Grade 2 Math Curriculum Overview

Content Area: **Mathematics**
Course(s): **Math**
Time Period: **School Year**
Length: **10 months**
Status: **Published**

Course Overview

The grade two Math Program focuses on many areas to engage student's mathematical thinking.

Addition and Subtraction Strategies:

Students develop understanding of addition and subtraction strategies. These strategies are illustrated by relevant visual models such as number lines and ten-frames. Various addition and subtraction strategies depend on a good understanding of place-value concepts. Like the addition strategies, the subtraction strategies incorporate place-value. Students work with situations involving "add to," "take from," "put together," "take apart," and "compare." Students need a strong understanding of regrouping to help them add and subtract within 1,000. They can use place-value blocks when performing addition to represent the regrouping.

Time and Money:

Counting money and telling time both require mental mathematics and are related to counting on and skip counting by 5 and 10. Counting money is also related to the concepts of place value. Students find the value of a collection of coins, as well as telling time to the nearest 5 minutes.

Measuring Length:

Students gain a better understanding of the measurement process which involves comparing a unit to an object. They learn how to use standard units and measuring tools. Students come to understand how customary units of length are related, as well as how metric units of length are related.

Shapes and Their Attributes:

In the first three lessons, students learn about the number of sides, the number of vertices, and the number of angles in triangles, quadrilaterals, pentagons, and hexagons. In Lesson 13-5, students partition a rectangle into rows and columns of same-size squares and use repeated addition to find the total number of squares. In Lessons 13-6, 13-7, and 13-8, students divide 2-dimensional shapes into halves, thirds, and fourths, and they learn that equal shares of the same whole can have different shapes.

Graphs and Data:

Line plots display numerical data. In Topic 15, these data are measurements of objects. Students generate some of the measurement data themselves. Bar graphs and picture graphs display categorical data. Various categories are shown in the graph and either a bar or picture symbol is used to show the frequency for each category.

Course Name, Length, Date of Revision and Curriculum Writer

Math Grade 2 Curriculum, Entire Year, 6/30/24, Lori Skala and Christine Moccia

Table of Contents

Unit 1: Fluently Add and Subtract Within 20

Unit 2- Work with Equal Groups

Unit 3- Add Within 100 Using Strategies

Unit 4- Fluently Add Within 100

Unit 5- Subtract Within 100 Using Strategies

Unit 6- Fluently Subtract Within 100

Unit 7- More Solving Problems Involving Addition and Subtraction

Unit 8- Work with Time and Money

Unit 9- Numbers to 1,000

Unit 10- Add Within 1,000 Using Models and Strategies

Unit 11- Subtract Within 1,000 Using Models and Strategies

Unit 12- Measuring Length

Unit 13- Shapes and Their Attributes

Unit 14- More Addition, Subtraction, and Length

Unit 15- Graphs and Data

Topic 1: Fluently Add and Subtract Within 20

Content Area: **Mathematics**
Course(s): **Math**
Time Period: **1st Trimester**
Length: **12 days**
Status: **Published**

Summary of the Unit

Topic 1 focuses on students developing understanding of addition and subtraction strategies. These strategies are illustrated by relevant visual models such as number lines and ten-frames. For example, a ten-frame is used to show two different ways students can make 10 to find 13-5.

Enduring Understandings

- Counting on is a strategy that can be used to find sums. The order of the addends does not change the sum.
- Basic addition facts that are near doubles can be found using a related doubles fact.
- Some addition facts can be found by changing to an equivalent fact with 10.
- Patterns in a 0-10 addition facts table are useful for adding numbers and for developing mental math strategies and number sense.
- A number line is a tool you can use to help you count on or count back to subtract.
- Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact.
- Some subtraction facts can be simplified by making use of the numbers' relationships to 10.
- The addends determine efficient strategies, such as making 10 or using doubles facts, for finding addition facts. "Think of a related addition fact" is an efficient strategy for finding a subtraction fact.
- Objects, diagrams, and equations can help you solve different types of word problems.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too

Essential Questions

- If you add two numbers in a different order, will you get the same sum?
- How can you use a double fact to find a near double fact?
- Why is making a 10 a good strategy to help you add quickly and accurately?

- How can addition patterns help you find an addition fact that you don't remember?
- What are two ways that you can use a number line to subtract?
- How are addition and subtraction related?
- Why is making a 10 a good strategy to help you subtract quickly and accurately?
- How do you decide which strategy to use to add and subtract quickly and accurately?
- Why is writing an equation useful for solving a word problem?
- What are some ways to describe a good math argument?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

Math Notebook

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

K-5 Math Teaching Resources https://www.k-5mathteachingresources.com

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 1-1 Addition Fact Strategies (1 day)	SWBAT use counting on to add numbers and add numbers in any order.	**Solve and Share**: Students add the same two addends in different orders. Their work shows prior and emerging understanding you can build on	• Daily Review 1-1 • Guided Practice • Independent Practice/ Problem Solving

		during the Visual Learning Bridge. **Visual Learning**: If you add two numbers in a different order, will you get the same sum? **Convince Me**: Have students use reasoning to explain how they know that the sum of each side of the equation is equal to 7. Have students use connection cubes to model 5+2=2+5 **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Fancy Flea-Missing Parts to 12 **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/Activity 1-1	• Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 1-1
Lesson 1-2 Doubles and Near Doubles	SWBAT use doubles and near doubles to add	**Solve and Share**: Students are asked to use counters to show a double fact,	• Daily Review 1-2 • Guided Practice • Independent

(1 day)	accurately and efficiently.	and then near doubles fact. **Visual Learning**: How can you use a double fact to find a near double fact? **Convince Me**: Students will build on their knowledge of doubles when they develop their understanding of near doubles. Confirm that students have gained mastery of the doubles facts before moving to near doubles. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build. • enVision STEM Activity 1-2	Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-2
Lesson 1-3 Make a 10 to Add (1 day)	SWBAT use the strategy of making a ten to add accurately and efficiently.	**Solve and Share**: Students are asked to find 9+3 while thinking about 10. They can use a ten-frame and counters to show their work. **Visual Learning**:	• Daily Review 1-3 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching

		Why is making a 10 a good strategy to help you add quickly and accurately? **Convince Me**: Students should be able to look closely at the ten-frames and discern structure. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build. • enVision STEM Activity 1-3	• Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-3
Lesson 1-4 Addition Fact Patterns (1 day)	SWBAT use number patterns on an addition facts table to complete addition equations.	**Solve and Share**: Students use an addition facts table showing sums to 10 to look for and describe addition number patterns. **Visual Learning**: How can addition patterns help you find an addition fact that you don't remember? **Convince Me**: Students learn that placing addends in numerical order helps show patterns in the sums. Encourage students to	• Daily Review 1-4 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-4

		think about the patterns to help them remember the facts. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident- Adding and Subtracting Numbers to 20 found at PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build.	
Lesson 1-5 Count On and Count Back to Subtract (1 day)	SWBAT count on and count back on a number line to subtract	**Solve and Share**: Students demonstrate how to use a number line to count on to solve a subtraction problem. **Visual Learning**: What are two ways that you can use a number line to subtract? **Convince Me**: Students will use a number line to demonstrate how to count back. **Guided Practice**: Completion of "Guided Practice" as a whole group.	• Daily Review 1-5 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-5

		Suggested Center Activities: • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build.	
Lesson 1-6 Think Addition to Subtract (1 day)	SWBAT think addition to subtract accurately and efficiently	**Solve and Share**: Students use reasoning to analyze the relationship between addition and subtraction. **Visual Learning**: How are addition and subtraction related? **Convince Me**: Students will refer to the addition and subtraction problems in the Visual Learning Bridge as they think about their answers. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings to complete the "Independent Practice" section. • "Problem solving"	• Daily Review 1-6 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-6

		• Pearson Realize Power House-Equal Groups to 25 Math Game • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math • Envision Math Game: Flying Cow Incident- Adding and Subtracting Numbers to 20 found at PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build.	
Lesson 1-7 Make a 10 to Subtract	SWBAT make a 10 to subtract accurately and efficiently	**Solve and Share**: Students explain how they can use a 10 to help solve a subtraction fact. **Visual Learning**: Why is making a 10 a good strategy to help you subtract quickly and accurately? **Convince Me**: Students explain and justify whether they prefer to use addition or subtraction to make a 10. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings to complete the "Independent Practice" section. • "Problem solving" • Pearson Realize Power House-Equal Groups to 25	• Daily Review 1-7 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-7

		Math Game • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident- Adding and Subtracting Numbers to 20 found at PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build.	
Lesson 1-8 Practice Addition and Subtraction Facts	SWBAT add and subtract accurately and efficiently using mental math strategies.	**Solve and Share**: Students apply their number sense and knowledge of operations to write related facts. **Visual Learning**: How do you decide which strategy to use to add and subtract quickly and accurately? **Convince Me**: Students use their understanding of how the relationships between numbers to explain how to make a 10 to solve a subtraction problem. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings to complete the "Independent Practice" section. • "Problem solving" • Pearson Realize Power	• Daily Review 1-8 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-8

		House-Equal Groups to 25 Math Game • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math • Envision Math Game: Flying Cow Incident- Adding and Subtracting Numbers to 20 found at PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build. activity to build.	
Lesson 1-9 Solve Addition and Subtraction Word Problems	SWBAT use addition and subtraction to solve word problems.	**Solve and Share**: Students are asked to make sense of the problem by analyzing the relationship between the numbers. **Visual Learning**: Why is writing an equation useful for solving a word problem? **Convince Me**: Students solve addition and subtraction word problems. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings to complete the "Independent Practice" section. • "Problem solving" • Pearson Realize Power	• Daily Review 1-9 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-9

		House-Equal Groups to 25 Math Game • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math • enVision Math Game: Fancy Flea: Missing Parts to 12 found on PearsonRelaize.com **Optional Activities**: • Climate Change Activity: Students will solve problems that have to do with a climate change related issue. See below. • Problem-Solving Leveled Reading Mats/Activity 1-9	
Lesson 1-10 Problem Solving: Construct Arguments (1 day)	SWBAT use words, pictures, numbers, and symbols to construct viable math arguments.	**Solve and Share**: Students consider what constitutes a good written explanation in mathematics. **Visual Learning**: What are some ways to describe a good math argument? **Convince Me**: Encourage students to support their reasoning with specific examples. **Guided Practice**: Completion of "Guided Practice" as a whole group. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings to complete the "Independent Practice" section. • "Problem solving"	• Daily Review 1-10 • Guided Practice • Independent Practice • Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy Enrichment • Additional Practice • Quick Check 1-10

		• Pearson Realize Power House-Equal Groups to 25 Math Game • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: • My Math Academy • ST Math • Fluency-Add and Subtract Within 20 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 3. Students can choose an activity to build	
Review Topic 1: Understand Addition and Subtraction 1 Day	SWBAT: Review vocabulary words used in the topic. Review addition and subtraction strategies in preparation for assessment.	Vocabulary review: Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • additional "Guided Practice" • "Independent Practice" • "Problem solving" • Hands-on manipulatives • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • St Math • Brain Pop Jr-Repeated Addition • My Math Academy	Reteaching Pages

		Optional Activities: Topic 1 Practice Assessment	
Topic 1 Assessment 1 Day	SWBAT complete Topic 1 assessment independently	**Topic 1 Assessment:** Students will independently complete Topic 1 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 1 Assessment

Climate Change Activity

2.OA.A.1 Students will begin by calculating the distance traveled to and from school each day. They will then determine the "miles per gallon" of the family car or school bus they travel in. Using this information, students will calculate the amount of fuel used to bring them to and from school each day. Lastly, students combine their individual fuel use to compute the amount of fuel used daily in order for them to travel to school. Students will use the data collected to create and solve addition and subtraction word problems.

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.A.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
MATH.2.OA.B	Add and subtract within 20
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)

- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- Envision Stem Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 2: Work with Equal Groups

Content Area: **Mathematics**
Course(s): **Math**
Time Period: **1st Trimester**
Length: **7 days**
Status: **Published**

Summary of the Unit

Topic 2 focuses on determining whether a number is even or odd, and on finding the total number of objects in situations involving equal groups of objects.

Enduring Understandings

- Numbers can be classified as even or odd by showing numbers as two equal parts.
- A group of objects (or a number) can also be classified as even or odd by analyzing skip-counting patterns. An even number can be written as a sum of equal addends.
- An array shows equal groups, so you can write equations using repeated addition to find the total number of objects in an array.
- You can make arrays and write equations using repeated addition to help solve problems.
- Good math thinkers use math they know to show and solve problems.

Essential Questions

- How can you tell if the number of cubes is even or odd?
- How can you tell if a group of objects is even or odd?
- What are two ways you can use addition to find the total number of objects in an array?
- How can you write an equation, using repeated addition, to find the total number of objects in an array?
- When you need to solve a word problem, why do you draw a picture and write an equation?

