



# **Course of Study Unit Planning Guide For Second Grade Math**

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Aligned to the New Jersey Student Learning Standards for Mathematics

**B.O.E. Adopted: August 20, 2020**

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**PACING GUIDE**-Math should be taught daily for 75 minutes. This unit covers Topics 1 through 4, for a total of 52 days. This includes a day to complete: 3 ACT MATH (Topics 1&3) reteaching, performance task, practice assessment, and assessment.

Topic 1- 15 Days

Topic 2- 9 Days

Topic 3- 13 days

Topic 4- 15 days

In this unit of study, we are learning to:

- Use strategies to achieve fluency with addition and subtraction within 20
- Determining whether a number is even or odd, and on finding the total number of objects in situations involving equal groups of objects.
- Focus on addition within 100 using strategies that employ a hundred chart, an open number line, breaking numbers apart, and compensation.
- Develop computational fluency in addition within 100 by using models, understanding of place value, properties of operations, the partial-sums method, and mental math.

**This unit is based on Topics 1-4 and on the following NJSL Math Standards and Practices (by topic):**

**Topic 1: Fluently Add and Subtract Within 20**

Lesson 1-1: 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.2, MP.4, MP.8

Lesson 1-2: 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.4, MP.6, MP.7

Lesson 1-3: 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.1, MP.2, MP.7

Lesson 1-4:2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.2, MP.7, MP.8

Lesson 1-5:2.OA.B.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.1, MP.2, MP.4

Lesson 1-6: 2.OA.B.2Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.2, MP.7, MP.8

Lesson 1-7: 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.3, MP.4, MP.5

Lesson 1-8: 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.2, MP.4, MP.8

Lesson 1-9: 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.1, MP.2, MP.6

3-ACT MATH: Losing Marbles (Optional) The 3-ACT MATH on page 4 can be used anytime after Lesson 1-9. :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.,2.OA.B.2,Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.1, MP.2, MP.3, MP.5, MP.6, MP.7, MP.8

Lesson 1-10 :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.,2.OA.B.2,:Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.1, MP.2, MP.3, MP.4

## **Topic 2: Work with Equal Groups of Objects to Gain Foundations for Multiplication**

Lesson 2-1: 2.OA.C.3,: Determine whether a group of objects (up tp 20) has even or odd numbers 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. 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.4,MP.6,MP.7

Lesson 2-2: 2.OA.C.3,: Determine whether a group of objects (up to 20) has even or odd numbers 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. 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.4,MP.7,MP.8

Lesson 2-3: 2.OA.C.4,Use addition to find the total numbers 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. 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.1,MP.3,MP.7

Lesson 2-4: 2.OA.C.4,Use addition to find the total numbers 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. 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.2,MP.4,MP.5

Lesson 2-5: 2.OA.C.4,Use addition to find the total numbers 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. 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. 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. MP.4,MP.1,MP.3,MP.6, MP.7, MP.8

### **Topic 3: Add Within 100 Using Strategies**

Lesson 3-1: 2.NBT.B.5,Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.3,MP.5

Lesson 3-2: 2.NBT.B.5,Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.2,MP.5

Lesson 3-3: 2.NBT.B.5,Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.4,MP.7

Lesson 3-4: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. MP.2, MP.3, MP.8

Lesson 3-5: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.2, MP.4

3-ACT MATH: Piled Up (Optional) The 3-ACT MATH on page 4 can be used anytime after Lesson 3-5. :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. 2.OA.C.4, Use addition to find the total numbers 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. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.2, MP.3, MP.5, MP.6, MP.7, MP.8

Lesson 3-6: 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. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.6

Lesson 3-7: 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. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.3, MP.5

#### **Topic 4: Fluently Add Within 100**

Lesson 4-1: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.3, MP.4, MP.5

Lesson 4-2: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. 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. MP. 1, MP.3, MP.4

Lesson 4-3: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. 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. MP.4, MP.7

Lesson 4-4: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.2, MP.3

Lesson 4-5: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.2, MP.7, MP.8

Lesson 4-6: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. 2.NBT.B.6, Add up to four two-digit numbers using strategies based on place value and properties of operations. MP.2, MP.3, MP.8

Lesson 4-7: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. 2.NBT.B.6, Add up to four two-digit numbers using strategies based on place value and properties of operations. MP.4, MP.7

Lesson 4-8: 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. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.6, Add up to four two-digit numbers using strategies based on place value and properties of operations. MP.1, MP.4, MP.8

Lesson 4-9: 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. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.6, Add up to four two-digit numbers using strategies based on place value and properties of operations. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.3, MP.4

**\*Additional ELA Companion and Interdisciplinary Standards:**

NJSLSA.R8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

RI.2.7. Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

**Next Generation Science Standards: enVision STEM Project (Optional)**

Topic 1: 2-PS1-1, 2-PS1-2

Topic 2: 2-LS4-1

Topic 3: 2-ESS1-1

Topic 4: 2-ESS1-1

## Unit 1: Student Learning Objectives (by Topic)

### We are learning to (WALT):

#### Topic 1:

Lesson 1-1: Use counting on to add numbers in any order.

Lesson 1-2: Use doubles and near doubles to add quickly and accurately.

Lesson 1-3: Use the strategy of making a ten to add quickly and accurately.

Lesson 1-4: Use number patterns on an addition facts table to complete addition equations.

Lesson 1-5: Count on and count back on a number line to subtract.

Lesson 1-6: Think addition to subtract quickly and accurately.

Lesson 1-7: Make a 10 to subtract quickly and accurately.

Lesson 1-8: Add and subtract quickly and accurately using mental math strategies.

Lesson 1-9: Use addition and subtraction to solve word problems.

Lesson 1-10: Use words, pictures, numbers, and symbols to construct viable math arguments.

#### Topic 2:

Lesson 2-1: Tell if a group of objects is even or odd.

Lesson 2-2: Use different ways to tell if a group of objects shows an even or odd number.

Lesson 2-3: Find the total number of objects in a set of rows and columns.

Lesson 2-4: Make arrays with equal rows or equal columns to solve addition problems.

Lesson 2-5: Model problems using equations, drawings, and arrays.

**Topic 3:**

Lesson 3-1: Add within 100 using place value strategies and a hundred chart.

Lesson 3-2: Use an open number line to add tens and ones within 100.

Lesson 3-3: Break apart numbers into tens and ones to find their sum.

Lesson 3-4: Break apart addends and combine them in different ways to make numbers that are easy to add mentally.

Lesson 3-5: Choose and use any strategy to add two-digit numbers.

Lesson 3-6: Use drawings and equations to solve one-step and two-step problems.

Lesson 3-7: Use words, pictures, numbers, and symbols to construct viable math arguments.

**Topic 4:**

Lesson 4-1: Use models to add 2-digit numbers and then explain the work.

Lesson 4-2: Add 2-digit numbers with models.

Lesson 4-3: Add using place value and partial sums.

Lesson 4-4: Add using mental math, place value, and partial sums.

Lesson 4-5: Add using place value strategies and mental math.

Lesson 4-6: Add three or four 2-digit numbers.

Lesson 4-7: Practice using strategies to add more than two numbers.

Lesson 4-8: Use drawings, models, and equations to solve one-and two-step problems.

Lesson 4-9: Make models to help solve math problems.

### **Unit 1: Career Readiness, Life Literacies, & Key Skills (CLKS) Standards**

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

### **Unit 1: Technology Standards**

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.E.1: Use digital tools and online resources to explore a problem or issue.

8.2.2.B.1 Identify how technology impacts or improves life.

8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.C.1: Collaborate with peers by participating in interactive digital games or activities.

## Unit 1: Social Emotional Competencies

### Self-Awareness:

- Recognize one’s personal traits, strengths, and limitations
- Recognize the importance of self-confidence in handling daily tasks and challenges

### Social Awareness

- Demonstrate an understanding of the need for mutual respect when viewpoints differ
- Demonstrate an awareness of the expectations for social interactions in a variety of settings.

