

Course Title: Mathematics	Full Year	Required
<p>Course Description: The mathematical work for grade 1 is partitioned into 8 units:</p> <ol style="list-style-type: none"> 1. Adding, Subtracting, and Working with Data 2. Addition and Subtraction Story Problems 3. Adding and Subtracting within 20 4. Numbers to 99 5. Adding within 100 6. Length Measurements within 120 units 7. Geometry and Time 8. Putting it All Together <p>In these materials, particularly in units that focus on addition and subtraction, teachers will find terms that refer to problem types, such as Add To, Take From, Put Together or Take Apart, Compare, Result Unknown, and so on. These problem types are based on common addition and subtraction situations, as outlined in Table 1 of the Mathematics Glossary section of the Common Core State Standards.</p>		
<p>Additional Course Information:</p> <p>The big ideas in grade 1 include:</p> <ul style="list-style-type: none"> ● developing understanding of addition, subtraction, and strategies for addition and subtraction within 20 ● developing understanding of whole-number relationships and place value, including grouping in tens and ones ● developing understanding of linear measurement and measuring lengths as iterating length units ● reasoning about attributes of, and composing and decomposing geometric shapes. 	<p>Core Resources:</p> <p>Illustrative Mathematics</p> <p>Instructional Routines and Math Language Routines</p> <p>Glossary - Student-friendly</p> <p>Required Materials</p> <p>IM en Español</p> <p>Developing a Mathematical Community</p>	<p>Are there any attachments <u>at the course level</u> that teachers will need?</p> <p>Scope and Sequence - This document should be reviewed at the start of the year and each unit for information on language routines, expectations, and possible misconceptions.</p> <p>Pacing Guide and Dependency Diagrams K-5</p>

Unit Overview - FOCUS: Unit Learning Goals

- Students use place value understanding and properties of operations to add within 100.

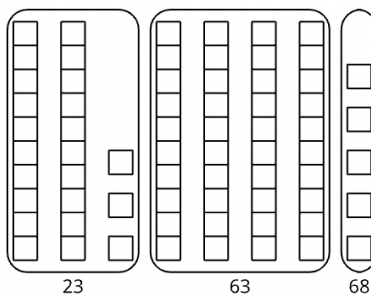
In this unit, students add within 100, using place value and properties of operations in their reasoning. Previously, students composed, decomposed, and compared numbers within 100. They reasoned about units of tens and ones and represented numbers with connecting cubes, base-ten drawings, expressions, and equations in different ways (for example, $65 = 60 + 5$ and $65 = 50 + 15$). Here, they build on these understandings of place value to find sums.

Students begin by adding a two-digit number with another two-digit number or with a one-digit number where it is not necessary to compose a new ten. Then, they observe cases in which adding some ones together requires composing a new ten.

Two broad methods for finding sums are explored: adding on by place (adding on tens, then ones), and adding units by place (combining tens with tens and ones with ones).

Along the way, they also compare methods from earlier work, such as counting on and making use of known sums, including sums of 10.

$23 + 45$
Add on tens, then add on ones:



To make sense of methods for adding (especially as it relates to composing a ten when adding ones and ones), students work with a variety of representations—connecting cubes in towers of 10 and singles, base-ten drawings, expressions, and equations. They also use different representations to share their thinking with others.

Topic Titles:

- Section A: Add Without Making a Ten
 - Add within 100 without composing a ten.
 - Use equations to represent addition methods.
- Section B: Make a Ten: Add One- and Two-Digit Numbers
 - Add a one-digit and a two-digit number within 100 with composing a ten.
 - Use equations to represent addition methods.
- Section C: Make a Ten: Add Within 100
 - Add 2 two-digit numbers within 100, with composing a ten.
 - Use equations to represent addition methods.

Expressions and equations are presented horizontally here to encourage students to make sense of the numbers and ways of adding rather than apply an algorithm. Eventually, they write equations to represent their thinking. For example, to find the sum of $52 + 46$, they might write:

$$\begin{array}{ccc} 52 + 40 = 92 & \text{or} & 50 + 40 = 90 \\ 92 + 6 = 98 & & 2 + 6 = 8 \\ & & 90 + 8 = 98 \end{array}$$

Students are not expected to write or use equations in any specific way. Even in activities that focus on interpreting and writing equations, students should have continued access to drawings and other tools for sense making. Provide access to connecting cubes in towers of 10 and singles throughout the unit.

Coherence: How does this unit build on and connect to prior knowledge and learning?

In Unit 4, students learned to view ten ones as a unit called a ten. The ability to compose and decompose this unit flexibly and to view the numbers 11 to 19 as composed of one ten and some ones allows development of efficient, general base-ten methods for addition and subtraction. Students saw a two-digit numeral as representing some tens and they add and subtract using this understanding.

Grade 1 students took the important step of viewing ten ones as a unit called a “ten.” They learned to view the numbers 11 through 19 as composed of 1 ten and some ones. They learned to view the decade numbers 10, . . . , 90, in written and in spoken form, as 1 ten, . . . , 9 tens. More generally, first graders learned that the two digits of a two-digit number represent amounts of tens and ones, e.g., 67 represents 6 tens and 7 ones. Saying 67 as “6 tens, 7 ones” as well as “sixty-seven” can help students focus on the tens and ones structure of written numerals.

(The paragraph above was taken from the [Progressions Documents for the Common Core State Standards for Mathematics: Number & Operations in Base Ten: Grades K-5](#) found [here](#).)

Essential Questions:

1. How can I represent and solve addition problems within 100?

Enduring Understanding:

When adding two-digit numbers, students can add like units: tens and tens, and ones and ones. Students learn that sometimes when adding two-digit numbers within 100, it is necessary to compose a ten from ones. They draw on the idea of making a ten, which they learned when adding ones and when adding numbers within 20. Students see that no matter which order they use to combine parts of the addends, the sum remains the same.

