find the total number of squares used to tile a rectangle by counting them. ❑ I can use addition to find the total number of objects in an array. ❑ I can find even and odd numbers.