### Responsible Decision-Making:

- Develop, implement, and model effective problem-solving and critical thinking skills

## Unit 1: Sequence

| Activities/Concepts  | Formative & Summative Assessments  |
|--|--|
| <p><b>Topic 1: Fluently Add and Subtract Within 20</b></p> <p>1-1: Addition Fact Strategies</p> <p>1-2: Doubles and Near Doubles</p> | <ul style="list-style-type: none"> <li>● Vocabulary Review</li> <li>● Topic Assessment Practice (Summative)</li> <li>● Topic Assessment (Summative)</li> <li>● Topic Performance Task (Summative)</li> <li>● Basic-Facts Timed Tests (Optional)</li> </ul> |

1-3: Make a 10 to Add  
1-4: Addition Fact Patterns  
1-5: Count On and Count Back to Subtract  
1-6: Think Addition to Subtract  
1-7: Make a 10 to Subtract  
1-8: Practice Addition and Subtraction Facts  
1-9: Solve Addition and Subtraction Word Problems  
1-10: Problem Solving: Construct Arguments  
3-ACT MATH: Losing Marbles

**Topic 2: Work with Equal Groups**

2-1: Even and Odd Numbers  
2-2: Continue Even and Odd Numbers  
2-3: Use Arrays to Find Totals  
2-4: Make Arrays to Find Totals  
2-5: Problem Solving: Model with Math

**Topic 3: Add Within 100 Using Strategies**

3-1: Add Tens and Ones on a Hundred Chart  
3-2: Add Tens and Ones on an Open Number Line  
3-3: Break Apart Numbers to Add  
3-4: Add Using Compensation  
3-5: Practice Adding Using Strategies  
3-6: Solve One-Step and Two-Step Problems

- Interactive Tutor Buddy (Optional)(Digital)
- Student Workbook
- Administer Online Tests (Optional)
- Complete Quick Check (Progress Monitoring) (Checked problems in student workbook)
- Reteaching Sheets (Optional)
- Cumulative/Benchmark Assessment (After Topic 4)
- Fluency Practice Activities (Optional)
- Homework Workbook
- Math Anytime (Daily Review)
- Today's Challenge

3-7: Problem Solving: Construct Arguments

3-ACT MATH: Piled Up

**Topic 4: Fluently Add Within 100**

4-1: Add 2-Digit Numbers Using Models

4-2: Continue to Add 2-Digit Numbers Using Models

4-3: Add with Partial Sums

4-4: Add Using Mental Math and Partial Sums

4-5: Break Apart Numbers and Add Using Mental Math

4-6: Add More Than Two 2-Digit Numbers

4-7: Practice Adding Using Strategies

4-8: Solve One-Step and Two-Step Problems

4-9: Problem Solving: Model with Math

**Essential Questions:**

**Topic 1**

Lesson 1-1: If you add two numbers in a different order, will you get the same sum?

Lesson 1-2: How can you use a doubles fact to find a near doubles fact? Explain.

Lesson 1-3: Why is making a 10 a good strategy to help you add quickly and accurately?

Lesson 1-4: How can addition patterns help you find an additional fact that you don't remember? Give an example.

Lesson 1-5: What are two ways that you can use a number line to subtract?

Lesson 1-6: How are addition and subtraction related? Give an example.

Lesson 1-7: Why is making a 10 a good strategy to help you subtract quickly and accurately?

Lesson 1-8: How do you decide which strategy to use to add and subtract quickly and accurately?

Lesson 1-9: Why is writing an equation useful for solving a word problem?

Lesson 1-10: What are some ways to describe a good math argument?

## **Topic 2**

Lesson 2-1: How can you tell if the number of cubes in a tower of cubes is even or odd?

Lesson 2-2: How can you tell if a group of objects is even or odd?

Lesson 2-3: What are two ways you can use addition to find the total number of objects in an array?

Lesson 2-4: How can you write an equation, using repeated addition, to find the total number of objects in an array?

Lesson 2-5: When you need to solve a word problem, why do you draw a picture and write an equation?

## **Topic 3**

Lesson 3-1: How can you use patterns on a hundred chart to help you add numbers mentally?

Lesson 3-2: How can you use an open number to help you add two 2-digit numbers?

Lesson 3-3: How can you break apart the second addend to find the sum of two 2-digit numbers?

Lesson 3-4: How can you use the compensation strategy to find the sum of two 2-digit numbers?

Lesson 3-5: What strategies can you use to add two 2-digit numbers?

Lesson 3-6: What are some things you can do to help you keep track of steps in a problem?

Lesson 3-7: What are some ways to describe a good math argument?

#### **Topic 4**

Lesson 4-1: How can you use regrouping to add two 2-digit numbers?

Lesson 4-2: How can you use place-value drawings and breaking addends into tens and ones to solve addition problems?

Lesson 4-3: How can you use partial sums to add two-digit numbers?

Lesson 4-4: How can you use mental math and partial sums to add two-digit numbers?

Lesson 4-5: How can you break apart one addend and add mentally to find the sum of two 2-digit numbers?

Lesson 4-6: How can you add more than two 2-digit numbers?

Lesson 4-7: How can you add two or more 2-digit numbers in different ways?

Lesson 4-8: What are some things you can do to help you solve one- and two step word problems?

Lesson 4-9: What are some ways to show (model) and solve word problems?

## Unit 1: What It Looks Like in the Classroom

### Topic 1

Student Workbook Pages 5-44

Fluency Practice Activity: Page 45

Vocabulary Review: Page 46

Reteaching: Pages 47-50

Topic 1 Assessment Practice: Pages 51-54

Focus Vocabulary: equation, doubles, bar diagram, addend, near doubles, sum, difference

### Topic 2

Student Workbook Pages 61-80

Fluency Practice Activity: Page 81

Vocabulary Review: Page 82

Reteaching: Pages 83-84

Topic 2 Assessment Practice: Pages 85-86

Focus Vocabulary: even, odd, array, row, column

### Topic 3

Student Workbook Pages 93-120

Fluency Practice Activity: Page 121

Vocabulary Review: Page 122

Reteaching: Pages 123-126

Topic 3 Assessment Practice: Pages 127-130

Focus Vocabulary: tens, ones, open number lines, break apart, compensation

#### **Topic 4**

Student Workbook Pages 137-172

Fluency Practice Activity: Page 173

Vocabulary Review: Page 174

Reteaching: Pages 175-178

Topic 4 Assessment Practice: Pages 179-182

Focus Vocabulary: regroup, partial sums, mental math, compatible numbers

#### **Instructional Plan:**

Introduction of Topic:

- Interactive Math Story (Digital & Teacher's Resource Masters)
- Topic Opener
- Review Topic Vocabulary

Daily:

- Daily Review (Math Anytime)
- Today's Challenge (Optional) (Can be used anytime during topic)
- Solve & Share Activity: Analyze Student Work (Formative Assessment)
- Visual Learning Bridge: Introduce Essential Question (Digital)
- Convince Me! (Formative Assessment)
- Guided Practice (Formative Assessment)
- Independent Practice
- Problem Solving
- Quick Check (Complete Checked Problems) (Formative Assessment)
- Optional: Interactive Tutor Buddy (Digital)

- Optional Use: Reteach to Build Understanding, Build Mathematical Literacy, Enrichment (Teacher's Resource Masters)
- Homework: Additional Practice Workbook

End of Topic:

- Fluency Practice Activity
- Vocabulary Review
- Reteaching
- Assessment Practice
- Topic Assessment
- Topic Performance Task
- Cumulative/Benchmark Assessment (After Topic 4)

Topics 1&3: 3 ACT-MATH

### **Unit 1: Resources**

Envisions Mathematics 2020 Student Handbook

Envisions Student Additional Practice Workbook

Envisions Teacher's Resource Masters Volume 1 Topics 1-8

Digital Resources: Pearson Website, [ixl.com](http://ixl.com)

## Unit 1: Modifications

*At Risk Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*Students with Disabilities/504:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*ELL Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard, Daily review, For Spanish speakers use the Spanish resource materials to support understanding, complete additional Vocabulary Activities

*Gifted & Talented/Enrichment:* Use of Enrichment worksheets, Pick a Project, envision Stem Activity, assign IXL at level/or higher level

**PACING GUIDE**-Math should be taught daily for 75 minutes. This unit covers Topics 5 through 8, for a total of 49 days. This includes a day to complete: 3 ACT MATH (Topics 5&7) review, performance task, practice assessment, and assessment.

Topic 5: 13 Days

Topic 6: 11 Days

Topic 7: 13 Days

Topic 8: 12 Days

In this unit of study:

- Subtraction within 100 using strategies that employ a hundred chart, an open number line, breaking numbers apart, and compensation.
- Develop computational fluency in subtraction within 100 by using understanding of place value, properties of operations, mental math, and the partial-differences strategy.
- Representing and solving one-and two-step word problems involving addition and subtraction situations.
- Identifying and counting coins and bills, solving word problems about money, telling time to the nearest 5 minutes using a.m. and p.m., and telling time before and after the hour.