Summative Assessment and/or Summative Criteria

Topic Test
Quick Checks
Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 2-1 Even and Odd Numbers (1 day)	SWBAT tell if a group of objects are even or odd.	**Solve and Share**: Students identify which number to 20 can be shown as two equal groups. **Visual Learning**: How can you tell if the number of cubes in a tower of cubes is even or odd? **Convince Me**: Have students show two cube towers with 4 cubes in each tower. Have them add 1 cube to one of the towers. Ask students to discuss why the total number of cubes in all is an odd number. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy	• Daily Review 2-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 2-1

		• ST Math **Optional Activities**: • Pick a Project Activity pg 59-60. Students can choose an activity to build.	
Lesson 2-2 Continue Even and Odd Numbers (1 day)	SWBAT use different ways to tell if a group of objects shows an even or odd number.	**Solve and Share**: Students are asked to use cubes to determine the number of class members if the class can form pairs plus one student. **Visual Learning**: How can you tell if a group of objects is even or odd? **Convince Me**: Have students use squares to show the number. Remind students that if you can make pairs with the squares with none left over, then the number is even. If not, the number is odd. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy	• Daily Review 2-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 2-2

		• ST Math **Optional Activities**: • Pick a Project Activity pg 59-60. Students can choose an activity to build. • enVision Stem Activity 2-2	
Lesson 2-3 Use Arrays to Find Totals (1 day)	SWBAT find the total number of objects in a set of rows and columns.	**Solve and Share**: Students show and explain two different ways to find a total. **Visual Learning**: What are two ways you can use addition to find the total number of objects in an array? **Convince Me**: Draw an incomplete array on the board. Ask volunteers to erase or add circles to the drawing to make it an array. Then have them explain their thinking. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities:	• Daily Review 2-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 2-3

		• My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 59-60. Students can choose an activity to build. • enVision Stem 2-3	
Lesson 2-4 Make Arrays to Find Tools (1 day)	SWBAT make arrays with equal rows or equal columns to solve addition problems.	**Solve and Share**: Students solve a word problem by using counters and writing an equation. **Visual Learning**: How can you write an equation, using repeated addition, to find the total number of objects in an array? **Convince Me**: Have students represent the problem using counters or another way they choose. After they write their explanations, have students share their responses. Ask what they would do to make this into an array. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 2-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 2-4

		Technology: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 59-60. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 2-4	
Lesson 2-5 Problem Solving: Model with Math (1 day)	SWBAT model problem using equations, drawings, and arrays.	**Solve and Share**: Students draw a picture and write an equation to model and solve a word problem. **Visual Learning**: When you need to solve a word problem, why do you draw a picture and write an equation? **Convince Me**: Make sure students understand that drawing a picture helps them show what it is happening in the problem. The picture then helps them write an equation, which they can then use to solve the problem. Explain that they can do this to solve each of the problems in the lesson. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete	• Daily Review 2-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 2-5

		"Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Fluency-Add and Subtract found on Pearson Realize.com **Optional Activities**: • Pick a Project Activity pg 59-60. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 2-5	

Review Topic 2: Understand Work with Equal Groups (1 Day)	SWBAT: Review vocabulary words used in the topic. Review addition and subtraction strategies in preparation for assessment.	Vocabulary review: Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • additional "Guided Practice" • "Independent Practice" • "Problem solving" • Hands-on manipulatives • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • St Math • Brain Pop Jr-Repeated Addition • My Math Academy **Optional Activities**: Topic 2 Practice Assessment	Reteaching Pages
Topic 2 Assessment (1 day)	SWBAT complete Topic 2 assessment independently	**Topic 2 Assessment:** Students will independently complete Topic 2 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 2 Assessment

Standards

MATH.2.OA.C	Work with equal groups of objects to gain foundations for multiplication
MATH.2.OA.C.3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
MATH.2.OA.C.4	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.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math

- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention ki

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 3: Add Within 100 Using Strategies

Content Area: **Mathematics**
Course(s): **Math**
Time Period: **1st Trimester**
Length: **9 days**
Status: **Published**

Summary of the Unit

Topic 3 focuses on addition within 100 using strategies that employ a hundred chart, an open number line, breaking numbers apart, and compensation.

Enduring Understandings

- Patterns on a hundred chart can be used to add numbers and to develop mental math strategies and number sense.
- Two-digit numbers can be broken apart using tens and ones and added in different ways. You can represent how you break apart and add numbers with hops or jumps on an open number line.
- Two-digit numbers can be broken apart using tens and ones and added in different ways.
- When adding two-digit numbers, you can add an amount to one addend and subtract the same amount from another addend to make addition easier.
- There are different ways to add two-digit numbers. Certain strategies may be better to use for a problem than others.
- Some problems can be solved in one step. Other problems can be solved in two steps- first by solving a sub-problem, or by answering a hidden question, and then by using that answer to solve the original problem.
- Good math thinkers know how to choose the right strategy to solve problems and use math to explain why they are right. They can talk about the math that others do, to

Essential Questions

- How can you use patterns on a hundreds chart to help you add numbers mentally?
- How can you use an open number line to help you add two 2-digit numbers?
- How can you break apart the second addend to find the sum of two 2-digit numbers?
- How can you use the compensation strategy to find the sum of two 2-digit numbers?
- What strategies can you use to add two 2-digit numbers?
- What are some things you can do to help you keep track of steps in a problem?
- What are some ways to describe a good math argument

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 3-1 Add Tens and Ones on a Hundred Chart (1 day)	SWBAT add within 100 using place-value strategies and a hundred chart.	**Solve and Share**: Students are asked to explain how to use a hundred chart to solve the addition problem 32+43. **Visual Learning**: How can you use patterns on a hundred chart to help you add numbers mentally. **Convince Me**: Have students use the hundred chart to test Max's way. Ask them to explain why they can move down 2 rows and move back 2 spaces. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group.	• Daily Review 3-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-1

		Suggested Center Activities: • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 91. Students can choose an activity to build.	
Lesson 3-2 Add tens and Ones on an Open Number Line (1 day)	SWBAT use an open number line to add tens and ones within 100.	**Solve and Share**: Students use an open number line to add two 2-digit numbers, and they write an equation to show the sum. **Visual Learning**: How can you use an open number line to help you add two 2-digit numbers? **Convince Me**: Have students use an open number line to show how to find 56+35. Encourage students to write down what they do at each step as they complete it.	• Daily Review 3-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-2

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident-2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 91. Students can choose an activity to build.	
Lesson 3-3 Break Apart Numbers to Add (1 day)	SWBAT break apart numbers into tens and ones to find their sum.	**Solve and Share**: Students use any strategy they choose, along with drawings and equations, to solve an addition word problem. **Visual Learning**: How can you break apart the second addend to find the sum of two 2-digit numbers? **Convince Me**:	• Daily Review 3-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-3

		Encourage students to model by drawing a picture and writing an equation as part of their explanation. Elicit from students that 28 has 2 tens and 8 ones, which can be written as 20+8. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Launch that Sheep- Add and Subtract 1, 2, 5, 10 **Optional Activities**: • Pick a Project Activity pg 91. Students can choose an activity to build. • Problem Solving Leveled Reading Mats/ Activity 3-3	
Lesson 3-4 Add Using Compensation (1 day)	SWBAT break apart addends and combine them in different ways to	**Solve and Share**: Students are asked to change an addend in 27+16 to make it easier for them to find the	• Daily Review 3-4 • Guided Practice • Independent Practice/ Problem

	make numbers that are easy to add mentally.	sum. **Visual Learning**: How can you use the compensation strategy to find the sum of two 2-digit numbers? **Convince Me**: After students solve the problem, have them share their solution strategies and examples of how compensation can be used to solve the problem. Have them display and explain their work. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**:	Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-4

		• Pick a Project Activity pg 91. Students can choose an activity to build. • enVison STEM Activity 3-4	
Lesson 3-5 Practice Adding Using Strategies (1 day)	SWBAT choose and use any strategy to add two-digit numbers.	**Solve and Share**: Students use any strategy to solve a word problem. **Visual Learning**: What strategies can you use to add two 2-digit numbers? **Convince Me**: Students should be able to explain the same amount is added and subtracted to undo any earlier change they have made to the sum. Ask students to use a hundred chart or a number line to further demonstrate their thinking. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game:	• Daily Review 3-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-5

		Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 91. Students can choose an activity to build. • enVison Stem Activity 3-5	
Lesson 3-6 Solve One-Step and Two-Step Problems (1 day)	SWBAT use drawings and equations to solve one-step and two-step problems.	**Solve and Share**: Students solve a one-step word problem, and they explain their answer using counters, drawings, or equations. **Visual Learning**: What are some things you can do to help you keep track of steps in a problem? **Convince Me**: Stress the importance of completing the steps in order. Could you have found out how many tickets Amy sold first, before you found out how many tickets Jenn sold? Why or why not? **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical	• Daily Review 3-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-6

		Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 91. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 3-6	
Lesson 3-7 Problem Solving: Construct Arguments (1 day)	SWBAT use words, pictures, numbers, and symbols to construct viable math arguments.	**Solve and Share**: Students choose and use a strategy to solve a word problem. **Visual Learning**: What are some ways to describe a good math argument? **Convince Me**: Construct arguments- Encourage students to support their reasoning with specific examples. **Guided Practice**: Complete a portion of “Guided Practice” as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete “Independent Practice” and “Problem Solving” • “Reteach to Build” • “Build Mathematical	• Daily Review 3-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 3-7

		Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 91. Students can choose an activity to build.	
Review Topic 3: Understand Adding within 100 Using Strategies (1 Day)	SWBAT: Review vocabulary words used in the topic. Review addition and subtraction strategies in preparation for assessment.	Vocabulary review: Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional “Guided Practice” • Independent Practice • Problem-solving • Hands-on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category **Optional Activities**: Topic 3 Practice Assessment	Reteaching Pages
Topic 3	SWBAT complete	**Topic 3 Assessment:**	Topic 3 Assessment

Assessment: Add Within 100 Using Strategies	Topic 3 assessment independently	Students will independently complete Topic 3 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.B	Add and subtract within 20
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
MATH.2.NBT.A	Understand place value
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.

- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 4: Fluently Add Within 100

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **1st Trimester**
Length: **11 days**
Status: **Published**

Summary of the Unit

Topic 4 focuses on developing computational fluency in addition within 100 by using models, understanding of place value, properties of operation, the partial-sums method, and mental mat

Enduring Understandings

- Strategies for adding two-digit numbers involve breaking numbers apart using place value and joining tens and ones in either order.
- Strategies for adding two-digit numbers involve breaking numbers apart using place value and joining tens and ones in either order. Sometimes 10 ones can be composed to make 1 ten.
- One way to add two-digit numbers is to break the numbers into tens and ones, add the tens and add the ones in either order, and then add partial sums to find the total.
- One way to add two-digit numbers is to break the numbers into tens and ones, add the tens and add the ones in either order, and then add these partial sums to find the total.
- One way to add two-digit numbers is to break just one addend into tens and ones, add the tens to the other addend and then add the ones.
- Strategies for adding two 2-digit numbers can be extended to adding more than two 2-digit numbers. Numbers can be added in any order.
- There are several addition strategies that can be used to add more than two numbers. Numbers can be added in any order.
- Some problems can be solved in one step. Other problems can be solved in two steps- first, by solving a sub-problem or by answering a hidden question, and then by using that answer to solve the original problem.
- Good math thinkers use math they know to show and solve problems

Essential Questions

- How can you use regrouping to add two 2-digit numbers?
- How can you use place-value drawings and breaking addends into tens and ones to solve addition problems?
- How can you use partial sums to add two-digit numbers?
- How can you use mental math and partial sums to add two-digit numbers?
- How can you break apart one addend and add mentally to find the sum of two 2-digit numbers?
- How can you add more than two 2-digits numbers?
- How can you add two or more 2-digit numbers in different ways?
- What are some things you can do to help you solve one - and two-step word problems?
- What are some ways to show (model) and solve word problems?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 4-1 Add 2-Digit Numbers Using Models (1 day)	SWBAT use models to add 2-digit numbers and then explain the work.	**Solve and Share**: Students use place-value blocks to model an addition word problem involving two 2-digit numbers. **Visual Learning**: How can you use regrouping to add two 2-digit numbers? **Convince Me**: Encourage students to share their thinking and to give an example to support their opinion. As a class, discuss how the ones digits can be used to decide if regrouping is needed.	• Daily Review 4-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-1

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build.	
Lesson 4-2 Continue to Add 2-Digit Numbers Using Models (1 day)	SWBAT add 2-digit numbers using models.	**Solve and Share**: Students use place-value blocks to solve a word problem involving two 2-digit numbers. **Visual Learning**: How can you use place-value drawings and breaking addends into tens and ones to solve addition problems? **Convince Me**:	• Daily Review 4-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-2

		Remind students that as well as deciding whether Ken is correct, they need to explain how they reached that decision. Some of the students may disagree on the answer or may agree on the answer but have different explanations. Discuss these differences, telling different ways to correctly make an argument. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build.	