<p>What Students Will Know:</p> <ul style="list-style-type: none"> ● Place value understanding to 99 ● Addition within 100 ● Counting ● Reading and writing whole numbers to 99 ● Add within 20 	<p>What students will do:</p> <ul style="list-style-type: none"> ● Add within 100 without composing a ten. ● Use equations to represent addition methods. ● Add a one-digit and a two-digit number within 100 with composing a ten. ● Use equations to represent addition method ● Add 2 two-digit numbers within 100, with composing a ten. ● Use equations to represent addition methods. 	<p>Unit Specific Vocabulary:</p> <p>Academic vocabulary</p> <ul style="list-style-type: none"> subitize column composing one-digit number two-digit number expression associative property commutative property decompose expression
<p>Entry Level Assessment and Connection to Unit:</p> <p>Section A: Pre-Unit Problems</p> <p>Section B: Pre-Unit Problems</p> <p>Section C: Pre-Unit Problems</p>	<p>Unit Materials, Resources and Technology:</p> <ul style="list-style-type: none"> ● Illustrative Mathematics ● Instructional Routines and Math Language Routines ● Glossary - Student-friendly ● Required Materials ● IM en Español ● Pacing Guide and Dependency Diagrams K-5 ● End of Unit 5 Assessment ● End of Unit 5 Assessment Teacher Guide 	
<p>Opportunities for Interdisciplinary Connections:</p> <p>Connections to this unit can be found in many places across content-areas. Be on the lookout for countable collections in which students can utilize math concepts to count, compare, order, and add within 100. Such collections may include:</p> <ul style="list-style-type: none"> ● Animals/insects in a habitat ● Objects around the room or in a book (i.e., stickers, hats, etc.) ● Stars 		

<p>Any links, attachments and resources:</p> <p>Instructional Routines Document</p> <p>Family Support Materials Unit 5</p>	<p>Planning Ideas:</p> <p>Components of a Typical IM Lesson</p> <p>What To Know About IM When Planning</p> <p>Where to Find the Mathematical Practices in the Units</p> <p>Assessing the Mathematical Practices</p>
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Topic # 1 (Section A)

Topic Name: Section A - Add Without Making a Ten

Duration:

Recommended: 4 days

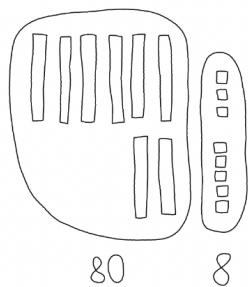
Topic Description: In this section, students add a two-digit number and a one- or two-digit number without composing a ten. They build on the work of prior units, in which they added one-digit numbers and teen numbers without composing a ten, and added multiples of 10 to two-digit numbers. Here, students see that when adding two-digit numbers they can add like units: tens and tens, and ones and ones.

When adding, students may use connecting cubes or drawings to show the grouping of tens and of ones and to compose a new unit of ten. They are encouraged to explain, connect, and compare their methods for finding the value of sums. Monitor for the language students use to describe their methods and emphasize vocabulary related to place value. Give students opportunities to revise their explanations and add to their representations for clarity and precision (MP6).

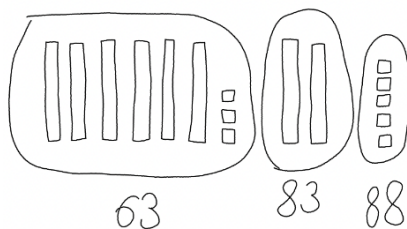
At the end of the section, students write equations to represent their thinking. They may write a single equation that shows the sum ($52 + 46 = 98$) or they may write a series of equations to represent how they solved the problem ($50 + 40 = 90$, $2 + 6 = 8$, $90 + 8 = 98$).

Here are 2 drawings students made for $63 + 25$.

Elena's Work



Andre's Work



Which equations go with which drawing?

Set A

$$63 + 20 = 83$$

$$83 + 5 = 88$$

Set B

$$60 + 20 = 80$$

$$3 + 5 = 8$$

$$80 + 8 = 88$$

Section Learning Goals

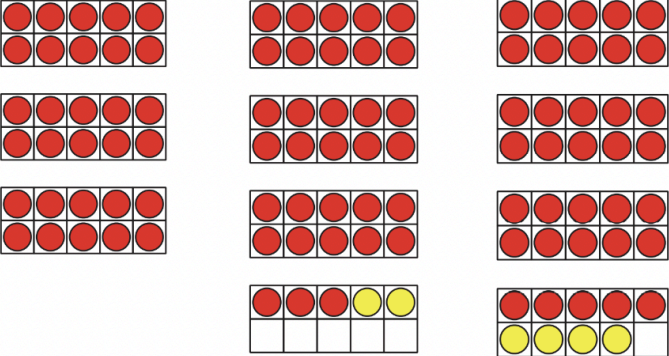
- Add within 100 without composing a ten.
- Use equations to represent addition methods.

<p>Competencies Addressed: 1.NBT.A.1, 1.NBT.B.2, 1.NBT.C.4, 1.OA.A.1, 1.OA.C.6, 1.OA.D.8</p> <p>Understanding and Applying Number Systems</p> <p>Indicator 1: I can understand place value</p> <p>Indicator 2: I can count read and write whole numbers</p> <p>Indicator 4: I can use my understanding of place value and properties of operations to add.</p> <p>Operations and Algebraic Thinking</p> <p>Indicator 1: I can add within 20 using strategies.</p> <p>Indicator 2: I can subtract within 20 using strategies.</p> <p>Indicator 3: I can represent and solve problems involving addition and subtraction.</p>	<p>Essential Question and Enduring Understanding Addressed in this Topic:</p> <p>Essential Question How can I represent and solve addition problems within 100?</p> <p>Enduring Understanding When adding two-digit numbers, students can add like units: tens and tens, and ones and ones. Students learn that sometimes when adding two-digit numbers within 100, it is necessary to compose a ten from ones. They draw on the idea of making a ten, which they learned when adding ones and when adding numbers within 20. Students see that no matter which order they use to combine parts of the addends, the sum remains the same.</p>
<p>In this Topic, students will know:</p> <ul style="list-style-type: none"> ● Place Value Understanding to 99 ● Addition within 100 	<p>Topic Vocabulary: Academic vocabulary one-digit number two-digit number column subitize expression</p>
<p>In this Topic, students will be able to:</p> <ul style="list-style-type: none"> ● Add within 100 without composing a ten. ● Use equations to represent addition methods. 	<p>Plan for Student Reflection:</p> <p>Student Journal Prompts and Reflection Practices</p> <hr/> <p>Plan for Teacher Reflection:</p> <p>Lesson 1: How does the work of this lesson prepare students for adding 2 two-digit numbers in the next</p>