**This unit is based on Topics 5-8 and on the following NJSL Math Standards & Practices (by Topic):**

### **Topic 5: Subtract Within 100 Using Strategies**

Lesson 5-1: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.3, MP.5, MP.7

Lesson 5-2: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.4, MP.5

Lesson 5-3: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.2, MP.6

Lesson 5-4: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.3, MP.6, MP.7

Lesson 5-5: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.4, MP.8

Lesson 5-6: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.2, MP.4, MP.5

Lesson 5-7: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.1, MP.2, MP.4

Lesson 5-8: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.3, MP.1, MP.7, MP.4

3-ACT MATH: Laundry Day (Optional) The 3-ACT MATH can be used anytime after Lesson 5-5. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.4, MP.1, MP.2, MP.3, MP.5, MP.6, MP.7, MP.8

## **Topic 6: Fluently Subtract Within 100**

Lesson 6-1: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.3, MP.5

Lesson 6-2: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.4, MP.7, MP.8

Lesson 6-3: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. 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. MP.2, MP.4, MP.5

Lesson 6-4: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.2, MP.3

Lesson 6-5: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.2, MP.6

Lesson 6-6: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.1, MP.2, MP.4

Lesson 6-7: 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. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.2, MP.1, MP.4, MP.5, MP.6

## **Topic 7: More Solving Problems Involving Addition and Subtraction**

Lesson 7-1: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.2, MP.4, MP.8

Lesson 7-2: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.1, MP.2, MP.4

Lesson 7-3: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.1, MP.2, MP.4

Lesson 7-4: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.1, MP.2, MP.4

Lesson 7-5: 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 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. MP.1, MP.3, MP.4

Lesson 7-6: 2.NBT.B, Use place value understanding and properties of operations to add and subtract. 2.OA.B.2, Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. MP.2, MP.3, MP.6,

Lesson 7-7: 2.NBT.B, Use place value understanding and properties of operations to add and subtract. MP.2, MP.3, MP.5

Lesson 7-8: 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. 2.NBT.B.9, Explain why addition and subtraction strategies work, using place value and the properties of operation. MP.1, MP.2, MP.3, MP.4, MP.7

3-ACT MATH: Use this 3-ACT MATH task any time after lesson 7-5. 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. 2.NBT.B.5, Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. MP.4, MP.1, MP.2, MP.3, MP.5, MP.6, MP.7, MP.8

### **Topic 8: Work with Time and Money**

Lesson 8-1: 2.MD.C.8, Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and cents symbols appropriately. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. MP.1, MP.2, MP.3

Lesson 8-2: 2.MD.C.8, Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and cents symbols appropriately. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. MP.3, MP.4, MP.6

Lesson 8-3: 2.MD.C.8, Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and cents symbols appropriately. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. MP.2, MP.4, MP.7

Lesson 8-4: 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. 2.MD.C.8, Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and cents symbols appropriately. MP.1, MP.3, MP.6

Lesson 8-5: 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. 2.MD.C.8, Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using \$ and cents symbols appropriately. MP.2, MP.1, MP.3, MP.4, MP.8

Lesson 8-6: 2.MD.C.7, Tell and write from analog clocks to the nearest 5 minutes, using a.m. and p.m. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. MP.2, MP.5, MP.6

Lesson 8-7: 2.MD.C.7, Tell and write from analog clocks to the nearest 5 minutes, using a.m. and p.m. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. MP.4, MP.6, MP.8

Lesson 8-8: 2.MD.C.7, Tell and write from analog clocks to the nearest 5 minutes, using a.m. and p.m. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. MP.2, MP.6, MP.8

**\*Mathematical Practices By Standard:**

**MP Standard 1:** Make Sense of Problems and Persevere in Solving Them **MP Standard 2:** Reason Abstractly and Quantitatively **MP Standard 3:** Construct Viable Arguments and Critique the Reasoning of Others **MP Standard 4:** Model with Mathematics **MP Standard 5:** Use Appropriate Tools Strategically **MP Standard 6:** Attend to Precision **MP Standard 7:** Look for and Make Use of Structure **MP Standard 8:** Look for and Express Regularity in Repeated Reasoning

**\*Additional ELA Companion and Interdisciplinary Standards:**

NJSLSA.R8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

RI.2.7. Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

**Next Generation Science Standards: enVision STEM Project (Optional)**

Topic 5: 2-PS1-4

Topic 6: 2-ESS2-3

Topic 7: 2-ESS2-1, K-2-ETS1-1

Topic 8: 2-PS1-1

**Unit 2: Student Learning Objectives (by Topic)**

**We are learning to (WALT):**

**Topic 5 :**

Lesson 5-1: Use a hundred chart to subtract tens and ones.

Lesson 5-2: Use an open number line to subtract tens and ones.

Lesson 5-3: Add up to subtract using an open number line.

Lesson 5-4: Break apart 1-digit numbers to make it easier to subtract mentally.

Lesson 5-5: Make numbers that are easier to subtract, and use mental math to find the difference.

Lesson 5-6: Choose and use any strategy to subtract 2-digit numbers.

Lesson 5-7: Solve one-and two-step problems using addition or subtraction.

Lesson 5-8: Critique the thinking of others by using what is known about addition and subtraction.

### **Topic 6:**

Lesson 6-1: Use place value and models to subtract one-digit numbers.

Lesson 6-2: Use place value and models to subtract two-digit numbers.

Lesson 6-3: Subtract using place value and partial differences.

Lesson 6-4: Break apart two-digit numbers to make it easier to subtract.

Lesson 6-5: Subtract two-digit numbers using a variety of subtraction strategies.

Lesson 6-6: Use models and equations to solve word problems.

Lesson 6-7: Reason about word problems and use bar diagrams and equations to solve them.

### **Topic 7:**

Lesson 7-1: Model problems using equations with unknowns in any position.

Lesson 7-2: Use drawings and equations to make sense of the words in problems.

Lesson 7-3: Use drawings and equations to make sense of the words in problems.

Lesson 7-4: Model and solve two-step problems using equations.

Lesson 7-5: Use different ways to solve two-step problems.

Lesson 7-6: Find unknown numbers in equations that relate four whole numbers.

Lesson 7-7: Find unknown numbers in equations that relate four or more whole numbers.

Lesson 7-8: Use reasoning to write and solve number stories.

**Topic 8:**

Lesson 8-1: Solve problems with coins.

Lesson 8-2: Solve problems with coins.

Lesson 8-3: Solve problems with dollar bills and coins that model 100 cents.

Lesson 8-4: Solve more problems with dollar bills.

Lesson 8-5: Reason about values of coins, and find different ways to make the same total value.

Lesson 8-6: Tell and write to the nearest five minutes.

Lesson 8-7: Say the time in different ways.

Lesson 8-8: Tell time and use reasoning to state if the event is happening in the a.m. or the p.m.

**Unit 2: Career Readiness, Life Literacies, & Key Skills (CLKS) Standards**

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

## Unit 2: Technology Standards

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.E.1: Use digital tools and online resources to explore a problem or issue.

8.2.2.B.1 Identify how technology impacts or improves life.

8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.C.1: Collaborate with peers by participating in interactive digital games or activities.

## Unit 2: Social Emotional Competencies

### Self-Awareness:

- Recognize one's personal traits, strengths, and limitations
- Recognize the importance of self-confidence in handling daily tasks and challenges

### Social Awareness

- Demonstrate an understanding of the need for mutual respect when viewpoints differ
- Demonstrate an awareness of the expectations for social interactions in a variety of settings.