Lesson 4-3 Add with Partial Sums (1 day)	SWBAT add using place value and partial sums.	**Solve and Share**: Students draw place-value blocks to add two 2-digit numbers. **Visual Learning**: How can you use partial sums to add two-digit numbers? **Convince Me**: Have students use place-value blocks to model adding the ones first, then the tens to show the sum is the same. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident-2-Digit Number found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students	• Daily Review 4-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-3

		can choose an activity to build. • enVision STEM Activity 4-3	
Lesson 4-4 Add Using Mental Math and Partial Sums (1 day)	SWBAT add using mental math, place value and partial sums.	**Solve and Share**: Students solve a two-digit addition problem and explain their work. **Visual Learning**: How can you use mental math and partial sums to add two-digit numbers? **Convince Me**: Have students explain their work using equations to show each step. Discuss why using partial sums is a good method for finding the sum. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVsion Math Game: Flying Cow Incident- 2-Digit Number found	• Daily Review 4-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-4

		on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/Activity 4-4	
Lesson 4-5 Break Apart Numbers and Add Using Mental Math (1 day)	SWBAT add using place-value strategies and mental math.	**Solve and Share**: Students solve a 2-digit addition problem using place-value blocks or a drawing. **Visual Learning**: How can you break apart one addend and add mentally to find the sum of two 2-digit numbers? **Convince Me**: After students accurately explain the procedure, ask Why is the break-apart strategy helpful? Sample answer: It lets me do the addition in my head. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 4-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-5

		Technology: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build.	
Lesson 4-6 Add More Than Two 2-Digit Numbers (1 day)	SWBAT add three or four 2-digit numbers.	**Solve and Share**: Students critique a strategy used to add three 2-digit numbers. Then they solve the problem using a strategy of their choice. This prepares them to add up to four 2-digit numbers. **Visual Learning**: How can you add more than two 2-digit numbers? **Convince Me**: Have students use reasoning to explain why they can add in any order and the sum does not change. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and	• Daily Review 4-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-6

		"Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- 2-Digit Number Practice found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 4-6	
Lesson 4-7 Practice Adding Using Strategies (1 day)	SWBAT practice using strategies to add more than two numbers.	**Solve and Share**: Students solve a word problem involving three 2-digit numbers and explain how they found their answer. **Visual Learning**: How can you add two or more 2-digit numbers in different ways? **Convince Me**: Students apply previously learned strategies to model and solve the problem. Encourage students to share their thinking and use different approaches as a point of discussion. Emphasize that adding the ones first, can result in the same, correct answer. **Guided Practice**:	• Daily Review 4-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-7

		Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident- 2-Digit Number found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build.	
Lesson 4-8 Solve One-Step and Two-Step Problems (1 day)	SWBAT use drawings, models, and equations to solve one-and two-step problems.	**Solve and Share**: Students are asked to use drawings, models, or an equation to solve an addition problem. **Visual Learning**: What are some things you can do to help you solve one- and two step word problems? **Convince Me**: Why is it helpful to know more than one way to solve a	• Daily Review 4-8 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-8

		problem? Sample answer: I can use one way to solve and another way to check my answer. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build.	
Lesson 4-9 Problem Solving: Model with Math (1 day)	SWBAT make models to help solve math problems.	**Solve and Share**: Students solve a put-together, total-unknown word problem by adding together two 2-digit numbers. **Visual Learning**: What are some ways to show (model) and solve word problems? **Convince Me**: Have students demonstrate	• Daily Review 4-9 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 4-9

		why a bar diagram and an equation can both be used to model a problem. Have students discuss how a bar diagram can help to organize data that can then be used in an equation. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Save the World- Grade 2 Topic 1-4 **Optional Activities**: • Pick a Project Activity pg 135-136. Students can choose an activity to build. • enVision STEM Activity 4-9	
Review Topic 4: Fluently Add within 100 (1 day)	SWBAT: Review vocabulary words used in the topic. Review addition and subtraction strategies in preparation for	Vocabulary review: Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with	Reteaching Pages

	assessment.	teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category **Optional Activities**: Topic 4 Practice Assessment	
Topic 4 Assessment Fluently Add within 100 (1 day)	SWBAT complete Topic 4 assessment independently	**Topic 4 Assessment:** Students will independently complete the Topic 4 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 4 Assessment

Standards

MATH.2.OA.B	Add and subtract within 20
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit

	numbers.
MATH.2.NBT.A	Understand place value
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)

- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity

Topic 5: Subtract Within 100 Using Strategies

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **1st Trimester**
Length: **10 days**
Status: **Published**

Summary of the Unit

Topic 5 focuses on subtraction within 100 using strategies that employ a hundred chart, an open number line, breaking numbers apart, and compensation.

Enduring Understandings

- Patterns on a hundred chart can be used to subtract numbers and to develop mental math strategies and number sense.
- Two-digit numbers can be broken apart using tens and ones to subtract in different ways. You can represent how you break apart and subtract numbers with hops or jumps on an open number line.
- Two-digit numbers can be broken apart using tens and ones to subtract in different ways.
- One-digit numbers can be broken apart to make it easier to subtract them mentally.
- When subtracting 2-digit numbers, you can add the same amount to both numbers in the problem
- There are different ways to subtract 2-digit numbers. Certain strategies may be better to use for a problem than others.
- You can use bar diagrams, equations, and the relationship between addition and subtraction to help yo solve one and two step problems.
- Good math thinkers use math to explain why they are right. They can talk about the math that others d too.

Essential Questions

- How can patterns on a hundred chart help you subtract numbers mentally?
- How can you use an open number line to subtract tens and ones?
- How can you use an open number line to add up to subtract?
- Why is it a good idea to break apart the number you are subtracting into two numbers?
- Why is compensation, and how can you use it to help you subtract?
- What strategies can you use to subtract two 2-digit numbers.
- How can you go about solving one and two step word problems?
- What are some things you can do to critique the thinking of others?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 5-1 Subtract Tens and Ones on a Hundred Chart (1 day)	SWBAT use a hundred chart to subtract tens and ones.	**Solve and Share**: Students explain how they use a hundred chart to find the difference of two 2-digit numbers. **Visual Learning**: How can patterns on a hundred chart help you subtract numbers mentally? **Convince Me**: Have students share and justify their explanations to make sure they understand that there is more than one correct way to use the hundred chart to find the difference. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small	• Daily Review 5-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-1

		group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build.	
Lesson 5-2 Count Back to Subtract on an Open Number Line (1 day)	SWBAT use an open number line to subtract tens and ones.	**Solve and Share**: Students use an open number line to solve a word problem. **Visual Learning**: How can you use an open number line to subtract tens and ones? **Convince Me**: What are the things you must always remember to include on your open number line work? (Sample answers: Labels and tick marks for numbers on the line, jumps, and labels above for each jump. **Guided Practice**: Complete a portion of	• Daily Review 5-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-2

		"Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build. • enVision STEM Activity 5-2	
Lesson 5-3 Add Up to Subtract Using an Open Number Line (1 day)	SWBAT add up to subtract using an open number line.	**Solve and Share**: Students use an open number line to solve an addend-unknown word problem. **Visual Learning**: How can you use an open number line to add up to subtract? **Convince Me**: Before students respond, you might have them use an open number line to show how they would solve the problem. Then they could use their open number line work to help them explain how they would add up to solve	• Daily Review 5-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-3

		the problem. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident- 2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 5-4	
Lesson 5-4 Break Apart Numbers to Subtract (1 day)	SWBAT break apart 1-digit numbers to make it easier to subtract mentally.	**Solve and Share**: Students solve a subtraction problem and explain their answer. **Visual Learning**: Why is it a good idea to break apart the number you are subtracting into two numbers?	• Daily Review 5-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy

		Convince Me: Make sure students realize that they can break apart the numbers any way they choose, but the goal is to make numbers that are easy to subtract mentally. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Launch That Sheep- Add and Subtract 1, 2, 5, 10 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 5-4	• Enrichment • Additional Practice • Quick Check 5-4
Lesson 5-5 Subtract Using Compensation (1 day)	SWBAT make numbers that are easier to subtract, and	**Solve and Share**: Students use mental math to subtract 2-digit numbers.	• Daily Review 5-5 • Guided Practice • Independent Practice/ Problem

	use mental math to find the difference.	**Visual Learning**: What is compensation, and how can you use it to help you subtract? **Convince Me**: Encourage students to use equations to model Marc's thinking as you discuss. Ask What is the problem Marc solved? What did he subtract first? Next? Explain why Marc got the correct answer. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build. • Problem-Solving	Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-5

		Leveled Reading Mats/ Activity 5-5	
Lesson 5-6 Practice Subtracting Using Strategies (1 day)	SWBAT choose and use any strategy to subtract 2-digit numbers.	**Solve and Share**: Students use any strategy to solve a take-apart, total-unknown word problem, and they show and explain their work. **Visual Learning**: What strategies can you use to subtract two 2-digit numbers? **Convince Me**: Make sure students can articulate why 3 was added to 37 and to 25. Students must be able to explain why the strategies work. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on PearsonRealize.com	• Daily Review 5-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-6

		Optional Activities: • Pick a Project Activity pg 187. Students can choose an activity to build.	
Lesson 5-7 Solve One-Step and Two-Step Problems (1 day)	SWBAT solve one-and two-step problems using addition and subtraction.	**Solve and Share**: Students solve an add-to, start-unknown word problem. **Visual Learning**: How can you go about solving one-and two-step word problems? **Convince Me**: Give each student a copy of the bar diagrams (Teaching Tool 16). Have students complete a bar diagram to help them organize the information before they solve the problem. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game:	• Daily Review 5-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-7

		Fluency- Add and Subtract within 20 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build.	
Lesson 5-8 Problem Solving: Critique Reasoning (1 day)	SWBAT critique the thinking of others by using what is known about addition and subtraction.	**Solve and Share**: Students are asked if they agree with another student's solution to a word problem and to explain their reasoning. **Visual Learning**: What are some things you can do to critique the thinking of others? **Convince Me**: Have students share the questions they would ask Kelly to help her check her reasoning, so that students understand there is more than one way to help Kelly check her thinking. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 5-8 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 5-8

		Technology: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Save the Word: Grade 2, Topic 1-4 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 187. Students can choose an activity to build.	
Review Topic 5: Subtract Within 100 Using Strategies (1 day)	SWBAT: Review vocabulary words used in the topic. Review addition and subtraction strategies in preparation for assessment.	Vocabulary review: Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category **Optional Activities**: Topic 5	Reteaching Pages

		Practice Assessment	
Topic 5 Subtract Within 100 Using Strategies (1 day)	SWBAT complete Topic 5 assessment independently	**Topic 5 Assessment:** Students will independently complete Topic 5 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 5 Assessment

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.B	Add and subtract within 20
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digi numbers.
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value an the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable

with.

- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVsion 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 6: Fluently Subtract Within 100

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **2nd Trimester**
Length: **9 days**
Status: **Published**

Summary of the Unit

Topic 6 focuses on developing computational fluency in subtraction within 100 by using understanding or value, properties of operations, mental math, and the partial- differences strategy.

Enduring Understandings

- When you use place-value materials to subtract a one-digit whole number from a two-digit whole number, sometimes you need to decompose 1 ten as 10 ones.
- When you use place-value materials to subtract a two-digit whole number from a two-digit whole number, sometimes you need to decompose 1 ten as 10 ones. When subtracting, you can start with tens or the ones.
- When subtracting two-digit numbers, you can subtract the tens and then subtract the ones by maki 10.
- Two-digit numbers can be broken apart to make it easier to subtract them mentally.
- Subtraction problems involving two-digit numbers can be solved using different subtraction strateg
- Two-step-word-problems can be solved by first identifying and solving a hidden question. The ans the hidden question is then used to answer the question given in the problem.
- A bar diagram can be used to identify the relationship between quantities in a word problem and th operation(s) needed to solve it.