	<p>lesson?</p> <p>Lesson 2: What connections did students make between the different methods shared? What questions did you ask to help make the connections more visible?</p> <p>Lesson 3: Today students were asked to share their thinking in a way that would make sense to their partner. What have you noticed about the language students use? What support can you offer to students who struggle to communicate their ideas orally?</p> <p>Lesson 4: How are students working together during center time? Are all students getting the opportunity to participate in the mathematics?</p> <p>Utilize additional strategies for Teacher Reflection:</p> <ul style="list-style-type: none">● Reviewing formative assessments● Developing scaffolds● Collaborative scoring● PLCs● Planning for small groups
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Topic 1 Task Development

Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the [Learning Cycle Model](#) that drives teaching and learning in Naugatuck Public Schools.

<p>Task Title: Topic 1 - Add Without Making a Ten</p>	<p>Grade Level and Unit: Grade 1, Unit 5</p>
<p>Description of Task: The purpose of this task is for students to find the sum of 2 two-digit numbers and represent their thinking with equations. Students then orally explain their steps to a partner and how the equations they wrote match their steps. Partners listen and then practice restating what they heard their partner say. Restating what a partner has said helps ensure students listen for understanding as their partner explains their thinking. Students have multiple opportunities to explain their thinking and the thinking of a partner and revise their language for clarity (MP3, MP6).</p>	<p>Purpose of Task: The purpose of this task is for students to add 2 two-digit numbers, without composing a ten, using methods based on place value and to write equations to represent addition methods.</p>
<p>Background of Students/Learning Progression: In previous lessons, students used methods based on place value to add within 100, without composing a ten. They analyzed equations that represent methods for finding the sum.</p>	<p>Ensure all competencies are addressed in the task:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes, all competencies are addressed <input type="checkbox"/> No - Task needs modification
<p>Getting Started:</p> <p>Lesson 1: Add Tens or Ones: Warm-Up - How Many Do You See: 10-frames</p> <ul style="list-style-type: none"> • The purpose of this lesson is for students to add tens or ones to two-digit numbers, without composing a ten, in a way that makes sense to them. • Teacher presentation materials • Slides <p>The purpose of this How Many Do You See is for students to subitize or use grouping strategies to describe the images they see. When students look for ways to see and describe numbers as groups of tens and ones and connect this to two-digit numbers, they look for and make use of the base-ten structure (MP7).</p> <p>Launch:</p> <ul style="list-style-type: none"> • Groups of 2 • “How many do you see? How do you see them?” <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;">  </div>	

- Flash image.
- 30 seconds: quiet think time

Activity:

- Display image.
- “Discuss your thinking with your partner.”
- 1 minute: partner discussion
- Record responses.
- Repeat for each image.

Sample responses:

- 30: I see three 10-frames that are full.
- 35: I see three 10-frames that are full and then 3 red and 2 yellow make 5. I know that $30 + 5$ is 35.
- 39: I see that if there was one more, there would be four full 10-frames which would be 40. Since one is missing there are 39.

Synthesis:

- “How did we describe the second image using tens and ones? How many tens do you see? How many ones?” (Some people said they saw it as 3 tens and 5 ones.)
- “How could we describe the last image using tens and ones?” (3 tens and 9 ones)
- “How could we write equations to go with the last image?” ($35 + 4 = 39$ or $30 + 9 = 39$)

Learning Cycle Model Process

Section A

IM Lesson	L1: Add Tens or Ones	L2: How Did You Add?	L3: Add It, Explain It	L4: Center Day 1
Learning Cycle Model	Getting Started & Making Meaning	Making Meaning	Investigate & Create and Produce	Additional Learning
Naugatuck Math Competency	Addressing 1.NS.1, 1.NS.2, 1.NS.3	Addressing 1.NS.2, 1.NS.4	Addressing 1.NS.4	Addressing 1.NS.2, 1.NS.4, 1.OA.1, 1.OA.2, 1.OA.3
Math Practice Standards	MP 3, 6	-	MP 3, 6, 7	-
Lesson Purpose	The purpose of this lesson is for students to add tens or ones to	The purpose of this lesson is for students to add 2 two-digit	The purpose of this lesson is for students to add 2 two-digit	The purpose of this lesson is for students to practice adding within