### Responsible Decision-Making:

- Develop, implement, and model effective problem-solving and critical thinking skills
- Evaluate personal, ethical, safety, and civic impact of decisions

| Unit 2: Sequence   |   |
|--|---|
| Activities/Concepts  | Formative & Summative Assessments   |
| <p><b>Topic 5: Subtract Within 100 Using Strategies</b></p> <p>Lesson 5-1: Subtract Tens and Ones on a Hundred Chart</p> <p>Lesson 5-2: Count Back to Subtract on an Open Number Line</p> <p>Lesson 5-3: Add Up to Subtract Using an Open Number Line</p> <p>Lesson 5-4: Break Apart Numbers to Subtract</p> <p>Lesson 5-5: Subtract Using Compensation</p> <p>Lesson 5-6: Practice Subtracting Using Strategies</p> <p>Lesson 5-7: Solve One-Step and Two-Step Problems</p> <p>Lesson 5-8: Problem Solving: Critique Reasoning</p> <p>3 ACT MATH: Laundry Day</p> <p><b>Topic 6: Fluently Subtract Within 100</b></p> <p>Lesson 6-1: Subtract 1-Digit Numbers Using Models</p> <p>Lesson 6-2: Subtract 2-Digit Numbers Using Models</p> <p>Lesson 6-3: Subtract Using Partial Differences</p> <p>Lesson 6-4: Continue to Subtract Using Partial Differences</p> <p>Lesson 6-5: Practice Subtracting</p> <p>Lesson 6-6: Solve One-Step and Two Step Problems</p> <p>Lesson 6-7: Problem Solving: Reasoning</p> | <ul style="list-style-type: none"> <li>● Vocabulary Review</li> <li>● Topic Assessment Practice</li> <li>● Topic Assessment</li> <li>● Topic Performance Task</li> <li>● Basic-Facts Timed Tests (Optional)</li> <li>● Interactive Tutor Buddy (Optional)(Digital)</li> <li>● Assess Student Workbook</li> <li>● Administer Online Tests (Optional)</li> <li>● Complete Quick Check (Checked problems in student workbook)</li> <li>● Reteaching Sheets (Optional)</li> <li>● Cumulative/Benchmark Assessment (Topic 1-8)</li> <li>● Fluency Practice Activities (Optional)</li> <li>● Homework Workbook</li> <li>● Math Anytime (Daily Review)</li> <li>● Today's Challenge</li> </ul> |

**Topic 7: More Solving Problems Involving Addition and Subtraction**

Lesson 7-1: Represent Addition and Subtraction Problems

Lesson 7-2: Mixed Practice: Solve Addition and Subtraction Problems

Lesson 7-3: Continue Practice with Addition and Subtraction Problems

Lesson 7-4: Solve Two-Step Problems

Lesson 7-5: Continue to Solve Two-Step Problems

Lesson 7-6: Make True Equations

Lesson 7-7: Continue to Make True Equations

Lesson 7-8: Problem Solving: Reasoning

3 ACT MATH: The Water Jug

**Lesson 8: Work with Time and Money**

Lesson 8-1: Solve Problems with Coins

Lesson 8-2: Continue to Solve Problems with Coins

Lesson 8-3: Solve Problems with Dollar Bills

Lesson 8-4: Continue to Solve Problems with Dollar Bills

Lesson 8-5: Problem Solving: Reasoning

Lesson 8-6: Tell and Write Time to Five Minutes

Lesson 8-7: Tell Time Before and After the Hour

Lesson 8-8: A.M. and P.M.

**Essential Questions:****Topic 5**

Lesson 5-1: How can patterns on a hundred chart help you subtract numbers mentally?

Lesson 5-2: How can you use an open number line to subtract tens and ones?

Lesson 5-3: How can you use an open number line to add up to subtract?

Lesson 5-4: Why is it a good idea to break apart the number you are subtracting into two numbers?

Lesson 5-5: What is compensation and how can you use it to help you subtract?

Lesson 5-6: What strategies can you use to subtract two 2-digit numbers?

Lesson 5-7: How can you go about solving one-and two step word problems?

Lesson 5-8: What are some things you can do to critique the thinking of others?

**Topic 6**

Lesson 6-1: Why do you sometimes need to regroup when you subtract?

Lesson 6-2: How is subtracting a 2-digit number from a 2-digit number like subtracting a 1-digit number from a 2-digit number?

Lesson 6-3: How can you use partial differences to subtract two-digit numbers?

Lesson 6-4: How could you break apart a two-digit number that you are subtracting in order to make it easier to subtract? Explain.

Lesson 6-5: What are some strategies you could use to solve a subtraction problem?

Lesson 6-6: Why is it helpful to complete a bar diagram and write an equation to solve word problems?

Lesson 6-7: How can you use a bar diagram and an equation to show how the numbers in a word problem are related?

## **Topic 7**

Lesson 7-1: How can you write an equation to show and solve a word problem?

Lesson 7-2: What are some things you can do to help you solve word problems?

Lesson 7-3: How can you use a bar diagram to help you solve a word problem?

Lesson 7-4: How do you decide if you need to solve a problem in two steps?

Lesson 7-5: How can you figure out if there is a hidden question that you need to answer first in order to solve a word problem?

Lesson 7-6: How can you find the missing number in an equation that relates two numbers on each side?

Lesson 7-7: How can you find the missing number in an equation that relates up to three numbers on each side?

Lesson 7-8: How can you use an equation to write a number story?

## **Topic 8**

Lesson 8-1: How can you find the total value of a group of coins?

Lesson 8-2: What are some strategies you can use to help you solve word problems about money?

Lesson 8-3: How can you find the total value of a group of dollar bills?

Lesson 8-4: What are some strategies you can use to help you solve word problems about money?

Lesson 8-5: How can you find all the different ways to make a total amount of money?

Lesson 8-6: How can you use clocks to tell time?

Lesson 8-7: What are some different ways to say the time of the day?

Lesson 8-8: When do you use a.m. and when do you use p.m. to describe the time of day?

## Unit 2: What It Looks Like in the Classroom

### Topic 5

Student Workbook Pages 186-220

Fluency Practice Activity: Page 221

Vocabulary Review: Page 222

Reteaching: Pages 223-226

Topic 5: Assessment Practice: Pages 227-230

### Topic 6

Student Workbook Pages 234-264

Fluency Practice Activity: 265

Vocabulary Review: Page 266

Reteaching: Pages 267-270

Topic 6: Assessment Practice: Pages 271-274

Focus Vocabulary: Partial differences

### **Topic 7**

Student Workbook Pages 278-312

Fluency Practice Activity: Page 313

Vocabulary Review: Page 314

Reteaching: Pages 315-318

Topic 7: Assessment Practice: Pages 319-322

### **Topic 8**

Student Workbook Pages 326-360

Fluency Practice Activity: 361

Vocabulary Review: Page 362

Reteaching: Pages 363-366

Topic 8: Assessment Practice: Pages 367-370

Focus Vocabulary: dime, half-dollar, quarter past, p.m., nickel, cents, dollar sign, half past, penny, greatest value, dollar bills, quarter to, quarter, least value, tally marks, a.m.

#### **Instructional Plan:**

Introduction of Topic:

- Interactive Math Story (Digital & Teacher's Resource Masters)
- Topic Opener
- Review Topic Vocabulary

Daily:

- Daily Review (Math Anytime)
- Today's Challenge (Optional) (Can be used anytime in topic)
- Solve & Share Activity: Analyze Student Work (Formative Assessment)
- Visual Learning Bridge: Introduce Essential Question (Digital)
- Convince Me! (Formative Assessment)
- Guided Practice (Formative Assessment)
- Independent Practice
- Problem Solving
- Quick Check (Complete Checked Problems) (Formative Assessment)
- Optional: Interactive Tutor Buddy (Digital)
- Optional Use: Reteach to Build Understanding, Build Mathematical Literacy, Enrichment (Teacher's Resource Masters)
- Homework: Additional Practice Workbook

End of Topic:

- Fluency Practice Activity
- Vocabulary Review
- Reteaching
- Assessment Practice
- Topic Assessment
- Topic Performance Task
- Cumulative/Benchmark Assessment Topics 1-8

Topics 5 & 7: : 3 ACT-MATH

**Unit 2: Resources**

Envisions Mathematics 2020 Student Handbook

Envisions Student Additional Practice Workbook

Envisions Teacher's Resource Masters Volume 1 Topics 1-8

Digital Resources: Pearson Website, ixl.com

## Unit 2: Modifications

*At Risk Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*Students with Disabilities/504:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*ELL Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard, Daily review, For Spanish speakers use the Spanish resource materials to support understanding, complete additional Vocabulary Activities

*Gifted & Talented/Enrichment:* Use of Enrichment worksheets, Pick a Project, envision Stem Activity, assign IXL at level/or higher level

**PACING GUIDE**-Math should be taught daily for 75 minutes. This unit covers Topics 9 through 12, for a total of 44 days. This includes a day to complete: 3 ACT MATH, (Topics 9 and 11) review, performance task, practice assessment, and assessment.