Essential Questions

- Why do you sometimes need to regroup when you subtract?
- How is subtracting a 2-digit number like subtracting a 1-digit number from a 2-digit number?
- How can you use partial differences to subtract two-digit numbers?
- How could you break apart a two-digit number that you are subtracting in order to make it easier t subtract?
- What are some strategies you could use to solve a subtraction problem?
- Why is it helpful to complete a bar diagram and write an equation to solve word problems?
- How can you use a bar diagram and an equation to show how the numbers in a word problem are r

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Ta

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot

Topic/Selection Timeframe	**General Objectives**	**Instructional Activities**	**Benchmarks/Assessments**
Lesson 6-1 Subtract 1-Digit Numbers Using Models (1 day)	SWBAT use place value and models to subtract one-digit numbers.	**Solve and Share**: Students explain how to subtract a one-digit number from a two-digit number. **Visual Learning**: Why do you sometimes need to regroup when you subtract? **Convince Me**: Students explain why the 4 ones are taken away first when subtracting. After 4 ones are taken away, how many more ones are left to take away? Can you take away 2 more ones if you regroup one of the tens into 10 ones? **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent	• Daily Review 6-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 6-1

		Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Flying Cow Incident- 2-Digit Numbers Found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 235-236. Students can choose an activity to build.	
Lesson 6-2 Subtract 2-Digit Numbers Using Models (1 day)	SWBAT use place value and models to subtract two-digit numbers.	**Solve and Share**: Students use place-value blocks to model two-digit subtraction. **Visual Learning**: How is subtracting a 2-digit number like subtracting a 1-digit number from a 2-digit number? **Convince Me**: Students explain how the two methods are similar and different. Ensure that students are thorough in their explanations. Have students use place-value blocks to act out each method to help them see how they are different. **Guided Practice**: Complete a portion of "Guided Practice" as a	• Daily Review 6-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 6-2

		whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on Pearsonrealize.com **Optional Activities**: • Pick a Project Activity pg 235-236. Students can choose an activity to build. • Problem-Solving Reading Mats/Activity 6-2	
Lesson 6-3 Subtract Using Partial Differences (1 day)	SWBAT subtract using place value and partial differences.	**Solve and Share**: Students draw place-value blocks to solve a two-digit-from-two-digit subtraction problem. **Visual Learning**: How can you use partial differences to subtract two-digit numbers? **Convince Me**: Students consider the	• Daily Review 6-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment

		relationship between the quantities in a subtraction problem to reason that it does not affect the difference if the tens and ones are subtracted first using partial differences. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on Pearsonrealize.com **Optional Activities**: • Pick a Project Activity pg 235-236. Students can choose an activity to build. • enVision STEM Activity 6-3	• Additional Practice • Quick Check 6-3
Lesson 6-4 Continue to Subtract Using	SWBAT break apart two-digit numbers to	**Solve and Share**: Students solve a two-digit subtraction problem in two	• Daily Review 6-4 • Guided Practice

Partial DIfferences (1 day)	make it easier to subtract.	different ways. **Visual Learning**: How could you break apart a two-digit number that you are subtracting in order to make it easier to subtract? Explain. **Convince Me**: Students must think about how to break apart 45 and in which order to subtract the parts to make a 10 and solve. They should see that Andy is correct in his thinking. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Launch that Sheep- Add and Subtract 1, 2, 5, 10 found on PearsonRealize.com **Optional Activities**:	• Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 6-4

		• Pick a Project Activity pg 235-236. Students can choose an activity to build.	
Lesson 6-5 Practice Subtracting (1 day)	SWBAT subtract two-digit numbers using a variety of subtraction strategies.	**Solve and Share**: Students choose any strategy to solve a two-digit subtraction problem. **Visual Learning**: What are some strategies you could use to solve a subtraction problem? **Convince Me**: If you were to solve the problem in a different way, would your answer be different? Why or why not? **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Fluency- Add and Subtract within 100 found on	• Daily Review 6-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 6-5

		PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 235-236. Students can choose an activity to build.	
Lesson 6-6 Solve One-Step and Two-Step Problems (1 day)	SWBAT use models and equations to solve word problems.	**Solve and Share**: Students solve a two-step problem any way they choose, and show their work. **Visual Learning**: Why is it helpful to complete a bar diagram and write an equation to solve a word problem? **Convince Me**: How are the numbers in the bar diagram related? (The sum of the parts equals the whole). **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math	• Daily Review 6-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 6-6

		Optional Activities: • Pick a Project Activity pg 235-236. Students can choose an activity to build. • enVision STEM Activity 6-6	
Lesson 6-7 Problem Solving Reasoning (1 day)	SWBAT reason about word problems and use bar diagrams and equations to solve.	**Solve and Share**: Students solve a word problem and explain the operation they chose. **Visual Learning**: How can you use a bar diagram and an equation to show how the numbers in a word problem are related? **Convince Me**: Have students draw place-value blocks to show the relationship between 17 and 28 as parts of 45. Then have them write all the addition and subtraction equations they can, with those three numbers. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 6-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 6-7

		Technology: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 235-236. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 6-7	
Review Topic 6: Fluently Subtract Within 100 (1 day)	SWBAT: Review vocabulary words used in the topic. Review addition and subtraction strategies in preparation for assessment.	Vocabulary review: Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-Solving • Hands-on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • ST Math • My Math Academy • Brain Pop Jr. Math	Reteaching Pages

		Category **Optional Activities**: Topic 6 Practice Assessment	
Topic 6 Fluently Subtract Within 100 (1 day)	SWBAT successfully complete Topic 6 assessment independently	**Topic 6 Assessment:** Students will independently complete Topic 6 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • ST Math • My Math Academy • Brain Pop Jr. Math Category	Topic 6 Assessment

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.B	Add and subtract within 20
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one- numbers.
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity

Topic 7: More Solving Problems Involving Addition and Subtraction

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **2nd Trimester**
Length: **10 days**
Status: **Published**

Summary of the Unit

Topic 7 focuses on representing and solving one and two step word problems involving addition and subtraction situations. Students represent the numerical relationship in the word problems using drawings, bar diagrams, and equations with symbols for the unknown number. Then they fluently add and subtract within 100 to find the solution. They also determine the unknown quantity in addition and subtraction equations.

Enduring Understandings

- A bar diagram can be used to show the relationship between quantities in a real-world problem, an equation can be written to represent that relationship.
- A bar diagram can be used to show the relationship between quantities in a real-world problem, an equation can be written to represent that relationship. Strategies for adding and subtracting whole numbers can be used to find unknowns.
- A bar diagram can be used to show the relationship between quantities in a real-world problem, an equation can be written to represent that relationship. Strategies for adding and subtracting whole numbers can be used to find the unknowns.
- Sometimes a problem has an unstated, or hidden, question that you need to answer before you can the final answer.
- Sometimes the answer to one problem is needed to find the answer to another problem.
- An equation can have different numerical expressions on each side of the equal sign, but each has t same value.
- Reasoning can be used to identify relationships between quantities in real-world problems. Equatic be written to represent relationships.

Essential Questions

- How can you write an equation to show and solve a word problem?
- What are some things you can do to help you solve word problems?
- How can you use a bar diagram to help you solve a word problem?
- How do you decide if you need to solve a problem in two steps?
- How can you figure out if there is a hidden question that you need to answer first in order to solve problem?
- How can you find the missing number in an equation that relates two numbers on each side?

- How can you find the missing number in an equation that relates up to three numbers on each side?
- How can you use an equation to write a number story?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 7-1 Represent addition and subtraction problems. (1 day)	SWBAT model problems using equations with unknowns in any position.	**Solve and Share**: Students are asked to critique another's thinking about how to represent and solve a word problem using an equation. **Visual Learning**: How can you write an equation to show and solve a word problem? **Convince Me**: Challenge students to write different equations using addition or subtraction. **Guided Practice**:	• Daily Review 7-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-1

		Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build.	
Lesson 7-2 Mixed Practice: Solve Addition and Subtraction Problems (1 day)	SWBAT use drawings and equations to make sense of the words in problems.	**Solve and Share**: Students solve a comparison word problem any way they choose. **Visual Learning**: What are some things you can do to help you solve word problems? **Convince Me**: If students are having difficulty following the language, use connecting cubes to model the statements. Encourage students to draw pictures	• Daily Review 7-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-2

		to help them make sense of the words. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build.	
Lesson 7-3 Continue Practice with Addition and Subtraction Problems (1 day)	SWBAT use drawings and equations to make sense of the words in problems.	**Solve and Share**: Students solve a comparison word problem any way they choose. **Visual Learning**: How can you use a bar diagram to help you solve a word problem? **Convince Me**: If students have difficulty understanding that both	• Daily Review 7-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-3

		statements have the same meaning, then use actual markers to demonstrate it. Assume that Zoey has 1 marker to simplify the demonstration. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build. • enVision STEM Activity 7-3	
Lesson 7-4 Solve Two-Step Problems (1 day)	SWBAT model and solve two-step problems using equations.	**Solve and Share**: Students identify the steps needed to solve a two-step word problem with 1-digit and 2-digit numbers.	• Daily Review 7-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching

		Visual Learning: How do you decide if you need to solve a problem in two steps? **Convince Me**: Students must understand how the three numbers in the problem relate to each other before they can make a plan. If needed, restate the problem in a simpler way. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers **Optional Activities**: • Pick a Project Activity pg 279.	• Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-4

		Students can choose an activity to build. • Problem Solving Leveled Reading Mats/ Activity 7-4	
Lesson 7-5 Continue to Solve Two-Step Problems (1 day)	SWBAT use different ways to solve two-step problems.	**Solve and Share**: Students determine the steps needed to solve a two-step word problem. **Visual Learning**: How can you figure out if there is a hidden question that you need to answer first in order to solve a word problem. **Convince Me**: Students explain why they need two steps to solve the problem in the Visual Learning Bridge. Follow up by reviewing with students how the solution to the first step is used to answer the question in the problem. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 7-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-5

		Technology: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build. • enVision STEM Activity 7-5	
Lesson 7-6 Make True Equations (1 day)	SWBAT find unknown numbers in equations that relate four whole numbers.	**Solve and Share**: Students find the missing number that makes the equation true and explain strategies they used, such as counting on, to find it. **Visual Learning**: How can you find the missing number in an equation that relates two numbers on each side? **Convince Me**: Students explain how the difference of the two known numbers is used to find the missing number on the other side of the equation. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small	• Daily Review 7-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-6

		group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build.	
Lesson 7-7 Continue to Make True Equations (1 day)	SWBAT find unknown numbers in equations that relate four or more whole numbers.	**Solve and Share**: Students find a missing number to make an equation true. **Visual Learning**: How can you find the missing number in an equation that relates up to three numbers on each side? **Convince Me**: Ask students to explain their process for determining the missing number. Ask What did you do first to determine the missing number? Why? First I found the sum on the left side of the equation which is 50. I need to do this first so that I can then find the	• Daily Review 7-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-7

		missing number that makes the right side of the equation equal to 50. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build.	
Lesson 7-8 Problem Solving: Reasoning (1 day)	SWBAT use reasoning to write and solve number stories.	**Solve and Share**: Given the answer to a problem, students use it to write a number story. Then they write an equation to match their story. **Visual Learning**: How can you use an equation to write a number story?	• Daily Review 7-8 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 7-8

		Convince Me: What are some words you can use when you compare things? (Sample answers: More, less, greater, fewer). Have students share their story problems and explain how their stories are about comparing. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 279. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 7-8	
Review Topic 7:	SWBAT: Review	Vocabulary review:	Reteaching Pages

More Solving Problems Involving Addition and Subtraction (1 day)	vocabulary words used in the topic. Review addition and subtraction strategies in preparation for assessment.	Students review vocabulary words used in the topic. Reteaching Pages: Students will complete reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • ST Math • My Math Academy • Brain Pop Jr. Math Category **Optional Activities**: Topic 7 Practice Assessment	
Topic 7 Assessment More Solving Problems Involving Addition and Subtraction (1 day)	SWBAT successfully complete Topic 7 assessment independently	**Topic 7 Assessment:** Students will independently complete Topic 7 assessment. **Suggested center activity:** • My Math Academy **Technology Activities:** • ST Math	Topic 7 Assessment

		• My Math Academy • Brain Pop Jr. Math Category	

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.B	Add and subtract within 20
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-numbers.
MATH.2.NBT.B	Use place value understanding and properties of operations to add and subtract
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.

- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity/enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 8: Work with Time and Money

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **2nd Trimester**
Length: **10 days**
Status: **Published**

Summary of the Unit

Topic 8 focuses on identifying and counting coins and bills, solving word problems about money in financ terms, telling time to the nearest 5 minutes using a.m. and p.m., and telling time before and after the hour.

Enduring Understandings

- Each kind of coin has a specific value unrelated to the physical size.
- Money is measurable, and the value of coins can be quantified using cent amounts.
- Money measurable and can be quantified using dollar and cent amounts. Each kind of bill has a specific value. You can count to find the total value of a group of dollar bills.
- Each kind of bill has a specific value, ant the value of the bills can be used to solve problems about money. Word problems about money can often be solved by adding and subtracting.
- Good math thinkers know how to think about words and numbers to solve problems.
- Time can be told and written to the nearest 5 minutes. Time can be expressed using different units that are related to each other.
- Time can be described before and after the hour in different ways.
- Certain time periods can be described using the abbreviations a.m and p.m.