	two-digit numbers, without composing a ten, in a way that makes sense to them.	numbers, without composing a ten, using methods based on place value and make sense of equations that represent addition methods.	numbers, without composing a ten, using methods based on place value and to write equations to represent addition methods.	100 without composing a ten.
Teacher Facing Learning Goals	Add tens or ones to two-digit numbers, without composing a ten, in a way that makes sense to them.	<ul style="list-style-type: none"> • Add 2 two-digit numbers, without composing a ten, using methods based on place value. • Make sense of equations that represent addition methods. 	<ul style="list-style-type: none"> • Add 2 two-digit numbers, without composing a ten, using methods based on place value. • Write equations to represent addition methods. 	Add within 100, without composing a ten.
Vocabulary Focus	Two-digit, equation, spinner	Value, equation, method, two-digit	Value, expression, equation, two-digit	-
Lesson Structure	<p>Warm-up: 10 minutes How Many Do You See: 10-frames</p> <p>Activity 1: 20 minutes What Did I Add?</p> <p>Activity 2: 15 minutes Add Tens or Ones</p> <p>Synthesis: 10 minutes</p> <p>Cooldown: 5 minutes</p>	<p>Warm-up: 10 minutes Choral Count: Count Back From 70</p> <p>Activity 1: 15 minutes Find the Value</p> <p>Activity 2: 10 minutes Elena and Andre Represent $63 + 25$</p> <p>Activity 3: 15 minutes Introduce Five in a Row, Add Within 100 without Composing</p> <p>Synthesis: 10 minutes</p>	<p>Warm-up: 10 minutes Number Talk: Add More Tens</p> <p>Activity 1: 15 minutes Lin and Han Add</p> <p>Activity 2: 20 minutes I Heard You Say</p> <p>Synthesis: 10 minutes</p> <p>Cooldown: 5 minutes</p>	<p>Warm-up: 10 minutes Notice and Wonder: Marbles</p> <p>Activity 1: 15 minutes Introduce Number Puzzles, Within 100 without Composing</p> <p>Activity 2: 25 minutes Centers: Choice Time</p> <p>Synthesis: 10 minutes</p>
Material to Gather	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles • Number cards 0–10 • Paper clips (2-inch) 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles • Paper clips • Two-color counters 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Materials from previous centers
Lesson Materials/ Resources	<p>Lesson 1 Slides</p> <p>Teacher Materials</p> <p>Student Pages</p> <p>Activity 1:</p> <ul style="list-style-type: none"> • Give each group a set of Number Cards 0-10 and a paper clip. Give students access to connecting cubes in towers of 10 and singles. 	<p>Lesson 2 Slides</p> <p>Teacher Materials</p> <p>Student Pages</p> <p>Activity 1 and 2:</p> <ul style="list-style-type: none"> • Give students access to connecting cubes in towers of 10 and singles. 	<p>Lesson 3 Slides</p> <p>Teacher Materials</p> <p>Student Pages</p> <p>Activity 1 and 2:</p> <ul style="list-style-type: none"> • Give students access to connecting cubes in towers of 10 and singles. 	<p>Lesson 4 Slides</p> <p>Teacher Materials</p> <p>Student Pages</p> <p>Activity 1:</p> <ul style="list-style-type: none"> • Each group of 2 needs a set of Number Puzzles Digit • Cards and a Number Puzzles Addition and Subtraction Stage

	<ul style="list-style-type: none"> “Remove the 0, 6, 7, 8, 9 and 10 from the number cards.” <p>Activity 2:</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles. <p>Cooldown: Add a One-digit and a Two-digit Number</p>	<p>Activity 3:</p> <ul style="list-style-type: none"> Give each group two paper clips, a Five in a Row Addition and Subtraction Stage 5 Gameboard, and two-color counters. <p>Checkpoint A</p>	<p>Cooldown: Find the Value of 14 + 53</p>	<p>3 Gameboard</p> <p>Activity 2:</p> <ul style="list-style-type: none"> Centers - see below
Assessment	<p>Formative Assessment Strategies: observation, questioning, student discourse See Section A Checkpoint Assessment - (Monitoring Sheet), Section A Checkpoint Teacher’s Guide</p>			
				Section A Practice Problems
Centers Materials	-	-	-	Number Puzzles, Stages 1-3 Five in a Row, Stages 1-5 Greatest of Them All, Stage 1

Making Meaning:

[Lesson 1: Add Tens or Ones:](#) Activity 1, 2, & Lesson Synthesis

- The purpose of this lesson is for students to add tens or ones to two-digit numbers, without composing a ten, in a way that makes sense to them.
- [Teacher presentation materials](#)
- [Slides](#)

[Lesson 2: How Did You Add?](#)

- The purpose of this lesson is for students to add 2 two-digit numbers, without composing a ten, using methods based on place value and make sense of equations that represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

Checkpoints: These documents for the above lessons provide teachers with a template for collecting data and information on student understanding of skills and concepts.

[Checkpoint A Teacher Instructions](#)

[Checkpoint A Table](#)

Investigate:

Lesson 3: Add It, Explain It: Warm-Up and Activity 1

- The purpose of this lesson is for students to add 2 two-digit numbers, without composing a ten, using methods based on place value and to write equations to represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

The purpose of this activity is for students to make sense of the first step of addition methods and then finish finding the sum. They write equations to represent their thinking.

Create and Produce:

Lesson 3: Add It, Explain It: Activity 2 & Lesson Synthesis

- The purpose of this lesson is for students to add 2 two-digit numbers, without composing a ten, using methods based on place value and to write equations to represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

The purpose of this activity is for students to find the sum of 2 two-digit numbers and represent their thinking with equations. Read the following task statement:

Find the value of $23 + 47$ using Lin’s or Han’s method. Write equations to represent your thinking.

Give students 5 minutes of independent work time to complete the task.

Monitor for students using different methods in order to make partnerships of students who found the value in different ways.

Communicate and Present:

Partner students together who used different methods or who found values in different ways.

“Now you are going to explain to your partner how you found the value of the sum. Use your drawings or connecting cubes to explain your steps. Also explain how the equations you wrote match each step you took.”

Reflection:

Activity 2, Lesson Synthesis

“What was most difficult about restating your partner’s thinking? What helped you make sense of your partner’s thinking and restate it?”