Topic 9: 15 Days

Topic 10: 11 Days

Topic 11: 11 Days

Topic 12: 13 Days

In this unit of study, we are learning to:

- Understanding of place value is extended to 1,000 and serves as a foundation for adding and subtracting within 1,000
- Expanding students' understanding of addition to 3-digit numbers using models and strategies and addition strategies work using place value and properties of operation.
- Expanding students' understanding of subtraction within 1,000 using models and strategies, with subtraction strategies work using place value and properties of operation.
- Using appropriate tools to estimate, measure, and compare length using customary units (inches, feet, and yards) and metric units (centimeters and meters) and addresses the inverse relationship between the size of a unit and the number of units needed to a given object.

**This unit is based on Topics 9-12 and on the following NJSL Math Standards: & Practices (by Topic):**

**Topic 9: Numbers to 1,000**

Lesson 9-1: 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. MP.5, MP.7

Lesson 9-2: 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. 2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. MP.1, MP.4, MP.5

Lesson 9-3: 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. 2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. MP.4, MP.5, MP.8

Lesson 9-4: 2.NBT.A.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form., 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. , MP.4, MP.6, MP.7

Lesson 9-5: 2.NBT.A.3, Read and write numbers to 1000 using base-ten numerals, number names, and expanded form., 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. MP.2, MP.3, MP.6

Lesson 9-6: 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s., 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. MP.7, MP.8

Lesson 9-7: 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s., 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. MP.2, MP.7, MP.8

Lesson 9-8: 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., 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, MP.2, MP.3, MP.8

Lesson 9-9: 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., 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., MP.2, MP.7, MP.8

Lesson 9-10: 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s., 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., 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., MP.7, MP.1, MP.2, MP.3

3-ACT MATH: Makes Cents (Optional) The 3-ACT MATH can be used anytime after Lesson 9-8. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. 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. , 2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form., 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., 2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.

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

Lesson 10-1: 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. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. 2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have? MP.3, MP.4, MP.7

Lesson 10-2: 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. 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.2, MP.4, MP.5

Lesson 10-3: 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. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.2, MP.3, MP.5

Lesson 10-4: 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. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.3, MP.4, MP.6

Lesson 10-5: 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. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.3, MP.7

Lesson 10-6: 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. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.2, MP.3, MP.4

Lesson 10-7: 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. 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.8, MP.1, MP.2, MP.4

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

#### **Pacing: 13 Days**

Lesson 11-1: 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., 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations., MP.3, MP.4, MP.7

Lesson 11-2: 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., 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s., 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.2, MP.4, MP.6

Lesson 11-3: 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., 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.1, MP.4, MP.5

Lesson 11-4: 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., 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the

properties of operations. 2.MD.C.8 . Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?, MP.2, MP.3, MP.4

Lesson 11-5: 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., 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.2, MP.3, MP.4

Lesson 11-6: 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., 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. MP.1, MP.2, MP.3, MP.8

3-ACT MATH: The Chemistry Set. Use this 3-ACT MATH task any time after lesson 11-5. 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., MP.1, MP.2, MP.3, MP.5, MP.6, MP.7, MP.8

## **Topic 12: Measuring Length**

Lesson 12-1: 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters., MP.2, MP.6

Lesson 12-2: 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes., 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters MP.1, MP.3, MP.5

Lesson 12-3: 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters., 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes., 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters MP.2, MP.5, MP.8

Lesson 12-4: 2.MD.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., 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes., MP.3, MP.5, MP.6

Lesson 12-5: 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters. MP.3, MP.6, MP.7

Lesson 12-6: 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters. MP.3, MP.5, MP.6

Lesson 12-7: 2.MD.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., 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. MP.2, MP.3, MP.6

Lesson 12-8: 2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard-length unit., 2.MD.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. MP.2, MP.3, MP.4

Lesson 12-9: 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes, 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters., 2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard-length unit. MP.6, MP.1, MP.3, MP.5

**\*Mathematical Practices By Standard:**

**MP Standard 1:** Make Sense of Problems and Persevere in Solving Them **MP Standard 2:** Reason Abstractly and Quantitatively **MP Standard 3:** Construct Viable Arguments and Critique the Reasoning of Others **MP Standard 4:** Model with Mathematics **MP Standard 5:** Use Appropriate Tools Strategically **MP Standard 6:** Attend to Precision **MP Standard 7:** Look for and Make Use of Structure **MP Standard 8:** Look for and Express Regularity in Repeated Reasoning

**\*Additional ELA Companion and Interdisciplinary Standards:**

NJSLSA.R8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

RI.2.7. Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

**Next Generation Science Standards: enVision STEM Project (Optional)**

Topic 9: 2-PS1-3

Topic 10: K-2-ETS1-2

Topic 11: 2-LS2-2

Topic 12: 2-LS2-1

**Unit 3: Student Learning Objectives (by Topic)**

**We are learning to (WALT):**

**Topic 9 :**

Lesson 9-1: Understand place value and count by hundreds to 1,000.

Lesson 9-2: Use place-value blocks and drawings to model and write 3-digit numbers.

Lesson 9-3: Tell the value of a digit by where it is placed in a number.

Lesson 9-4: Read and write 3-digit numbers in expanded form, standard form, and word form.

Lesson 9-5: Make and name a number in different ways to show the same value.

Lesson 9-6: Use place-value patterns to mentally count by 1s and 10s from a given number.

Lesson 9-7: Skip count by 5s, 10s, 100s using a number line.

Lesson 9-8: Compare numbers using place value.

Lesson 9-9: Compare and write a 3-digit number that is greater than or less than another 3-digit number.

Lesson 9-10: Look for patterns to help when solving problems.

**Topic 10:**

Lesson 10-1: Add 10 and 100 mentally using place value.

Lesson 10-2: Use an open number line to add 3-digit numbers.

Lesson 10-3: Add 3-digit numbers using models.

Lesson 10-4: Use models and place value to add 3-digit numbers.

Lesson 10-5: Add 3-digit numbers using place value and partial sums.

Lesson 10-6: Use different addition strategies and explain why they work.

Lesson 10-7: Identify calculations or steps that repeat when solving problems.

### **Topic 11:**

Lesson 11-1: Subtract 10 or 100 mentally using place value blocks.

Lesson 11-2: Use an open number line to subtract 3-digit numbers.

Lesson 11-3: Use models to subtract 3-digit numbers.

Lesson 11-4: Use models and place value to subtract.

Lesson 11-5: Explain why subtraction strategies work using models, place value, and mental math.

Lesson 11-6: Solve problems that take more than one step.

### **Topic 12:**

Lesson 12-1: Estimate the length of an object by relating the length of an object to a known measurement.

Lesson 12-2: Estimate measures and use a ruler to measure length and height to the nearest inch.

Lesson 12-3: Estimate measures and use tools to measure the length and height of objects to the nearest inch, foot, and yard.

Lesson 12-4: Estimate and measure length and height of objects in inches, feet, and yards

Lesson 12-5: Estimate measures and use a ruler to measure length and height to the nearest centimeter.

Lesson 12-6: Estimate measures and use a ruler, meter stick, or tape measure to measure length and height to the nearest centimeter or meter.

Lesson 12-7: Measure the length and height of objects using different metric units.

Lesson 12-8: Tell how much longer one object is than another.

Lesson 12-9: Choose tools, units, and methods that help be precise when measuring.

### Unit 3: Career Readiness, Life Literacies, & Key Skills (CLKS) Standards

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

9.1.2.FP.1: Explain how emotions influence whether a person spends or saves.

9.1.2.FP.2: Differentiate between financial wants and needs.

9.1.2.FP.3: Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).

9.1.2.PB.2: Explain why an individual would choose to save money.

9.1.2.PB.1: Determine various ways to save and places in the local community that help people save and accumulate money over time.

### Unit 3: Technology Standards

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.E.1: Use digital tools and online resources to explore a problem or issue.

8.2.2.B.1 Identify how technology impacts or improves life.

8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.C.1: Collaborate with peers by participating in interactive digital games or activities.

### Unit 3: Social Emotional Competencies

#### Self-Awareness:

- Recognize one's personal traits, strengths, and limitations
- Recognize the importance of self-confidence in handling daily tasks and challenges

#### Social Awareness

- Demonstrate an understanding of the need for mutual respect when viewpoints differ
- Demonstrate an awareness of the expectations for social interactions in a variety of settings.