Essential Questions

- How can you find the total value of a group of coins?
- What are some strategies you can use to help you solve word problems about money?
- How can you find the total value of a group of dollar bills?
- What are some strategies you can use to help you solve word problems about money?
- How can you find all the different ways to make a total amount of money?
- How can you use clocks to tell time?
- What are some different ways to say the time of day?
- When do you use a.m. and when do you use p.m. to describe the time of day?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

Math Notebook

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

K-5 Math Teaching Resources https://www.k-5mathteachingresources.com

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 8-1 Solve Problems with Coins (1 day)	SWBAT solve problems with coins.	**Solve and Share**: Students are asked to add three given values expressed in cents. **Visual Learning**: How can you find the total value of a group of coins? **Convince Me**: Students examine the relationship between coins of lesser values and those of greater values. After students tell the value of a half-dollar, have them show a group of quarters, a group of dimes, and a group of nickels that equal the same amount. Ask students how many pennies equal a half-dollar. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction	• Daily Review 8-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-1

		with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build. • enVision STEM Activity 8-1	
Lesson 8-2 Continue to Solve Problems with Coins (1 day)	SWBAT solve problems with coins.	**Solve and Share**: Students solve a subtraction word problem involving coins. **Visual Learning**: What are some strategies you can use to help you solve word problems about money? **Convince Me**: Students describe how doing computations with money is like adding and subtracting whole numbers. Some students may also note that you can use coins to show the computations with money. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group.	• Daily Review 8-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-2

		Suggested Center Activities: • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build. • Problem-Solving Leveled Reading Mat/ Activity 8-2	
Lesson 8-3 Solve Problems with Dollar Bills (1 day)	SWBAT solve problem with dollar bills and coins that model 100 cents.	**Solve and Share**: Students use coins to find one way to make 100 cents. **Visual Learning**: How can you find the total value of a group of dollar bills? **Convince Me**: Students consider the similarities and differences with counting coins and dollars. Ask students to explain why it is helpful to count-on from the coin or bill with the greatest value. **Guided Practice**:	• Daily Review 8-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-3

		Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build. • Problem Solving Leveled Reading Mats/ Activity 8-3	
Lesson 8-4 Continue to Solve Problems with Dollar Bills (1 day)	SWBAT solve more problems with dollar bills.	**Solve and Share**: Students solve a word problem by determining the number of dimes and nickels that are equal to a $1 bill. **Visual Learning**: What are some strategies you can use to help you solve word problems about money? **Convince Me**: Students determine whether another way of	• Daily Review 8-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-4

		solving the word problem results in the same answer and explain their reasoning. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build.	
Lesson 8-5 Problem Solving: Reasoning (1 day)	SWBAT tell and write time to the nearest five minutes.	**Solve and Share**: Students find ways to make 35 cents using quarters, dimes, and nickels. **Visual Learning**: How can you find all the different ways to make a total amount of money. **Convince Me**: Remind students to check their equations with the table to make sure the coin	• Daily Review 8-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-5

		combinations match. Have students explain why the equations they write should only show two of the combinations on the table. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Fluency-Add and Subtract Within 100 **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build.	
Lesson 8-6 Tell and Write Time to Five Minutes (1 day)	SWBAT tell and write time to the nearest five minutes.	**Solve and Share**: Students identify activities that take about 15 minutes and less than 15 minutes. **Visual Learning**: Ask the following Essential Question: How can you use	• Daily Review 8-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build

		clocks to tell time? **Convince Me**: Students tell where the hour hand and minute hand are located when the time is 9:35. Have students explain how they determined each location. Discuss how using a clock face can be helpful. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build.	Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-6
Lesson 8-7 Tell Time Before and After the Hour (1 day)	SWBAT say the time in different ways.	**Solve and Share**: Students describe various ways to say the time using both digital and analog clocks. **Visual Learning**:	• Daily Review 8-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy

		What are some different ways to say the time of day? **Convince Me**: Students write different ways to say the same time. For a deeper understanding, give students opportunities to talk about ways they have heard time expressed. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build.	• Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-7
Lesson 8-8 A.M. and P.M. (1 day)	SWBAT tell time and use reasoning to state if the event is happening in	**Solve and Share**: Students write something they do in the morning, something they do in the evening, and some things	• Daily Review 8-8 • Guided Practice • Independent Practice/ Problem Solving

	the a.m. or p.m.	they do in both the morning and evening. **Visual Learning**: When do you use a.m. and when do you use p.m.to describe the time of day? **Convince Me**: Give students a list of activities and have them say whether the time for each activity would be a.m or p.m. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Save the Word **Optional Activities**: • Pick a Project Activity pg 327-328. Students can choose an activity to build.	• Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 8-8

		• enVision STEM Activity 8-8	
Review Topic 8 Work with Time and Money (1 day)	SWBAT Students review vocabulary words used in the topic. Review strategies in preparation for assessment.	Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Reteaching pages
Topic 8 Assessment: Work with Time and Money	SWBAT complete Topic 8 Assessment independently.	Topic 8 Assessment: Students will independently complete Topic 8 Assessment. **Suggested center activities:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math	Topic 8 Assessment

		Category	

Standards

MATH.2.M.C.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
MATH.2.M.C.8	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- enVision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples

- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision Stem Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 9: Numbers to 1,000

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **2nd Trimester**
Length: **12 days**
Status: **Published**

Summary of the Unit

In Topic 9, students' understanding of place value is extended to 1,000. This understanding serves as a foundation for adding and subtracting within 1,000

Enduring Understandings

- Numbers can be used to tell how many. The number system is based on groups of ten. Whenever there are 10 in one place value, you move to the next greater place value.
- The number system is based on groups of ten. Whenever there are 10 in one place value, you move to next greater place value. Place-value blocks and drawings can be used to model and write three-digit numbers.
- The position of a digit in a number tells its value. It takes 10 of a number in one place value to make a number in the next greater place value.
- There are three common ways to write numbers-standard form, word form, and expanded form. Each way involves using place value to tell the value of each digit.
- Numbers can be made in many ways. Recalling and using facts about equal amounts (such as 100 is equal to 10 tens, and 10 is equal to 10 ones) can help you name numbers in different ways.
- Place-value patterns can help you mentally count by 1s and 10s from a given number.
- Place-value patterns and number lines can be used to help you skip count by 5s, 10s and 100s.
- Place-value strategies can be used to compare numbers. The symbols >,=,and < can be used to show h the numbers are related.
- Number lines go on forever in both directions. For every number, there is another number that is great than it, and another number that is less than it. A number line can be used to help you find the numbers that are greater than or less than a given number.
- Good math thinkers look for patterns in math to help solve problems.

Essential Questions

- How can you find the value of a group of hundreds?
- How can you show and write 3-digit numbers?
- How does the position of a digit help you name its value?
- How can you write a 3-digit number in three different forms?
- How can you use hundreds, tens and ones to make a number in different ways?
- How can you use place-value patterns to help you count by 1s and 10s from a given number, such as 346?
- How can you use skip counting to find missing numbers on a number line?

- How can you compare two numbers?
- How can you use a number line to help you find a number that is greater than or less than a given number?
- How can you find the number that comes next in a number pattern?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 9-1 **1 More, 1 Less; 10 More, 10 Less** **1 Day**	SWBAT find numbers that are more or less than a given number.	**Solve and Share**: Students solve a problem finding 1 more and 10 more than a number. Their work shows prior and emerging understandings you can build on during the Visual Learning Bridge. **Visual Learning**: How does a number change when you find the number that is 1 more, 1 less, 10 more, and 10 less than that number? **Convince Me:** Write several two-digit numbers on the board. Have students find the number that is 10 more than each number. Point out that	Guided Practice Independent Practice Problem Solving Practice Buddy Reteaching Build Mathematical Literacy Enrichment Additional Practice Quick Check 9-1

		with each number, the tens digit increases by 1. **Guided Practice**: Portion of "Guided Practice" for the whole group. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category **Optional Activities**: This activity revisits the enVision STEM theme. Light and Objects, introduced on page 361 in the Student's Edition.	
Lesson 9-2 **Find Numbers on a Hundred Chart** **1 day**	SWBAT use a hundred chart to find 1 more,1 less, and 10 more, 10 less.	**Solve and Share**: Students use a hundred chart to help them find 1 more, 1 less, 10 more, and 10 less than a number. **Visual Learning**: How do you find the number that is 1 ore, 1 less, 10 more, 10 less than a number on a hundred chart?	Guided Practice Independent Practice Problem-Solving Practice Buddy Reteaching Build Mathematical Literacy Enrichment Additional Practice

		Convince Me: Have students explain how numbers change when they show 10 more. **Guided Practice**: Portion of "Guided Practice" for the whole group. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category **Optional Activities**: Have students continue to work on a project introduced on page 363 in the Student's Edition.	Quick Check 9-2
Lesson 9-3 **Compare Numbers** **1 day**	SWBAT use place-value blocks to compare 2 -digit numbers.	**Solve and Share**: Students compare two 2-digit numbers using place-value blocks. **Visual Learning**: How can you compare 2 two-digit numbers to tell which one is greater? **Convince Me:** Have students explain how to compare the 2 numbers. By comparing the	Guided Practice Independent Practice Problem-Solving Practice Buddy Reteaching Build Mathematical Literacy Enrichment Additional Practice Quick Check 9-3

		tens, students can justify that 38 is greater. **Guided Practice**: Portion of "Guided Practice" for the whole group. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category **Optional Activities**: Have students read the Problem-Solving Leveled Reading Mat for Topic 9 and then complete Problem-Solving Reading activity 9-3. The reading is leveled on the two sides of the mat.	
Lesson 9-4 Compare Numbers with Symbols (>,<,=) 1 day	SWBAT **c**ompare two numbers using a greater than a less than, or an equal to sign.	**Solve and Share**: Students compare 2 numbers using greater than, and less than. **Visual Learning**: How would you compare two numbers	Guided Practice Independent Practice Problem-Solving Practice Buddy Reteaching

		using symbols? **Convince Me:** Which digits should you compare first? (the tens digits) Does comparing the tens digits tell which number is greater? (No the tens digits are the same. I have to compare the ones digits to see which number is greater. **Guided Practice**: Portion of "Guided Practice" for the whole group. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category **Optional Activities**: Have students read the Problem-Solving Leveled Reading Mat for Topic 9 and then complete Problem-Solving Reading	Build Mathematical Literacy Enrichment Additional Practice Quick Check 9-4

		activity 9-4. The reading is leveled on the two sides of the mat.	
Lesson 9-5 Compare Numbers on a Number Line. 1 day	SWBAT **C**ompare and write two-digit numbers that are greater than or less than other two-digit numbers.	**Solve and Share**: Students use a number line to find a number that is greater than a number e that is less than a given number. **Visual Learning**: **Convince Me:** How can you use a number line to compare two numbers? **Guided Practice**: Portion of "Guided Practice" for the whole group. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category **Optional Activities**: Have students continue to work on a project introduced on page	Guided Practice Independent Practice Problem-Solving Practice Buddy Reteaching Build Mathematical Literacy Enrichment Additional Practice Quick Check 9-5

		363 in the Student's Edition.	
Lesson 9-6 Problem Solving: Make Sense and Persevere 1 day	SWBAT make sense of a problem and find the best way to solve it.	**Solve and Share**: Students solve a riddle by comparing numbers and identifying the number of sides that shapes have. **Visual Learning**: How does making a list help you to find a secret number when you are given clues about comparing numbers? **Convince Me:** Present students with 2 clues about another secret number. Tell students to solve the problem without making a list. Discuss the advantages of using a list. **Guided Practice**: Portion of "Guided Practice" for the whole group. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math	Guided Practice Independent Practice Problem-Solving Practice Buddy Reteaching Build Mathematical Literacy Enrichment Additional Practice Quick Check 9-6

		Category **Optional Activities**: This activity revisits the enVisionSTEM theme Light and Objects, introduced on page 361 in the Students' Edition.	
Review Topic 9 Fluency Practice Activity: Compare Two-digit Numbers 1 day	SWBAT practice accurately and efficiently adding and subtracting within 10 during a partner activity. Students review vocabulary words used in the topic. Review strategies in preparation for assessment.	Fluency Practice Activity: Students practice accurately and efficiently adding to 10 during a partner activity. Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math	Reteaching pages

		• My Math Academy • BrainPop Jr. Math Category	
Topic 9 Assessment Compare Two-Digit Numbers 1 day	SWBAT complete Topic 9 Assessment independently.	Topic 9 Assessment: Students will independently complete Topic 8 Assessment. **Suggested center activities:** • My Math Academy	Topic 9 Assessment

Standards

MATH.2.NBT.A	Understand place value
MATH.2.NBT.A.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
MATH.2.NBT.A.1.a	100 can be thought of as a bundle of ten tens — called a “hundred.”
MATH.2.NBT.A.1.b	The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
MATH.2.NBT.A.2	Count within 1000; skip-count by 5s, 10s, and 100s.
MATH.2.NBT.A.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
MATH.2.NBT.A.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
MATH.2.NBT.B	Use place value understanding and properties of operations to add and subtract

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables

- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (Envision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 10: Add Within 1,000 Using Models and Strategies

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **2nd Trimester**
Length: **9 days**
Status: **Published**

Summary of the Unit

Topic 10 focuses on expanding students' understanding of addition to 3-digit numbers using models and strategies. Students explain why addition strategies work using place value and properties of operations.

Enduring Understandings

- Place-value patterns and basic facts can be used to help you mentally add 10 and 100 to any given 3-digit number.
- Three-digit numbers can be broken apart using hundreds, tens, and ones and added in different ways.
- When adding three-digit numbers, hundreds are added to hundreds, tens to tens, and ones to ones.
- When adding three-digit numbers, different strategies can be used to find the correct sum.
- Good math thinkers look for things that repeat in a problem. They use what they learn from one person to help them solve other problems.