<p>Students will orally explain their steps to a partner and how the equations they wrote match their steps. Partners listen and then practice restating what they heard their partner say. Restating what a partner has said helps ensure students listen for understanding as their partner explains their thinking. Students have multiple opportunities to explain their thinking and the thinking of a partner and revise their language for clarity.</p>	
<p>Additional Learning:</p> <p><u>Lesson 4: Center Day 1</u></p> <ul style="list-style-type: none"> • The purpose of this lesson is for students to practice adding within 100 without composing a ten. • <u>Teacher presentation materials</u> • <u>Slides</u> 	
<p>Notes: Follow all lessons in numerical order.</p>	<p>Complete File with Resources and Task:</p> <p><u>Task-Based Learning Plan Format for Unit 5 Topic 1</u></p>

Topic # 2 (Section B)

Topic Name: Section B - Make a Ten: Add One- and Two- Digit Numbers

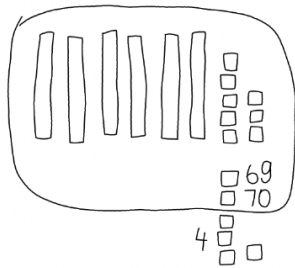
Duration:

Recommended: 4 days

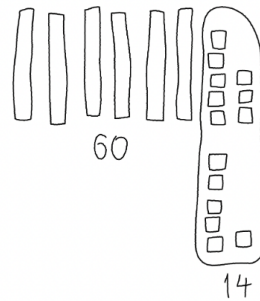
Topic Description: In this section, students learn that sometimes when adding two-digit numbers within 100, it is necessary to compose a ten from ones. They draw on the idea of making a ten, which they learned when adding ones and when adding numbers within 20.

Students may not initially consider composing a new unit of ten when adding numbers. They may count on by ones, or count on by place (count on by tens and by ones separately). They may also count on to the next ten, but not connect their counting to a new unit of ten.

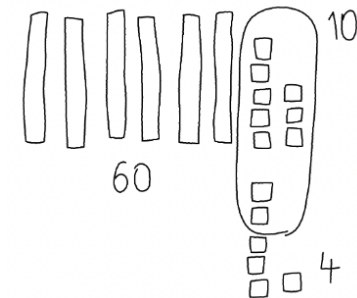
Counting on:
68, 69, 70, 74



Adding ones and ones, then tens



Adding ones and ones,
composing a ten explicitly



Other students may see that they can group 10 ones to make a new unit of ten (as they did when counting collections). They may show this awareness by making a new tower of 10 with connecting cubes or by marking or labeling a group of 10 in their base-ten drawings.

To deepen their understanding of place value and properties of operations, give students opportunities to compare and connect different methods, as well as to connect their method to representations that make sense to them (not limited to connecting cubes or base-ten drawings).

Students who rely on using known facts to add within 20 may apply the same method when adding within 100. They should not be required to use cubes or create drawings. However, encourage them to use representations, including equations, as they explain to others how their method works.

Section Learning Goals

<ul style="list-style-type: none"> ● Add a one-digit and a two-digit number within 100 with composing a ten. ● Use equations to represent addition methods. 	
<p>Competencies Addressed: 1.NBT.C.4, 1.OA.C.6, 1.OA.D.8</p> <p>Understanding and Applying Number Systems Indicator 4: I can use my understanding of place value and properties of operations to add.</p> <p>Operations and Algebraic Thinking Indicator 1: I can add within 20 using strategies.</p>	<p>Essential Question and Enduring Understanding Addressed in this Topic:</p> <p>Essential Question How can I represent and solve addition problems within 100?</p> <p>Enduring Understanding When adding two-digit numbers, students can add like units: tens and tens, and ones and ones. Students learn that sometimes when adding two-digit numbers within 100, it is necessary to compose a ten from ones. They draw on the idea of making a ten, which they learned when adding ones and when adding numbers within 20. Students see that no matter which order they use to combine parts of the addends, the sum remains the same.</p>
<p>In this Topic, students will know:</p> <ul style="list-style-type: none"> ● Place Value Understanding ● Addition Within 100 	<p>Topic Vocabulary:</p> <p>Academic vocabulary</p>
<p>In this Topic, students will be able to:</p> <ul style="list-style-type: none"> ● Add a one-digit and a two-digit number within 100 with composing a ten. ● Use equations to represent addition method 	<p>Plan for Student Reflection:</p> <p>Student Journal Prompts and Reflection Practices</p>
	<p>Plan for Teacher Reflection:</p>

Lesson 5: Reflect on who participated in math class today. What assumptions are you making about those who did not participate? How can you leverage each of your students' ideas to support them in being seen and heard in tomorrow's math class?

Lesson 6: How did the work of Activity 1 lay the foundation for students to be successful in the next activity? What do students need to be fluent with in order to use the method presented in Activity 2?

Lesson 7: At what points during the lesson did you learn the most about your students' thinking? How did you use what you learned during this lesson and how will you use what you learned in tomorrow's lesson?

Lesson 8: How are students working together during center time? Are all students getting the opportunity to participate in the mathematics?

Utilize additional strategies for Teacher Reflection:

- Reviewing formative assessments
- Developing scaffolds
- Collaborative scoring
- PLCs
- Planning for small groups

Topic 2 Task Development

Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the [Learning Cycle Model](#) that drives teaching and learning in Naugatuck Public Schools.

Task Title: Topic 2 - Make a Ten: Add One- and Two-digit Numbers	Grade Level and Unit: Grade 1, Unit 5
<p>Description of Task: Students find an unknown addend that fits a specific rule for each expression. Some expressions have more than one number that fits the rule. As students complete each expression, they look for and make use of structure (MP7) as they think about whether or not the ones in the two numbers will combine to make a new 10.</p> <p>During the activity synthesis, students look at different one-digit numbers that would make or not make a new ten when added to 16. In the lesson synthesis, students share their answers to the last problem in the task which encourages them to make generalizations.</p>	<p>Purpose of Task: The purpose of this task is for students to deepen their understanding of place value and properties of operations when adding one-digit numbers and two-digit numbers.</p>
<p>Background of Students/Learning Progression: In previous lessons, students added one-digit and two-digit numbers with composing a ten. They discussed methods that involved counting on, adding ones and ones then tens, and decomposing the one-digit number to make a new ten with the two-digit number.</p>	<p>Ensure all competencies are addressed in the task:</p> <ul style="list-style-type: none"><input type="checkbox"/> Yes, all competencies are addressed<input type="checkbox"/> No - Task needs modification
<p>Getting Started:</p> <p>Lesson 5: Make a Ten: Warm-Up - How Many Do You See: Many 10-frames</p> <ul style="list-style-type: none">• The purpose of this lesson is for students to add a two-digit number and a one-digit number within 100, with composing a ten, in a way that makes sense to them.• Teacher presentation materials• Slides <p>The purpose of this How Many Do You See is for students to subitize or use grouping strategies to describe the images they see. The images include 10-frames to elicit students' work when adding within 20 and encourage students to think about composing a ten by counting on, which will be the focus of activities later in the lesson.</p>	

Launch:

- Groups of 2
- “How many do you see? How do you see them?”
- Flash the image.
- 30 seconds: quiet think time

Activity:

- Display the image.
- “Discuss your thinking with your partner.”
- 1 minute: partner discussion
- Record responses.
- Repeat for each image.