#### Responsible Decision-Making:

- Develop, implement, and model effective problem-solving and critical thinking skills
- Evaluate personal, ethical, safety, and civic impact of decisions

## Unit 3 Sequence

| Activities/Concepts  | Formative & Summative Assessments   |
|--|---|
| <p><b>Topic 9: Numbers to 1,000</b></p> <p>Lesson 9-1: Understand Hundreds</p> <p>Lesson 9-2: Models and 3-Digit Numbers</p> <p>Lesson 9-3: Name Place Values</p> <p>Lesson 9-4: Read and Write 3-Digit Numbers</p> <p>Lesson 9-5: Different Ways to Name the Same Number</p> <p>Lesson 9-6 Place-Value Patterns with Numbers</p> <p>Lesson 9-7: Skip Count by 5s, 10s, 100s, to 1,000</p> <p>Lesson 9-8: Compare Numbers Using Place Value</p> <p>Lesson 9-9: Compare Numbers on the Number Line</p> <p>Lesson 9-10: Problem Solving: Look For and Use Structure</p> <p>3 ACT MATH: Make Cents</p><br><p><b>Topic 10: Add Within 1,000 Using Models and Strategies</b></p> <p>Lesson 10-1: Add 10 and 100</p> <p>Lesson 10-2: Add on an Open Number Line</p> <p>Lesson 10-3: Add Using Models</p> <p>Lesson 10-4: Continue to Add Using Models and Place Value</p> <p>Lesson 10-5: Add Using Place Value and Partial Sums</p> | <ul style="list-style-type: none"> <li>● Vocabulary Review</li> <li>● Topic Assessment Practice</li> <li>● Topic Assessment</li> <li>● Topic Performance Task</li> <li>● Basic-Facts Timed Tests (Optional)</li> <li>● Interactive Tutor Buddy (Optional)(Digital)</li> <li>● Assess Student Workbook</li> <li>● Administer Online Tests (Optional)</li> <li>● Complete Quick Check (Checked problems in student workbook)</li> <li>● Reteaching Sheets (Optional)</li> <li>● Cumulative/Benchmark Assessment (Topic 1-8)</li> <li>● Fluency Practice Activities (Optional)</li> <li>● Homework Workbook</li> <li>● Math Anytime (Daily Review)</li> <li>● Today's Challenge</li> </ul> |

Lesson 10-6: Explain Addition Strategies

Lesson 10-7 Problem Solving: Repeated Reasoning

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

Lesson 11-1: Subtract 10 and 100

Lesson 11-2: Subtract on an Open Number Line

Lesson 11-3: Subtract Using Models

Lesson 11-4: Subtract Using Models and Place Value

Lesson 11-5: Explain Subtraction Strategies

Lesson 11-6: Problem Solving: Persevere

3 ACT MATH: The Chemistry Set

**Lesson 12: Measuring Length**

Lesson 12-1: Estimating Length

Lesson 12-2: Measure with Inches

Lesson 12-3: Inches, Feet, and Yards

Lesson 12-4: Measure Length Using Different Customary Units

Lesson 12-5: Measure with Centimeters

Lesson 12-6: Centimeters and Meters

Lesson 12-7: Measure Length Using Different Metric Units

Lesson 12-8: Compare Lengths

Lesson 12-9: Problem Solving: Precision

**Essential Questions:****Topic 9**

Lesson 9-1: How can you find the value of a group of hundreds?

Lesson 9-2: How can you show and write 3-digit numbers?

Lesson 9-3: How does the position of a digit help you name its value?

Lesson 9-4: How can you write a 3-digit number in three different ways?

Lesson 9-5: How can you use hundred, tens, and ones to make a number in different ways?

Lesson 9-6: How can you use place-value patterns to help you count by 1s and 10s from a given number, such as 346?

Lesson 9-7: How can you use skip counting to find missing numbers on a number line?

Lesson 9-8: How can you compare two numbers?

Lesson 9-9: How can you use a number line to help you find a number that is greater or less than a given number?

Lesson 9-10: How can you find the number that comes next in a number pattern?

**Topic 10**

Lesson 10-1: How can you use mental math to add 10 (or 100) to a 3-digit number?

Lesson 10-2: How can you use an open number line to add 3-digit numbers?

Lesson 10-3: How can you use models to add 3-digit numbers?

Lesson 10-4: How can you use partial sums to add 3-digit numbers?

Lesson 10-5: How can you use place value and partial sums to add 3-digit numbers?

Lesson 10-6: How can you explain why addition strategies work?

Lesson 10-7: How can repeated reasoning help you add 3-digit numbers?

### **Topic 11**

Lesson 11-1: How can you use mental math to subtract 10 (or 100) from a 3-digit number?

Lesson 11-2: How can you use an open number line to solve a subtraction problem?

Lesson 11-3: How can models help you regroup to subtract 3-digit numbers?

Lesson 11-4: How can you use models and place value to subtract 3-digit numbers?

Lesson 11-5: How can you explain why subtraction strategies work?

Lesson 11-6: How can you make sense of a word problem that has a hidden question, and what steps can you use to solve it?

### **Topic 12**

Lesson 12-1: How can you use lengths of objects you know to estimate the lengths of other objects?

Lesson 12-2: How can you use a ruler to measure the length or height of an object?

Lesson 12-3: How can you measure the length or height of an object in inches, feet, or yards?

Lesson 12-4: Why do you need more or fewer of some units to measure the length of an object in inches, feet, or yards?

Lesson 12-5: How can you use a centimeter ruler to measure length or height to the nearest centimeter?

Lesson 12-6: How can you measure the length or height of an object in meters or centimeters?

Lesson 12-7: Why do you need more or fewer of some units to measure the same object in meters or centimeters?

Lesson 12-8: How can you find how much longer one length is than another?

Lesson 12-9: How can you tell if your work is precise when measuring length?

### Unit 3: What It Looks Like in the Classroom

#### Topic 9

Student Workbook Pages 374-415

Fluency Practice Activity: Page 417

Vocabulary Review: Page 418

Reteaching: Pages 419-422

Topic 9: Assessment Practice: Pages 423-426

#### Topic 10

Student Workbook Pages 429-460

Fluency Practice Activity: 461

Vocabulary Review: Page 462

Reteaching: Pages 463-464

Topic 10: Assessment Practice: Pages 465-468

Focus Vocabulary: Partial differences

### **Topic 11**

Student Workbook Pages 469-496

Fluency Practice Activity: Page 497

Vocabulary Review: Page 498

Reteaching: Pages 499-500

Topic 11: Assessment Practice: Pages 501-504

### **Topic 12**

Student Workbook Pages 505-544

Fluency Practice Activity: 545

Vocabulary Review: Page 546

Reteaching: Pages 547-550

Topic 12: Assessment Practice: Pages 551-554

### **Instructional Plan:**

Introduction of Topic:

- Interactive Math Story (Digital & Teacher's Resource Masters)
- Topic Opener
- Review Topic Vocabulary

Daily:

- Daily Review (Math Anytime)
- Today's Challenge (Optional) (Can be used anytime in topic)
- Solve & Share Activity: Analyze Student Work (Formative Assessment)

- Visual Learning Bridge: Introduce Essential Question (Digital)
- Convince Me! (Formative Assessment)
- Guided Practice (Formative Assessment)
- Independent Practice
- Problem Solving
- Quick Check (Complete Checked Problems) (Formative Assessment)
- Optional: Interactive Tutor Buddy (Digital)
- Optional Use: Reteach to Build Understanding, Build Mathematical Literacy, Enrichment (Teacher's Resource Masters)
- Homework: Additional Practice Workbook

End of Topic:

- Fluency Practice Activity
- Vocabulary Review
- Reteaching
- Assessment Practice
- Topic Assessment
- Topic Performance Task
- Cumulative/Benchmark Assessment Topics 1-12

Topics 9 & 11: : 3 ACT-MATH

### Unit 3: Resources

Envisions Mathematics 2020 Student Handbook

Envisions Student Additional Practice Workbook

Envisions Teacher's Resource Masters Volume 2 Topics 9-12

Digital Resources: Pearson Website, [ixl.com](http://ixl.com)

### Unit 3: Modifications

*At Risk Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*Students with Disabilities/504:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*ELL Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard, Daily review, For Spanish speakers use the Spanish resource materials to support understanding, complete additional Vocabulary Activities

*Gifted & Talented/Enrichment:* Use of Enrichment worksheets, Pick a Project, envision Stem Activity, assign IXL at level/or higher level

**PACING GUIDE**-Math should be taught daily for 75 minutes. This unit covers Topics 13 through 15 and Step It Up, for a total of 39 days. This includes a day to complete: 3 ACT MATH (Topics 13 & 157) review, performance task, practice assessment, and assessment.