Essential Questions

- How can you use mental math to add 10 (or100) to a 3-digit number?
- How can you use an open number line to add 3-digit numbers?
- How can you use models to add 3-digit numbers?
- How can you use Partial sums to add 3-digit numbers?
- How can you use place value and partial sums to add 3-digit numbers?
- How can you explain why addition strategies work?
- How can repeated reasoning help you add 3 digit numbers?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 10-1 Add 10 and 100 (1 day)	SWBAT add 10 and 100 mentally using place value strategies.	**Solve and Share**: Students solve a word problem that involves adding $10 and $100 to $125. **Visual Learning**: How can you use mental math to add 10 (or 100) to a 3-digit number? **Convince Me**: Have students explain how they used mental math to add 10 and 100 to a 3-digit number. Then ask them to explain why their strategy works. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities:	• Daily Review 10-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-1

		• My Math Academy • ST Math • Envision Math Game: Add It- 2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 432. Students can choose an activity to build.	
Lesson 10-2 Add on an Open Number Line (1 day)	SWBAT use an open number line to add 3-digit numbers.	**Solve and Share**: Students demonstrate how to use an open number line to find the sum of two 3-digit numbers. **Visual Learning**: How can you use an open number line to add 3-digit numbers. **Convince Me**: After students explain in writing how they would add the two 3-digit numbers using an open number line, have them use Teaching Tool 14 to show their solution and to check their explanation. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math	• Daily Review 10-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-2

		• enVision Math Game: Gobbling Globs-Hundreds found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 432. Students can choose an activity to build. • Problem Solving Leveled Reading Mat/ Activity 10-2	
Lesson 10-3 Add Using Models (1 day)	SWBAT add 3-digit numbers using models.	**Solve and Share**: Students add two 3-digit numbers, using place-value blocks and drawings of blocks. **Visual Learning**: How can you use models to add 3-digit numbers? **Convince Me**: Students should reflect on how they knew to regroup the ones when thinking about whether or not they should regroup the tens. Remind students that it takes 10 tens to make 1 hundred. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math	• Daily Review 10-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-3

		• enVision Math Game: Add It- 2-Digit Number found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 432. Students can choose an activity to build.	
Lesson 10-4 Continue to Add Using Models and Place Value (1 day)	SWBAT use models and place value to add 3-digit numbers.	**Solve and Share**: Students use models and place value to add two 3-digit numbers as they solve a word problem. **Visual Learning**: How can you use partial sums to add 3-digit numbers? **Convince Me**: Students understand that they can use partial sums to add 3-digit numbers by adding hundreds, tens, and ones, and then adding partial sums. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Add It- 2-Digit Number found on PearsonRealize.com **Optional Activities**:	• Daily Review 10-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-4

		• Pick a Project Activity pg 432. Students can choose an activity to build. • enVision STEM Activity 10-4	
Lesson 10-5 Add Using Place Value and Partial Sums (1 day)	SWBAT add 3-digit numbers using place value and partial sums.	**Solve and Share**: Students use different strategies to solve a word problem involving 3-digit numbers. Students also explain their thinking about how they use the strategies. **Visual Learning**: How can you use place value and partial sums to add 3-digit numbers? **Convince Me**: Have students explain why the order in which they add the partial sums will not change the sum. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Gobbling Globs- Hundreds found on PearsonRealize.com **Optional Activities**:	• Daily Review 10-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-5

		• Pick a Project Activity pg 432. Students can choose an activity to build.	
Lesson 10-6 Explain Addition Strategies (1 day)	SWBAT use different addition strategies and explain why they work.	**Solve and Share**: Students choose and explain a strategy to add two 3-digit numbers. **Visual Learning**: How can you explain why addition strategies work? **Convince Me**: To construct an argument here, students must explain how the specific strategy they have chosen works. If needed, ask questions to clarify. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 432. Students can choose an activity to build. • enVision STEM Activity 10-6	• Daily Review 10-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-6
Lesson 10-7 Problem Solving:	SWBAT identify calculations or	**Solve and Share**: Students identify similarities	• Daily Review 10-7 • Guided Practice

Repeated Reasoning (1 day)	steps that repeat when solving problems.	when adding two 2-digit numbers and two 3-digit numbers. **Visual Learning**: How can repeated reasoning help you add 3-digit numbers? **Convince Me**: Make sure students understand and can articulate why the order in which they add the two 2-digit numbers will not change the sum. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Fluency- Add and Subtract Within 100 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 432. Students can choose an activity to build. • Problem-Solving Leveled Reading Mat/ Activity 10-7	• Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 10-7

Review Topic 10: Add Within 1,000 Using Models and Strategies (1 day)	SWBAT review vocabulary words used in the topic. Review strategies in preparation for assessment.	Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Reteaching pages
Topic 10 Assessment: Add Within 1,000 using Models and Strategies (1 day)	SWBAT complete Topic 10 Assessment independently.	Topic 10 Assessment: Students will independently complete Topic 10 Assessment. **Suggested center activities:** • My Math Academy **Technology activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 10 Assessment

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.A.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
MATH.2.NBT.B	Use place value understanding and properties of operations to add and subtract
MATH.2.NBT.B.5	With accuracy and efficiency, add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
MATH.2.NBT.B.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. 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.
MATH.2.NBT.B.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.

- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 11: Subtract Within 1,000 Using Models and Strategies

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **3rd Trimester**
Length: **8 days**
Status: **Published**

Summary of the Unit

Topic 11 focuses on expanding students' understanding of subtraction within 100 to subtraction within 1,000, using models and strategies. Students explain why subtraction strategies work using place value and properties of operations.

Enduring Understandings

- Place-value patterns and basic facts can be used to help you mentally subtract 10 or 100 from any given three-digit number.
- Three-digit numbers can be broken apart using hundreds, tens and ones.
- When subtracting three-digit numbers, hundreds are subtracted from hundreds, tens from tens, and ones from ones.
- When subtracting three-digit numbers, different strategies can be used to find the correct difference.
- Good math thinkers know what the problem is about.

Essential Questions

- How can you use mental math to subtract 10 (or 100) from a 3-digit number?
- How can you use an open number line to solve a subtraction problem?
- How can models help you regroup to subtract 3-digit numbers?
- How can you use models and place value to subtract 3-digit numbers?
- How can you explain why subtraction strategies work?
- How can you make sense of a word problem that has a hidden question, and what steps can you use to solve it?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 11-1 Subtract 10 and 100 (1 day)	SWBAT Subtract 10 or 100 mentally using place-value strategies.	**Solve and Share**: Students solve a word problem involving subtracting $10 and $100 from $134. **Visual Learning**: How can you use mental math to subtract 10 (or 100) from a 3-digit number? **Convince Me**: Encourage students to share their reasoning and approaches to these problems with a partner and compare answers. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities:	• Daily Review 11-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 11-1

		• My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 471. Students can choose an activity to build. • Problem-Solving Leveled Mats/ Activity 11-1	
Lesson 11-2 Subtract on an Open Number Line (1 day)	SWBAT use an open number line to subtract 3-digit numbers.	**Solve and Share**: Students use and draw models to solve a subtraction word problem with two-3-digit numbers. **Visual Learning**: How can models help you regroup to subtract 3-digit numbers? **Convince Me**: Students explain why the regrouping works in the problem in the Visual Learning Bridge. They should analyze how the place-value blocks model the numbers in the problem and in the place-value relationship. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy"	• Daily Review 11-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 11-2

		• "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 471. Students can choose an activity to build.	
Lesson 11-3 Subtract Using Models (1 day)	SWBAT use models to subtract 3 digit numbers.	**Solve and Share**: Students use or draw place-value blocks to solve a 3-digit-from-3-digit subtraction problem. **Visual Learning**: How can models help you regroup to subtract 3-digit numbers? **Convince Me**: Students explain why the regrouping works in the problem in the Visual Learning Bridge. They should analyze how the place-value blocks model the numbers in the problem and in the place-value relationship. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical	• Daily Review 11-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 11-3

		Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 471. Students can choose an activity to build.	
Lesson 11-4 Subtract Using Models and Place Value (1 day)	SWBAT use models and place value to subtract.	**Solve and Share**: Students use or draw place-value blocks to solve 3-digit-from-3-digit subtraction problems. **Visual Learning**: How can you use models and place value to subtract 3-digit numbers? **Convince Me**: Students consider whether or not Jason is correct in his thinking. Students can solve 254-174 by first subtracting hundreds, then ones, and then tens to find that 80 is the difference. **Guided Practice**: Complete a portion of “Guided Practice” as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete “Independent Practice” and “Problem Solving” • “Reteach to Build” • “Build Mathematical	• Daily Review 11-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 11-4

		Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 471. Students can choose an activity to build.	
Lesson 11-5 Explain Subtraction Strategies (1 day)	SWBAT explain why subtraction strategies work using models, place value, and mental math.	**Solve and Share**: Students choose a strategy for subtracting 3-digit numbers and explain why their strategy works. **Visual Learning**: How can you explain why subtraction strategies work? **Convince Me**: Have students share their responses about the strategy. **Guided Practice**: Complete a portion of “Guided Practice” as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete “Independent Practice” and “Problem Solving” • “Reteach to Build” • “Build Mathematical Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy	• Daily Review 11-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 11-5

		• ST Math • enVision Math Game: Flying Cow Incident- 2-Digit Number. Found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 471. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/Activity 11-5	
Lesson 11-6 Problem Solving: Persevere (1 day)	SWBAT solve problems that take more then one step.	**Solve and Share**: Student find and solve a hidden question in order to solve a two-step word problem. **Visual Learning**: How can you make sense of a word problem that has a hidden question, and what steps can you use to solve it? **Convince Me**: Have students share the questions they would ask. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 11-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 11-6

		Technology: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Flying Cow Incident- 2-Digit Numbers **Optional Activities**: • Pick a Project Activity pg 471. Students can choose an activity to build. • enVision STEM Activity 11-6	
Review Topic 11: Subtract Within 1,000 Using Models and Strategies (1 day)	SWBAT practice Students review vocabulary words used in the topic. Review strategies in preparation for assessment.	Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Reteaching pages
Topic 11 Assessment:	SWBAT complete Topic 11	Topic 11 Assessment: Students will independently	Topic 11 Assessment

Subtract Within 1,000 Using Models and Strategies (1 day)	Assessment independently.	complete Topic 11 Assessment. **Suggested center activities:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	

Standards

MATH.2.OA.A	Represent and solve problems involving addition and subtraction
MATH.2.OA.A.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
MATH.2.OA.B.2	With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
MATH.2.NBT.A	Understand place value
MATH.2.NBT.A.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
MATH.2.NBT.A.1.a	100 can be thought of as a bundle of ten tens — called a “hundred.”
MATH.2.NBT.A.1.b	The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
MATH.2.NBT.A.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
MATH.2.NBT.B.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. 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.
MATH.2.NBT.B.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
MATH.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math

- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 12: Measuring Length

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **3rd Trimester**
Length: **11 days**
Status: **Published**

Summary of the Unit

Topic 12 focuses on using appropriate tools to estimate, measure, and compare length using customary units (Inches, feet, and yards) and metric units (centimeters and meters). This unit also addresses the inverse relationship between the size of a unit and the number of units needed to measure a given object.

Enduring Understandings

- The length of a known object can be used to estimate the length of another object to the nearest inch, foot, or yard.
- Length and height are measurable in inches.
- Length and height are measurable in inches, feet, and yards.
- When measuring length, the longer the chosen unit, the fewer the units needed; the shorted the unit, th more units needed.
- Length and height are measurable in centimeters.
- Length and height are measurable in centimeters and meters.
- The lengths of two objects can be compared by subtracting to find the distance.
- Good math thinkers are careful about what they write and say, so their ideas about math are clear.