Sample responses:

- 40: I see three 10-frames filled, so that is 30. Then I see 5 red counters and 5 yellow counters. $30 + 5 + 5 = 40$.
- 50: I see one more 10-frame filled, so that is $40 + 10 = 50$.
- 53: I see four 10-frames filled with red and that is 40. I see one 10-frame filled with 5 red and 5 yellow, so that is another 10. $40 + 10 = 50$. There are 3 left so $50 + 3 = 53$.

Synthesis: “How are the second and third images the same and different?” (In the third image all of the 10-frames are full, but in the second they are not.)

Learning Cycle Model Process

Section B

IM Lesson	L5: Make a Ten	L6: Make a Ten and Make Sense of Equations	L7: Does it Make a New Ten?	L8: Center Day 2
Learning Cycle Model	Getting Started & Making Meaning	Making Meaning	Investigate & Create and Produce	Additional Learning
Naugatuck Math Competency	Addressing 1.NS.4	Addressing 1.NS.4, 1.OA.1, 1.OA.2	Addressing 1.NS.4	Addressing 1.NS.4, 1.OA.1, 1.OA.2
Math Practice Standards	MP 7, 8	MP 3, 5	MP 7	MP 1, 4, 8
Lesson Purpose	The purpose of this lesson is for students to add a two-digit number	The purpose of this lesson is for students to add one-digit and	The purpose of this lesson is for students to add one-digit numbers	The purpose of this lesson is for students to practice adding within

	and a one-digit number within 100, with composing a ten, in a way that makes sense to them.	two-digit numbers, with composing a ten, using place value understanding and the properties of operations. Students also make sense of equations that represent addition methods.	and two-digit numbers, and recognize when a new ten will be composed. They write equations to represent their addition methods.	100.
Teacher Facing Learning Goals	Add a one-digit and a two-digit number, with composing a ten, in a way that makes sense to them.	<ul style="list-style-type: none"> • Add a one-digit and a two-digit number, with composing a ten, using place value understanding and the properties of operations. • Make sense of equations that represent addition methods. 	<ul style="list-style-type: none"> • Add a one-digit and a two-digit number and recognize when a new ten will be composed. • Write equations that represent addition methods. 	Add within 100.
Vocabulary Focus	Value, equation, two-digit, tens	Value, expression, unknown, equation, match, two-digit	Expression, equation, value, method	-
Lesson Structure	<p>Warm-up: 10 minutes How Many Do You See: Many 10-frames</p> <p>Activity 1: 20 minutes Choose a Way to Add</p> <p>Activity 2: 20 minutes Add 'Em Up Partner</p> <p>Activity 3: 15 minutes Tyler's Teacher</p> <p>Synthesis: 10 minutes</p>	<p>Warm-up: 10 minutes Number Talk: Add Within 20</p> <p>Activity 1: 10 minutes How Many to the Next Ten?</p> <p>Activity 2: 15 minutes Elena and Andre Add</p> <p>Activity 3: 15 minutes Introduce Target Numbers, Add Ones</p> <p>Synthesis: 10 minutes</p>	<p>Warm-up: 10 minutes Which One Doesn't Belong: Expressions</p> <p>Activity 1: 15 minutes Ten or Not a Ten?</p> <p>Activity 2: 20 minutes Missing Numbers</p> <p>Synthesis: 10 minutes</p> <p>Cooldown: 5 minutes</p>	<p>Warm-up: 10 minutes Number Talk: Add Within 100</p> <p>Activity 1: 15 minutes Introduce Target Numbers, Add Tens or Ones</p> <p>Activity 2: 25 minutes Centers: Choice Time</p> <p>Activity 3: 10 minutes Addition Stories</p> <p>Synthesis: 10 minutes</p>
Material to Gather	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles • Number cards 0–10 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and singles • Materials from previous centers • Number cards 0–10
Lesson Materials/Resources	Lesson 5 Slides Teacher Materials	Lesson 6 Slides Teacher Materials	Lesson 7 Slides Teacher Materials	Lesson 8 Slides Teacher Materials

	<p>Student Pages</p> <p>Activity 1:</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles. <p>Activity 2:</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles. Give half of the students one-digit number cards and half of the students two-digit number cards from Add Em' Up Cards (2-digit and 1-digit numbers to 100) cards. <p>Activity 3: Optional</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles. <p>Checkpoint B</p>	<p>Student Pages</p> <p>Activity 1 and 2:</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles. <p>Activity 3:</p> <ul style="list-style-type: none"> Give each group a set of Number Cards 0-10, two Target Numbers Stage 1 Recording Sheets, and access to connecting cubes in towers of 10 and singles <p>Checkpoint B</p>	<p>Student Pages</p> <p>Activity 1 and 2:</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles. <p>Cooldown: Keep On Adding</p>	<p>Student Pages</p> <p>Materials to Copy</p> <ul style="list-style-type: none"> <p>Activity 1::</p> <ul style="list-style-type: none"> Give each group a set of Number Cards 0-10, two Target Numbers Stage 2 Recording Sheet, and access to connecting cubes in towers of 10 and singles. “Take out all of the cards that show 0 or 10.” <p>Activity 2: Centers - see below</p> <p>Activity 3: Optional</p> <ul style="list-style-type: none"> Give students access to connecting cubes in towers of 10 and singles.
Assessment	<p align="center">Formative Assessment Strategies: observation, questioning, student discourse See Section B Checkpoint Assessment - (Monitoring Sheet), Section B Checkpoint Teacher’s Guide</p>			
				<p>Section B Practice Problems</p>
Centers Materials				<p>Target Numbers, Stages 1 and 2</p> <p>Number Puzzles, Stages 1-3</p> <p>Five in a Row, Stages 1-5</p>
<p>Making Meaning:</p>				