Topic 13: 13 Days

Topic 14: 9 Days

Topic 15: 11 Days

Topic 16: Step It Up to 3rd: 10 Days

In this unit of study:

- 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.
- Focuses on the application of understanding of addition and subtraction within 100 to solving word problems involving lengths. Write and solve addition and subtraction equations using symbols for unknown values. Use number lines to represent whole-number sums and differences within 100.
- Focuses on collecting, representing, and interpreting data. Practice measurement skills to generate measurement data which they display in a line plot. Use categorical data to create and interpret bar graphs and picture graphs.
- Relate addition and multiplication

**This unit is based on Topics 13-16 and the following Math Standards and Practices (by topic):**

### **Topic 13: Shapes and Their Attributes**

Lesson 13-1: 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.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes, 2.OA.B.2 Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers, MP.3, MP.4 ,MP.6

Lesson 13-2: 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.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes, 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes, MP.2, MP.6, MP.7

Lesson 13-3: 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.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes, 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes, MP.1, MP.6, MP.7

Lesson 13-4: 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.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes, 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes, MP.2, MP.6, MP.7

Lesson 13-5: 2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them, 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, MP.4, MP.5, MP.7

Lesson 13-6: 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, 2.MD.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, MP.2, MP.4, MP.6

3-Act Math: Straw Shaped: The 3-ACT Math can be used any time after lesson 13-7 2.MD.A.4, 2.MD.A.1, 2.MD.B.5, 2.G.A.1, MP.4, MP.5, MP.7 page 560

Lesson 13-7: 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, 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, MP.2, MP.3

Lesson 13-8: 2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them, 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, 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, MP.8, MP.1,MP.2, MP.3, MP.4, MP. 7

## **Topic 14: More Addition, Subtraction, and Length**

Lesson 14-1: 2.MD.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, 2.OA.A.1, MP.2, MP.4, MP.6

Lesson 14-2: 2.MD.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, 2.OA.A.1  
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., MP.1, MP.3, MP.4

Lesson 14-3: 2.MD.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, 2.OA.A.1  
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, MP.1, MP.3, MP.7

Lesson 14-4: 2.MD.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., 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, MP.2, MP.4, MP.5

Lesson 14-5: 2.MD.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, 2.OA.A.1  
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, 2.MD.B.6, MP.5, MP.1, MP.3, MP.4, MP.6, MP.8,

## Topic 15: Graphs and Data

Lesson 15-1: 2.MD.D.9 Generate measurement data by measuring lengths of several objects to the 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, 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes, MP.2, MP.5, MP.6

Lesson 15-2: 2.MD.D.9 Generate measurement data by measuring lengths of several objects to the 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, 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes, MP.2, MP.4, MP.6

Lesson 15-3: 2.MD.D.10 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, 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, MP.2, MP.3, MP.4

Lesson 15-4: 2.MD.D.10 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, 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, MP.3, MP.4, MP.8

Lesson 15-5: 2.MD.D.10 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, 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, MP.1, MP.3, MP.7

3-ACT MATH: Caps Sized Use this 3-ACT MATH task any time after lesson 15-5 2.MD.D.10 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, 2.MD.D.9 Generate measurement data by measuring lengths of several objects to the 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, MP.4, MP.5, MP.6

Lesson 15-6: 2.MD.D.10 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, 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, MP.2, MP.1, MP.3, MP.6, MP.8

### **Topic 16: Step Up to 3rd**

Lesson 16-1: 3.OA.A.1 Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as  $5 \times 7$ .

Lesson 16-2: 3.OA.A.1 Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as  $5 \times 7$ .

Lesson 16-3: 3.OA.A.3 3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem

Lesson 16-4: 3.OA.A.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem

Lesson 16-5: 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.

Lesson 16-6: 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.

Lesson 16-7: 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.

Lesson 16-8: 2.NBT.B.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Lesson 16-9: 3.NF.A.1. Understand a fraction  $\frac{1}{b}$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $\frac{a}{b}$  as the quantity formed by  $a$  parts of size  $\frac{1}{b}$ .

Lesson 16-10: 3.NF.A.1. Understand a fraction  $\frac{1}{b}$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $\frac{a}{b}$  as the quantity formed by  $a$  parts of size  $\frac{1}{b}$ .

**\*Additional ELA Companion and Interdisciplinary Standards:**

NJSLSA.R.8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.

RI.2.7. Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

NJSLSA.W.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

**Next Generation Science Standards: enVision STEM Project (Optional)**

Topic 13: K-2-ETS1-2

Topic 14: 2-ESS2-2

Topic 15: K-2-ETS1-3

## Unit 4: Student Learning Objectives

### We are learning to (WALT):

#### Topic 13 :

Lesson 13-1: Recognize shapes by how they look.

Lesson 13-2: Recognize plane shapes by how they look.

Lesson 13-3: Draw polygon shapes.

Lesson 13-4: Draw cubes and describe how they look.

Lesson 13-5: Partition rectangles into equal size squares.

Lesson 13-6: Partition circles and rectangles into halves, thirds, and fourths.

Lesson 13-7: Make equal shares that do not have the same shape.

Lesson 13-8: Use repeated reasoning to show rectangles with rows and columns and create designs with equal shares.

#### Topic 14:

Lesson 14-1: Solve problems by adding or subtracting length measurements.

Lesson 14-2: Add or subtract to solve problems about measurement.

Lesson 14-3: Add and subtract to solve measurement problems by using drawing and equations.

Lesson 14-4: Add or subtract on a number line.

Lesson 14-5: Choose the best tool to use to solve problems.

#### Topic 15:

Lesson 15-1: Measure the lengths of objects and make a line plot to organize the data.

Lesson 15-2: Measure the lengths of objects, then make a line plot to organize the data..

Lesson 15-3: Draw bar graphs and use them to solve problems.

Lesson 15-4: Draw picture graphs and use them to solve problems.

Lesson 15-5: Draw conclusions from graphs.

Lesson 15-6: Reason about data in bar graphs and picture graphs to write and solve problems.

**Topic 16:**

Lesson 16-1: Use repeated addition to show the relationship between multiplication and addition.

Lesson 16-2: Use arrays and properties to understand multiplication

Lesson 16-3: Use sharing to separate equal groups and to think about division.

Lesson 16-4: Use repeated subtraction to show the relationship between division and subtraction.

Lesson 16-5: Add two 3-digit numbers by breaking apart problems into simpler problems.

Lesson 16-6: Use regrouping to add 3-digit numbers.

Lesson 16-7: Subtract multi-digit numbers using the expanded algorithm.

Lesson 16-8: Use regrouping to subtract 3-digit numbers.

Lesson 16-9: Understand how to read and write unit fractions for equal-sized parts of a region

Lesson 16-10: Use a fraction to represent multiple copies of a unit fraction.

#### **Unit 4: Career Readiness, Life Literacies, & Key Skills (CLKS) Standards**

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

9.1.2.FP.1: Explain how emotions influence whether a person spends or saves.

9.1.2.FP.2: Differentiate between financial wants and needs.

9.1.2.FP.3: Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).

9.1.2.PB.2: Explain why an individual would choose to save money.

9.1.2.PB.1: Determine various ways to save and places in the local community that help people save and accumulate money over time.

## Unit 4: Technology Standards

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.

8.1.2.E.1: Use digital tools and online resources to explore a problem or issue.

8.2.2.B.1 Identify how technology impacts or improves life.

8.1.2.A.4: Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.C.1: Collaborate with peers by participating in interactive digital games or activities.

## Unit 4: Social Emotional Competencies

### Self-Awareness:

- Recognize one's personal traits, strengths, and limitations
- Recognize the importance of self-confidence in handling daily tasks and challenges

### Social Awareness

- Demonstrate an understanding of the need for mutual respect when viewpoints differ
- Demonstrate an awareness of the expectations for social interactions in a variety of settings.