Essential Questions

- How can you use the length of objects you know to estimate the lengths of other objects?
- How can you use a ruler to measure the length or height of an object?
- How can you measure the length or height of an object in inches, feet, or yards?
- Why do you need more or fewer of some units to measure the length of an object in inches, feet, or yards?
- How can you use a centimeter ruler to measure length or height to the nearest centimeter?
- How can you measure the length or height of an object in meters or centimeters?
- Why do you need more or fewer of some units to measure the length of an object in meters or centimeters?
- How can you find how much longer one length is than another?
- How can you tell if your work is precise when measuring length?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 12-1 Estimating Length (1 day)	SWBAT estimate the length of an object by relating the length of an object to a known measurement.	**Solve and Share**: Students use references for 1 inch and 1 foot to find objects that are about 1 inch or 1 foot long. **Visual Learning**: How can you use the lengths of objects you know to estimate the lengths of other objects? **Convince Me**: Students think about the objects they know to determine if their heights are closer to 4 feet than to 4 yards. Look for opportunities to make more comparisons. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group	• Daily Review 12-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-1

		instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 12-1	
Lesson 12-2 Measure with Inches (1 day)	SWBAT estimate measures and use a ruler to measure length and height to the nearest inch.	**Solve and Share**: Students use 1-inch squares to measure a line to the nearest inch. **Visual Learning**: How can you use a ruler to measure the length or height of an object. **Convince Me**: Students estimate and measure to identify objects that are about 12 inches long. Have students look for objects that are about 12 inches long before they measure with a ruler to verify their estimates.	• Daily Review 12-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-2

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build.	
Lesson 12-3 Inches, Feet, and Yards (1 day)	SWBAT estimate measures and use tools to measure the length and height of objects to the nearest inch, foot, and yard.	**Solve and Share**: Students identify objects that are about 1 inch, 1 foot, and 1 yard in length. **Visual Learning**: How can you measure the length or height of an object in inches, feet, or yards? **Convince Me**: Students explain whether it would be more reasonable to use inches or yards. **Guided Practice**:	• Daily Review 12-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-3

		Complete a portion of “Guided Practice” as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete “Independent Practice” and “Problem Solving” • “Reteach to Build” • “Build Mathematical Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy • ST Math • Fluency- Add and Subtract Within 100 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build.	
Lesson 12-4 Measure Length Using Different Customary Units (1 day)	SWBAT estimate and measure the length and height of objects in inches, feet, and yards.	**Solve and Share**: Students measure objects in feet and in inches, and then compare the number of units used. **Visual Learning**: Why do you need more or fewer of some units to measure the length of an object in inches, feet, or yards? **Convince Me**: Name other objects that have a length or height that can be measured. Ask students to explain which unit they would use to measure the length (or	• Daily Review 12-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-4

		height) of each object. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Gobbling Globs- Tens and Hundreds found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build.	
Lesson 12-5 Measure with Centimeters (1 day)	SWBAT estimate measures and use a ruler to measure length and height to the nearest centimeter.	**Solve and Share**: Students use centimeter cubes to measure the length of a line in centimeters. **Visual Learning**: How can you use a centimeter ruler to measure length or height to the nearest centimeter? **Convince Me**: Students describe how they can look at a ruler to determine that the length of the paper clip is closer to the 3-centimeter mark than it is to any other	• Daily Review 12-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-5

		number of centimeters on the ruler. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build.	
Lesson 12-6 Centimeters and Meters (1 day)	SWBAT estimate measures and use a ruler, meter stick, or tape measure to measure length and height to the nearest centimeter or meter.	**Solve and Share**: Students find classroom objects that are about 3 centimeters and 1 meter long. **Visual Learning**: How can you measure the length or height of an object in meters or centimeters? **Convince Me**: Discuss the purpose of smaller and larger units of measurement. Ask pairs of students to measure the length of a desk. Have one partner use a centimeter ruler and the other use a meter stick. Ask them to tell which tool is the	• Daily Review 12-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-6

		better one to use. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build.	
Lesson 12-7 Measuring Length Using Different Metric Units (1 day)	SWBAT measure the length and height of objects using different metric units.	**Solve and Share**: Students measure a picture of a pencil in inches and centimeters, and then compare the number of units used. **Visual Learning**: Why do you need more or fewer of some units to measure the same object in meters or centimeters? **Convince Me**: Help students demonstrate how to measure the length of one wall of the classroom, first using centimeters and then meters. Have them apply their learning from this task when answering the question.	• Daily Review 12-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 12-7

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Gobbling Globs- Tens and Hundreds found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/Activity 12-7	
Lesson 12-8 Compare Lengths (1 day)	SWBAT tell how much longer one object is than another.	**Solve and Share**: Students compare and estimate lengths and discuss how to check their work. **Visual Learning**: How can you find how much longer one length is than another? **Convince Me**: Have students explain why both parts of the path must be measured in order to get an	• Daily Review 12-8 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice

		accurate measurement. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Save the Word- Topic 1-12 found on PearsonRealize.com **Optional Activities**: • Climate Change Activity: Students will solve problems that have to do with a climate change related issue. See below. • enVision STEM 12-8	• Quick Check 12-8
Lesson 12-9 Problem Solving: Precision (1 day)	SWBAT choose tools, units, and methods that help to be precise when measuring.	**Solve and Share**: Students identify ways to measure with precision the length of a shape that is not straight. **Visual Learning**: How can you tell if your work is precise when measuring length? **Convince Me**: Students explain how using an	• Daily Review 12-9 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment

		appropriate tool can give a more precise measurement. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Fluency- Add and Subtract Within 100 found on PEarsonRealize.com **Optional Activities**: • Pick a Project Activity pg 507-508. Students can choose an activity to build. • enVision STEM Activity 12-9	• Additional Practice • Quick Check 12-9
Review Topic 12: Measuring Length (1 day)	SWBAT review vocabulary words used in the topic. Review strategies in preparation for assessment.	Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher-led small group instruction with differentiated groupings	Reteaching pages

		• Additional "Guided Practice" • Independent Practice • Problem-solving • Hands-on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	
Topic 12 Assessment: Measuring Length (1 day)	SWBAT complete Topic 12 Assessment independently.	Topic 12 Assessment: Students will independently complete Topic 12 Assessment. **Suggested center activities:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • BrainPop Jr. Math Category	Topic 12 Assessment

Climate Change Activity

2.M.B.5 Students will collect data about the change of size of a local landfill over the course of several years. The students will use results to create addition and subtraction word problems within 100.

Standards

MATH.2.M.A	Measure and estimate lengths in standard units
MATH.2.M.A.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
MATH.2.M.A.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

MATH.2.M.A.3	Estimate lengths using units of inches, feet, centimeters, and meters.
MATH.2.M.A.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
MATH.2.M.B	Relate addition and subtraction to length
MATH.2.M.B.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (Envision) and Model with Math

- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (Envision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 13: Shapes and Their Attributes

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **3rd Trimester**
Length: **10 days**
Status: **Published**

Summary of the Unit

In Topic 13, students investigate attributes of shapes and use them to identify and draw triangles, quadrilaterals, pentagons, hexagons, and cubes. They partition plane figures into equal shares and use fraction terminology to describe the shares.

Enduring Understandings

- Two-dimensional shapes can be classified and sorted based on their attributes.
- Polygons can be described by their number of sides and angles.
- Two-dimensional shapes can be defined and differentiated based on attributes. These attributes can be used to draw a specific 2-dimensional shape.
- You can describe a cube by talking about its faces, edges, and vertices. Knowing these attributes help you draw a cube.
- A rectangle can be partitioned into rows and columns of squares that are all the same size; you can cou or add in different ways to find the total number of squares.
- A whole can have equal shares called halves, thirds, and fourths. You can show halves, thirds, and fourths of the same whole in different ways.
- You can partition a whole into equal shares in different ways. Equal shares of the same whole do not have to have the same shape.
- Good math thinkers look for things that repeat in a problem. They use what they learn from one proble to help them solve other problems.

Essential Questions

- How can you tell the name of a 2-dimensional shape?
- How can you tell if a shape is a polygon?
- What information should you give to others if you want them to draw a particular polygon?
- How do you use the words faces, edges, and vertices to describe a cube?
- What are two different ways to find the total number of equal-sized squares that cover a rectangle?
- When you show a shape with two/three/four equal shares, what are the shares called?
- Do equal shares have to be the same size and shape? Explain.
- How can you use repeated reasoning to divide shapes into equal share

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 13-1 2-Dimensional Shapes (1 day)	SWBAT recognize shapes by how they look.	**Solve and Share**: Students solve a puzzle that involves counting triangles. **Visual Learning**: How can you tell the name of a 2-dimensional shape **Convince Me**: Students may look at two or more different polygons to help them think about how they are named. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build"	• Daily Review 13-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-1

		• "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build.	
Lesson 13-2 Polygons and Angles (1 day)	SWBAT describe plane shapes by how they look.	**Solve and Share**: Students compare three plane shapes based on how they look alike and different **Visual Learning**: How can you tell if a shape is a polygon? **Convince Me**: If students have trouble identifying the shape that is shown, ask them to count the number of sides and vertices. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 13-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-2

		Technology: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build. • Problem Solving Leveled Reading Mats/Activity 13-2	
Lesson 13-3 Draw 2-Dimensional Shapes (1 day)	SWBAT draw polygon shapes.	**Solve and Share**: In this activity, students draw polygons based on the number of sides and the lengths of sides. They measure the lengths of the sides. Then they tell four ways the different polygons are alike. **Visual Learning**: What information should you give to others if you want them to draw a particular polygon? **Convince Me**: Remind students that part of a good communication is the ability to listen to and read mathematical text closely to understand what information is given and what is being asked. Have students explain what they know and what they need to do to solve the problem. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:**	• Daily Review 13-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-3

		• Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build. • enVision STEM Activity 13-3	
Lesson 13-4 Cubes (1 day)	SWBAT draw cubes and describe how they look	**Solve and Share**: Students describe the properties of a cube and a square in four or more ways. **Visual Learning**: How do you use the words faces, edges, and vertices to describe a cube? **Convince Me**: Discuss why the faces of a cube must be squares of the same size. What would happen if the cube were not made of squares that are the same size? **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:**	• Daily Review 13-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-4

		• Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build. • enVision STEM Activity 13-4	
Lesson 13-5 Equal Shares (1 day)	SWBAT partition rectangles into equal-size squares.	**Solve and Share**: Students find the number of equal squares that cover a rectangle and then represent the squares by writing an equation. **Visual Learning**: What are two different ways to find the total number of equal-sized squares that cover a rectangle? **Convince Me**: Have students work in pairs. Have one student demonstrate how to count by rows and have another student demonstrate how to count by columns when covering a square with equal-sized squares.	• Daily Review 13-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-4

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Power House-Equal Groups to 25 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build.	
Lesson 13-6 Partition Shapes (1 day)	SWBAT partition circles and rectangles into halves, thirds, and fourths.	**Solve and Share**: Students fold paper squares into 2 and 4 equal shares. **Visual Learning**: When you show a shape with two/three/four equal shares, what are the shares called? **Convince Me**: Have students explain why their drawing shows thirds. Brainstorm a list of real-world objects that students can partition into	• Daily Review 13-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-6

		equal shares , and guide them to use the correct terms. For example, they may cut toast into halves and pizza into fourths. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build.	
Lesson 13-7 Equal Shares, Different Shapes (1 day)	SWBAT make equal shares that do not have the same shape.	**Solve and Share**: Students partition a shape into 4 equal shares, and then compare their answers with a partner. **Visual Learning**: Do equal shares have to be the same size and shape? Explain. **Convince Me**: Have students work with partners to check that the	• Daily Review 13-7 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 13-7

		shares are equal. Students' arguments should focus on checking to make sure that each share is the same size by counting the number of same-sized small squares in each share. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build.	
Lesson 13-8 Problem Solving: Repeated Reasoning (1 day)	SWBAT use repeated reasoning to show rectangles with rows and columns and create designs with equal shares.	**Solve and Share**: Students show two different ways to divide a design into three equal shares, and they use repeated addition to write equations for their designs. **Visual Learning**: How can you use repeated reasoning to divide shapes	• Daily Review 13-8 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice

		into equal shares? **Convince Me**: Students should divide a shape into equal shares one way. Then they should count the number of squares in each share, and use the number to divide the shape into equal shares in different ways. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Save the Word: Topics 1-12 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 559. Students can choose an activity to build. • Problem-Solving Leveled Reading	• Quick Check 13-8

		Mats/ Activity 13-8	
Topic 13 Review: Shapes and Their Attributes (1 day)	SWBAT review vocabulary words used in the topic. Review strategies in preparation for assessment.	Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Reteaching pages
Topic 13 Assessment: Shapes and Their Attributes (1 day)	SWBAT complete Topic 13 Assessment independently.	Topic 13 Assessment: Students will independently complete Topic 13 Assessment. **Suggested center activities:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 13 Assessment

Standards

MATH.2.G.A	Reason with shapes and their attributes
MATH.2.G.A.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
MATH.2.G.A.2	Partition a rectangle into rows and columns of same-size squares and coun to find the total number of them.
MATH.2.G.A.3	Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples

- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Boar

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity

Topic 14: More Addition, Subtraction, and Length

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **3rd Trimester**
Length: **7 days**
Status: **Published**

Summary of the Unit

Topic 14 focuses on the application of understanding of addition and subtraction within 100 to solve word problems involving lengths. Students write and solve addition and subtraction equations using symbols for unknown values. Students also use number lines to represent whole-number sums and differences within 100

Enduring Understandings

- Measurements in the same unit, such as inches, can be added or subtracted in the same way as adding subtracting whole numbers. The measurement unit needs to be written with the sum or difference.
- Pictures and equations can be used to solve word problems involving measurement. Measurement can added and subtracted in the same way as other whole numbers.
- A sum can be represented as the total length of two line segments on a number line. A subtraction problem can be represented as the difference of two line segments on a number line.
- Good math thinkers know how to pick the right tools to solve math problems.