[Lesson 5: Make a Ten:](#) Activity 1, 2, 3, & Lesson Synthesis

- The purpose of this lesson is for students to add a two-digit number and a one-digit number within 100, with composing a ten, in a way that makes sense to them.
- [Teacher presentation materials](#)
- [Slides](#)

[Lesson 6: Make a Ten and Make Sense of Equations](#)

- The purpose of this lesson is for students to add one-digit and two-digit numbers, with composing a ten, using place value understanding and the properties of operations. Students also make sense of equations that represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

Checkpoints: These documents for the above lessons provide teachers with a template for collecting data and information on student understanding of skills and concepts.

[Checkpoint B Teacher Instructions](#)

[Checkpoint B Table](#)

Investigate:

[Lesson 7: Does it Make a New Ten?:](#) Warm-Up and Activity 1

- The purpose of this lesson is for students to add one-digit numbers and two-digit numbers, and recognize when a new ten will be composed. They write equations to represent their addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

Create and Produce:

[Lesson 7: Does it Make a New Ten?:](#) Activity 2

- The purpose of this lesson is for students to add one-digit numbers and two-digit numbers, and recognize when a new ten will be composed. They write equations to represent their addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

The purpose of this activity is for students to deepen their understanding of place value and properties of operations when adding one-digit numbers and two-digit numbers. Students find an unknown addend that fits a specific rule for each expression. Some expressions have more than one number that fits the rule. As students complete each expression, they look for and make use of structure (MP7) as they think about whether or not the ones in the two numbers will combine to make a new 10.

To launch the activity, students are placed in groups of 2 and given access to connecting cubes in towers of 10 and singles. The task statement is displayed ($14 + \underline{\quad}$) while the following is said aloud by the teacher:

“Lin wrote a one-digit number where the smudge is. She said you can not make a new ten when you find the value of the sum. What number could she have written?”

Provide students 30 seconds of think time and 1 minute of partner discussion. Then pose the question, “Are there other numbers she could have written?” Record responses on chart paper.

For the activity, students are given 4 new tasks with a missing addend and a criteria in which a new ten can or can not be made. After the 4 tasks, students are asked, “How do you know whether or not you can make a new ten when you are finding the value of a sum?” Students begin with 5 minutes of independent work time followed by 5 minutes of partner discussion while the teacher monitors students with a range of responses for the last two questions.

Communicate and Present:

During the activity synthesis, students look at different one-digit numbers that would make or not make a new ten when added to 16. In the lesson synthesis, students share their answers to the last problem in the task which encourages them to make generalizations.

- Display $8 + \underline{\quad}$
- “What two-digit numbers can she add that will make a new ten?” (12, 35, 49)
- “What two-digit numbers can she add that will not make a new ten?” (11, 30, 41)
- “What do you notice about each list of numbers?” (If she doesn't make a new ten, the number can only have 0 or 1 in the ones place, but it can have any number in the tens place. If she does make a new ten, the number can have 2, 3, 4, 5, 6, 7, 8, or 9 in the ones place.)

Reflection:

Lesson 7, Activity Synthesis:

“Today we looked at addition expressions and determined if you could make a new ten or not. How does knowing that you might have to make a new ten help you decide what method to use?” (If I know I have to make a new ten, I do that first. Then I add the rest of the ones. I add the ones and ones then the tens either way so it doesn't change my method.)

Additional Learning:

[Lesson 8: Center Day 2](#)

- The purpose of this lesson is for students to practice adding within 100.
- [Teacher presentation materials](#)
- [Slides](#)

Notes: Follow all lessons in numerical order.

Complete File with Resources and Task:

[Task-Based Learning Plan Format for Unit 5 Topic 2](#)

Topic # 3 (Section C)

Topic Name: Section C - Make a Ten: Add Within 100

Duration:

Recommended: 6 days

Topic Description: In this section, students apply what they learned about adding one- and two-digit numbers to add any numbers within 100—with and without composing a ten. They apply the associative and commutative properties as they count on, add tens and tens, and add ones and ones. Students see that no matter which order they use to combine parts of the addends, the sum remains the same.

They continue to use, interpret, and connect different methods and representations (including equations) that show a new unit of ten being composed from 10 ones.

Explain how Jada, Kiran, and Tyler each find the value of $37 + 25$.

Jada's way

$$30 + 20 = 50$$

$$7 + 5 = 12$$

$$50 + 12 = 62$$

Kiran's way

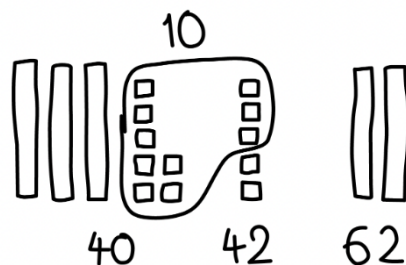
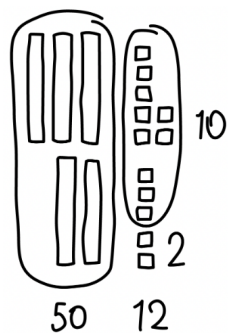
$$37 + 3 + 2 = 42$$

$$42 + 20 = 62$$

Tyler's way

$$37 + 20 = 57$$

$$57 + 3 + 2 = 62$$



Section Learning Goals

- Add 2 two-digit numbers within 100, with composing a ten.
- Use equations to represent addition methods.

Competencies Addressed:

1.NBT.A.1, 1.NBT.B, 1.NBT.B.3, 1.NBT.C.4, 1.NBT.C.5, 1.NBT.C.6, 1.OA.C.5, 1.OA.C.6, 1.OA.D.7, 1.OA.D.8

Understanding and Applying Number System

Indicator 2: I can count, read, and write whole numbers

Indicator 3: I can apply my understanding of place value to compare whole numbers.