### Responsible Decision-Making:

- Develop, implement, and model effective problem-solving and critical thinking skills
- Evaluate personal, ethical, safety, and civic impact of decisions

## Unit 4: Sequence

| Activities/Concepts  | Formative & Summative Assessments  |
|--|--|
| <p><b>Topic 13: Shapes and Their Attributes</b></p> <p>Lesson 13-1: 2-Dimensional Shapes</p> <p>Lesson 13-2: Polygons and Angles</p> <p>Lesson 13-3: Draw 2-Dimensional Shapes</p> <p>Lesson 13-4: Cubes</p> <p>Lesson 13-5: Equal Shares</p> <p>Lesson 13-6: Partition Shapes</p> <p>Lesson 13-7: Equal Shares, Different Shapes</p> <p>Lesson 13-8: Problem Solving: Repeated Reasoning</p> <p>3 ACT MATH: Straw Shaped</p> <p><b>Topic 14: More Addition, Subtraction, and Length</b></p> <p>Lesson 14-1: Add and Subtract with Measurements</p> <p>Lesson 14-2: Find Unknown Measurements</p> <p>Lesson 14-3: Continue to Find Unknown Measurements</p> <p>Lesson 14-4: Add and Subtract on a Number Line</p> <p>Lesson 14-5: Problem Solving: Use Appropriate Tools</p> | <ul style="list-style-type: none"> <li>● Vocabulary Review</li> <li>● Topic Assessment Practice</li> <li>● Topic Assessment</li> <li>● Topic Performance Task</li> <li>● Basic-Facts Timed Tests (Optional)</li> <li>● Interactive Tutor Buddy (Optional)(Digital)</li> <li>● Assess Student Workbook</li> <li>● Administer Online Tests (Optional)</li> <li>● Complete Quick Check (Checked problems in student workbook)</li> <li>● Reteaching Sheets (Optional)</li> <li>● Cumulative/Benchmark Assessment (Topic 1-16)</li> <li>● Fluency Practice Activities (Optional)</li> <li>● Homework Workbook</li> <li>● Math Anytime (Daily Review)</li> <li>● Today's Challenge</li> </ul> |

**Topic 15: Graphs and Data**

Lesson 15-1: Line Plots

Lesson 15-2: More Line Plots

Lesson 15-3: Bar Graphs

Lesson 15-4: Picture Graphs

Lesson 15-5: Draw Conclusions From Graphs

Lesson 15-6: Problem Solving: Reasoning

3 ACT MATH: Caps Sized

**Topic 16: Step it Up**

Lesson 16-1: Relate Multiplication and Addition

Lesson 16-2: Arrays and Properties

Lesson 16-3: Division: How Many in Each Group?

Lesson 16-4: Division: How Many Equal Groups?

Lesson 16-5: Use Partial Sums to Add

Lesson 16-6: Use Regrouping to Add

Lesson 16-7: Use Partial Differences to Subtract

Lesson 16-8: Use Regrouping to Subtract

Lesson 16-9: Partition Regions into Equal parts

Lesson 16-10: Fractions and Regions

**Essential Questions:****Topic 13**

Lesson 13-1: How can you tell the name of a 2-dimensional shape?

Lesson 13-2: How can you tell if a shape is a polygon?

Lesson 13-3: What information should you give if you want them to draw a particular polygon?

Lesson 13-4: How do you use the words faces, edges, and vertices to describe a cube?

Lesson 13-5: What are two different ways to find the total number of equal-sized squares that cover a rectangle?

Lesson 13-6: When you show a shape with two-three-four equal shares, what are the shares called?

Lesson 13-7: Do equal shares have to be the same size and shape? Explain.

Lesson 13-8: How can you use repeated reasoning to divide shapes into equal shares?

#### **Topic 14**

Lesson 14-1: How do you know when to add or subtract when solving problems involving measurement?

Lesson 14-2: How can you solve addition and subtraction problems involving length?

Lesson 14-3: How can drawing a picture and writing an equation help you solve measurement word problems?

Lesson 14-4: How can you use a number line to help solve addition and subtraction problems involving length measurements?

Lesson 14-5: How can you pick the best tool to solve a problem?

#### **Topic 15**

Lesson 15-1: Why is it helpful to use a line plot to display data?

Lesson 15-2: Why are line plots a useful way to organize large amounts of data?

Lesson 15-3: Why is making a bar graph from a table of data a good way to compare those data?

Lesson 15-4: How does a picture graph help you compare data?

Lesson 15-5: Why are picture graphs and bar graphs useful tools for drawing conclusions about data?

Lesson 15-6: How can you use graphs to write and solve problems about data?

**Topic 16:**

Lesson 16-1: How are multiplication and addition related?

Lesson 16-2: How do arrays help you understand multiplication?

Lesson 16-3: What does it mean to share equally? What are you asked to find?

Lesson 16-4: How are division and subtraction related?

Lesson 16-5: How do you find sums of 3-digit numbers using place value?

Lesson 16-6: How do you use partial sums and regrouping to add 3-digit numbers?

Lesson 16-7: How does expanded algorithm help to subtract 3-digit numbers?

Lesson 16-8: How does regrouping help to subtract 3-digit numbers?

Lesson 16-9: What is a unit fraction?

Lesson 16-10: How can you use a fraction to represent multiple copies of a unit fraction?

## Unit 4: What It Looks Like in the Classroom

### Topic 13

Student Workbook Pages 557-592

Fluency Practice Activity: Page 593

Vocabulary Review: Page 594

Reteaching: Pages 595-598

Topic 13: Assessment Practice: Pages 599-602

Focus Vocabulary: angle, cube, edge, equal shares, face, fourths, halves, hexagon, pentagon, polygon, quadrilateral, right angle, thirds, vertex

### Topic 14

Student Workbook Pages 605-628

Fluency Practice Activity: 629

Vocabulary Review: Page 630

Reteaching: Pages 631-632

Topic 14: Assessment Practice: Pages 633-634

Focus Vocabulary: centimeter (cm), foot (ft), height, inch (in.), length, mental math, meter (m), yard (yd)

### Topic 15

Student Workbook Pages 637-664

Fluency Practice Activity: Page 665

Vocabulary Review: Page 666

Reteaching: Pages 667-670

Topic 15: Assessment Practice: 671-674

Focus Vocabulary: bar graph, data, line plot, picture graph, symbol

**Topic 16:**

Student Workbook Pages Online only: pages 1-40

**Instructional Plan:**

Introduction of Topic:

- Interactive Math Story (Digital & Teacher's Resource Masters)
- Topic Opener
- Review Topic Vocabulary

Daily:

- Daily Review (Math Anytime)
- Today's Challenge (Optional) (Can be used anytime in topic)
- Solve & Share Activity: Analyze Student Work (Formative Assessment)
- Visual Learning Bridge: Introduce Essential Question (Digital)
- Convince Me! (Formative Assessment)
- Guided Practice (Formative Assessment)
- Independent Practice
- Problem Solving
- Quick Check (Complete Checked Problems) (Formative Assessment)
- Optional: Interactive Tutor Buddy (Digital)
- Optional Use: Reteach to Build Understanding, Build Mathematical Literacy, Enrichment (Teacher's Resource Masters)
- Homework: Additional Practice Workbook

End of Topic:

- Fluency Practice Activity
- Vocabulary Review
- Reteaching

- Assessment Practice
- Topic Assessment
- Topic Performance Task
- Cumulative/Benchmark Assessment Topics 1-15

Topics 13 & 15: : 3 ACT-MATH

#### **Unit 4: Resources**

Envisions Mathematics 2020 Student Handbook

Envisions Student Additional Practice Workbook

Envisions Teacher's Resource Masters Volume 2 Topics 9-15

Digital Resources: Pearson Website, [ixl.com](http://ixl.com)

#### Unit 4: Modifications

*At Risk Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*Students with Disabilities/504:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard

*ELL Students:* Use of Intervention Kit (BSI materials), use of Reteaching to Build Understanding, Build Mathematical Literacy, Assign Interactive Tutor Buddy (digital), assign same/lower level IXL standard, Daily review, For Spanish speakers use the Spanish resource materials to support understanding, complete additional Vocabulary Activities

*Gifted & Talented/Enrichment:* Use of Enrichment worksheets, Pick a Project, envision Stem Activity, assign IXL at level/or higher level