Essential Questions

- How do you know when to add or subtract when solving problems involving measurement?
- How can you solve addition and subtraction problems involving length?
- How can drawing a picture and writing an equation help you solve measurement word problems?
- How can you use a number line to help solve addition and subtraction problems involving length measurements?
- How can you pick the best tool to solve a problem

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

UNIT PLAN

Topic/Selection **Timeframe**	**General Objectives**	**Instructional Activities**	**Benchmarks/Assessments**
Lesson 14-1 Add and Subtract with Measurements (1 day)	SWBAT solve problems by adding or subtracting length measurements.	**Solve and Share**: Students measure the lengths of the sides of a rectangle in centimeters. **Visual Learning**: How do you know when to add or subtract when solving problems involving measurements? **Convince Me**: Students know that a square has four equal sides, so they should use this knowledge to solve the problem with precision. They should also use the correct units in their answer. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 14-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 14-1

		Technology: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 607-608. Students can choose an activity to build.	
Lesson 14-2 Find Unknown Measurements (1 day)	SWBAT add or subtract to solve problems about measurements.	**Solve and Share**: Students measure objects and add lengths to find a given total length. **Visual Learning**: How can you solve addition and subtraction problems involving length? **Convince Me**: Encourage students to share their answers. Listening to the explanations of others will help students to think about ways they can use drawings that they may not previously have considered, which they can apply to other problems. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment"	• Daily Review 14-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 14-2

		Technology: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 607-608. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 14-2	
Lesson 14-3 Continue to Find Unknown Measurements (1 day)	SWBAT add and subtract to solve measurement problems by using drawings and equations.	**Solve and Share**: Students draw a picture and write an equation to solve a measurement change-unknown word problem. **Visual Learning**: How can drawing a picture and writing an equation help you solve measurement word problems? **Convince Me**: Students use the example to explain how an equation helps them solve the problem. If time allows, ask students to explain which equation they would prefer to use to solve the problem shown in Frame A of the Visual Learning Bridge. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small	• Daily Review 14-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 14-3

		group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Envision Math Game: Robo Launch- Add and Subtract 2-Digit Numbers found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 607-608. Students can choose an activity to build. • enVision STEM Activity 14-3	
Lesson 14-4 Add and Subtract on a Number Line (1 day)	SWBAT Add and subtract on a number line.	**Solve and Share**: Students add a 2-digit number and a 1-digit number, considering the position of these numbers as distances on a number line. **Visual Learning**: How can you use a number line to help solve addition and subtraction problems involving length measurements? **Convince Me**: Students describe how to use a number line to represent addition.	• Daily Review 14-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 14-4

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 607-608. Students can choose an activity to build. • enVision STEM Activity 14-4	
Lesson 14-5 Problem Solving: Use Appropriate Tools (1 day)	SWBAT choose the best tool to use to solve problems.	**Solve and Share**: Students choose appropriate tools to measure and compare two line segments. They explain why they chose those particular tools. **Visual Learning**: How can you pick the best tool to solve a problem? **Convince Me**: Students make sense of this problem by considering how the word does not affect what the question is asking.	• Daily Review 14-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 14-5

		Guided Practice: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • Save the Word- Topic 1-12 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 607-608. Students can choose an activity to build. • Problem-Solving Leveled Reading Mats/ Activity 14-5	
Topic 14 Review: More Addition, Subtraction, and Length (1 day)	SWBAT review vocabulary words used in the topic. Review strategies in preparation for assessment.	Vocabulary Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated	Reteaching Pages

		groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Pearson Realize Power House-Equal Groups to 25 Math Game • Reteach to Build • Build Mathematical Literacy • Enrichment • Card game addition and subtraction War • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	
Topic 14 More Addition, Subtraction, and Length (1 day)	SWBAT complete Topic 14 Assessment independently.	Topic 14 Assessment: Students will independently complete Topic 14 Assessment. **Suggested center activities:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 14 Topic Assessment

Standards

MATH.2.M.A.4	Measure to determine how much longer one object is than another,

	expressing the length difference in terms of a standard length unit.
MATH.2.M.B.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
MATH.2.M.B.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Envision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.
- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples

- Daily lesson Visual Learning Bridge (Envision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (Envision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity

Topic 15: Graphs and Data

Content Area: **Grade 2 Mathematics**
Course(s): **Math**
Time Period: **3rd Trimester**
Length: **8 days**
Status: **Published**

Summary of the Unit

Topic 15 focuses on data literacy: collecting, representing, and interpreting data. Students practice measurement skills to generate measurement data which they display in a line plot. Students also use categorical data to create and interpret bar graphs and picture graphs.

Enduring Understandings

- The lengths of objects can be organized in different ways.
- DIfferent types of data can be displayed on a line plot. Line plots are useful for organizing large sets o data.
- Bar graphs can be used to organize and display data. The height, or length, of bars in a bar graph make easy to compare data.
- Picture graphs use a single symbol to show data. This makes it easy to compare two or more categorie
- Picture graphs and bar graphs are useful tools for comparing data and drawing conclusions.
- Good math thinkers know how to think about words and numbers to solve problems.

Essential Questions

- Why is it helpful to use a line plot to display data?
- Why are line plots a useful way to organize large amounts of data?
- Why is making a bar graph from a table of data a good way to compare those data?
- How does a picture graph help you compare data?
- Why are picture graphs and bar graphs useful tools for drawing conclusions about data?
- How can you use graphs to write and solve problems about data?

Summative Assessment and/or Summative Criteria

Topic Test

Quick Checks

Performance Task

Resources

enVision Mathematics

Pearson SuccessNet Math Series (digital and offline)

My Math Academy

ST Math online digital platform

Discovery Education math resources

Brain Pop online digital platform

Kahoot!

Unit Plan

Topic/Selection Timeframe	General Objectives	Instructional Activities	Benchmarks/Assessments
Lesson 15-1 Line Plots (1 day)	SWBAT measure the lengths of objects and make a line plot to organize the data.	**Solve and Share**: Students measure the lengths of objects in inches, record the information in a table, and then plot the data on a number line. **Visual Learning**: Why is it helpful to use a line plot to display data? **Convince Me**: Remind students of how to correctly align their ruler at the start of the pencil and how to measure to the nearest inch. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical	• Daily Review 15-1 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 15-1

		Literacy” • “Enrichment” **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 639. Students can choose an activity to build. • enVision STEM Activity 15-1	
Lesson 15-2 More Line Plots (1 day)	SWBAT measure the lengths of objects, then make a line plot to organize the data.	**Solve and Share**: Students measure the length of their shoes in inches, and then record that information on a line plot. **Visual Learning**: Why are line plots a useful way to organize large amounts of data? **Convince Me**: How can you use the line plot to find the total number of students who measured their height? **Guided Practice**: Complete a portion of “Guided Practice” as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete “Independent Practice” and	• Daily Review 15-2 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 15-2

		"Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 639. Students can choose an activity to build. • enVison STEM Activity 15-2	
Lesson 15-3 Bar Graphs (1 day)	SWBAT draw bar graphs and use them to solve problems.	**Solve and Share**: Students use the data in a bar graph to find the number of birthdays per season, and then record the information in a table. **Visual Learning**: Why is making a bar graph from a table of data a good way to compare those data? **Convince Me**: Students interpret the bar graph and explain their thinking. Ask students to look at the graph again and list the activities from most to least favorite and explain how they know. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center**	• Daily Review 15-3 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 15-3

		Activities: • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 639. Students can choose an activity to build.	
Lesson 15-4 Picture Graphs (1 day)	SWBAT draw picture graphs and use them to solve problems.	**Solve and Share**: Students add data to a graph with pictures and then use the graph to answer questions. **Visual Learning**: How does a picture graph help you compare data? **Convince Me**: Have students point to and read the key below the picture graph. Ask- Why do you need to include this information in a picture graph? **Guided Practice**: Complete a portion of "Guided Practice" as a whole group.	• Daily Review 15-4 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 15-4

		Suggested Center Activities: • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Pick a Project Activity pg 639. Students can choose an activity to build.	
Lesson 15-5 Draw Conclusions From Graphs (1 day)	SWBAT draw conclusions from graphs.	**Solve and Share**: Students use the data to make a picture graph and write sentences explaining two things I notice about the data in the graph. **Visual Learning**: Why are the picture graphs and bar graphs useful tools for drawing conclusions about data? **Convince Me**: Students find how many tickets Kim and Neil sell in all, and then they explain their work. Have students describe the steps they would take to read the	• Daily Review 15-5 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching • Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 15-5

		graph and find the number of tickets Kim and Neil sold in all. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math **Optional Activities**: • Climate Change Activity: Students will solve problems that have to do with a climate change related issue. See below. • Problem-Solving Leveled Reading Mats/ Activity 15-6	
Lesson 15-6 Problem Solving: Reasoning (1 day)	SWBAT reason about data in bar graphs and picture graphs to write and solve problems.	**Solve and Share**: Students fill in appropriate data on a picture graph, and then write and solve a problem about their data. **Visual Learning**:	• Daily Review 15-6 • Guided Practice • Independent Practice/ Problem Solving • Practice Buddy • Reteaching

		How can you use graphs to write and solve problems about data? **Convince Me**: Have students explain how they used the graph to write their own problems. Then have them discuss how they solved their problem. **Guided Practice**: Complete a portion of "Guided Practice" as a whole group. **Suggested Center Activities:** • Teacher led small group instruction with differentiated groupings to complete "Independent Practice" and "Problem Solving" • "Reteach to Build" • "Build Mathematical Literacy" • "Enrichment" **Technology**: Optional Activities: • My Math Academy • ST Math • enVision Math Game: Fluency- Add and Subtract within 100 found on PearsonRealize.com **Optional Activities**: • Pick a Project Activity pg 639. Students can choose an activity	• Build Mathematical Literacy • Enrichment • Additional Practice • Quick Check 15-6

		to build. • Problem-Solving Leveled Reading Mat/ Activity 15-6	
Topic 15 Review: Graphs and Data (1 day)	SWBAT review vocabulary words used in the topic. Review strategies in preparation for assessment.	Review: Students review vocabulary words used in the topic. Reteaching pages: Students will complete Reteaching pages with teacher support as needed. **Suggested center activities:** • Teacher led small group instruction with differentiated groupings • Additional "Guided Practice" • Independent Practice • Problem solving • Hands on manipulatives • Reteach to Build • Build Mathematical Literacy • Enrichment • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Reteaching pages
Topic 15 Assessment: Graphs and Data (1 day)	SWBAT complete Topic 15 Assessment independently.	Topic 15 Assessment: Students will independently complete Topic 15 Assessment. **Suggested center activities:** • My Math Academy **Technology Activities:** • St Math • My Math Academy • Brain Pop Jr. Math Category	Topic 15 Assessment

Climate Change Activity

2.DL.B.4 Students can create graphs to compare the temperature of a particular month from year to year to show differences due to climate change. They can also use the collected data to create and solve words problems to 100.

Standards

MATH.2.M.A.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
MATH.2.M.A.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
MATH.2.M.A.3	Estimate lengths using units of inches, feet, centimeters, and meters.
MATH.2.M.A.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
MATH.2.DL.A.1	Understand that people collect data to answer questions. Understand that data can vary.
MATH.2.DL.A.2	Identify what could count as data (e.g., visuals, sounds, numbers).
MATH.2.DL.B.3	Generate measurement data by measuring lengths of several objects to th nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
MATH.2.DL.B.4	Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph.

Suggested Modifications for Special Education, ELL and Gifted Students

Gifted Learners

- Provide options, alternatives and choices to differentiate and broaden the curriculum
- enVision Enrichment pintables
- Organize and offer flexible small group learning activities (Pick a Project- Envision)
- Use center, stations, or contract
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Special Education

- Alter assignment lengths if necessary.

- Allow additional time when in full class discussing for processing and discussion.
- Check for understanding by conferencing with the teacher during small group instruction
- Students may choose a partner or teacher may choose a partner to work that student is comfortable with.
- Repeat and clarify any directions given.
- Allow for preferential seating within groups and the whole class.
- Modify amount of vocabulary words used
- Read word problems and directions aloud
- Daily review of facts, skip counting songs, etc.
- Use of manipulatives and real world examples
- Daily lesson Visual Learning Bridge (enVision) and Model with Math
- enVision Intervention kit / reteaching

ELL

- Teach vocabulary (enVision- My Word Cards)- perimeter, equilateral triangle, centimeter, polygon, area, square units (use visuals/anchor charts)
- Use visuals/visual learning videos/"Another Look" videos and the Animated glossary
- "Listen and Look For" when beginning the topic
- enVision reteach/intervention kit

Suggested Technological Innovations/Use

- My Math Academy
- ST Math
- Kahoot!
- Tools (enVision 2020)
- Game Center (enVision 2020)
- Create/Complete a Discovery Education Board

Cross Curricular/21st Century Connections

- Pick a Project Activity
- enVision STEM Project
- Problem Solving Reading Activity
- 3 ACT MATH Activity