Indicator 4: I can use my understanding of place value and properties of operations to add.

Operations and Algebraic Thinking

Indicator 1: I can add within 20 using strategies.

Essential Question and Enduring Understanding Addressed in this Topic:

Essential Question

How can I represent and solve addition problems within 100?

Enduring Understanding

When adding two-digit numbers, students can add like units: tens and tens, and ones and ones. Students learn that sometimes when adding two-digit numbers within 100, it is necessary to compose a ten from ones. They draw on the idea of making a ten, which they learned when adding ones and when adding numbers within 20. Students see that no matter which order they use to combine parts of the addends, the sum remains the same.

<p>In this Topic, students will know:</p> <ul style="list-style-type: none"> ● Counting ● Reading and Writing Whole NUmbers to 99 ● Addition within 100 ● Add within 20 	<p>Topic Vocabulary:</p> <p>Academic vocabulary</p>
<p>In this Topic, students will be able to:</p> <ul style="list-style-type: none"> ● Add 2 two-digit numbers within 100, with composing a ten. ● Use equations to represent addition methods. 	<p>Plan for Student Reflection:</p> <p>Student Journal Prompts and Reflection Practices</p> <hr/> <p>Plan for Teacher Reflection:</p> <p>Lesson 9: How effective were your questions in supporting students’ thinking today? What did students say or do that showed they were effective?</p> <p>Lesson 10: In what ways does the work of this lesson lay the foundation for student understanding of the standard algorithm for addition, which will be used in later grades?</p> <p>Lesson 11: How did your students represent their thinking today? How might you support them in creating more efficient representations?</p> <p>Lesson 12: As you finish up this unit, reflect on the norms and activities that have supported each student in learning math. How have you seen each student grow as a young mathematician throughout this work? How have you seen yourself grow as a teacher? What will you continue to do and what will you improve on in Unit 6?</p> <p>Lesson 13: As students worked in centers today,</p>

whose ideas were heard, valued, and accepted? How can you adjust the group structure for your next center day, to ensure each student's ideas are heard?

Lesson 14: Reflect on a time your thinking changed about something in class recently. How will you alter your teaching practice to incorporate your new understanding?

Utilize additional strategies for Teacher Reflection:

- Reviewing formative assessments
- Developing scaffolds
- Collaborative scoring
- PLCs
- Planning for small groups

Topic 3 Task Development

Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the [Learning Cycle Model](#) that drives teaching and learning in Naugatuck Public Schools.

Task Title: Topic 3 - Make a Ten: Add Within 100	Grade Level and Unit: Grade 1, Unit 4
Description of Task: Students use place value reasoning to create expressions with the smallest and largest values and expressions that may or may not require composing a ten when adding using methods based on place value (MP7). In the synthesis, students explain how they reasoned about whether or not a new ten could be composed just by looking at the addends (MP3). Although some students may complete the activity without finding any sums, others may need to find partial sums or complete sums in order to explain what happens when adding.	Purpose of Task: The purpose of this task is for students to use what they know about the base-ten structure of numbers to create different expressions.
Background of Students/Learning Progression: In previous lessons, students found the value of sums within 100 using methods based on place value and the properties of operations, including adding tens and tens and ones and ones, and adding on by place.	Ensure all competencies are addressed in the task: <input type="checkbox"/> Yes, all competencies are addressed <input type="checkbox"/> No - Task needs modification
Getting Started: Lesson 9: Add 2 Two-Digit Numbers: Warm-Up - Number Talk: Make a Ten <ul style="list-style-type: none">• The purpose of this lesson is for students to add 2 two-digit numbers within 100 in any way that makes sense to them, including composing a ten.• Teacher presentation materials• Slides <p>The purpose of this Number Talk is to elicit strategies and understandings students have for adding within 100. These understandings help students develop fluency and will be helpful later in this lesson when students need to be able to add 2 two-digit numbers within 100 with composing a ten. When students describe methods based on making a ten, adding tens and tens and ones and ones, and using known or previously found sums, they are looking for and making use of the base-ten structure and properties of operations (MP7).</p> <p>Launch:</p> <ul style="list-style-type: none">• Display one expression.• “Give me a signal when you have an answer and can explain how you got it.”	

- 1 minute: quiet think time

Activity:

- Record answers and strategy.
- Keep expressions and work displayed.
- Repeat with each expression.

Possible Student Response:

- 40: I counted on, 38... 39, 40.
- 43: I know that $40 + 3 = 43$.
- 43: First I took 2 from the 5 and added it to 38 to get to 40. Then I still have 3 more to add and I know that $40 + 3 = 43$.
- 53: From the last problem I know that $38 + 5 = 43$. 15 is 10 more than 5 so I need to add 10 to 43. $43 + 10 = 53$.

Synthesis:

- “Who can restate _____ 's reasoning in a different way?”
- “How could the expressions $38 + 2$ and $40 + 3$ help you to find the value of $38 + 5$?” (The first one shows us adding part of 5 to get to 40 and then adding the rest in the second expression.)

Learning Cycle Model Process

Section C

IM Lesson	L9: Add 2 Two-Digit Numbers	L10: Tens and Tens, Ones and Ones	L11: How Did You Do That?	L12: Add It Up	L13: Center Day 3	L14: Food Drive
Learning Cycle Model	Getting Started & Making Meaning	Making Meaning	Investigate	Investigate & Create and Produce	Additional Learning	Additional Learning
Naugatuck Math Competency	Addressing 1.NS.4	Addressing 1.NS.4, 1.OA.1, 1.OA.2	Addressing 1.NS.4, 1.OA.1, 1.OA.2	Addressing 1.NS.4	Addressing 1.NS.2, 1.NS.3, 1.NS.4, 1.OA.1, 1.OA.2	Addressing 1.NS.4, 1.NS.5
Math Practice Standards	MP 5, 7	MP 7	MP 2	MP 2, 3, 7		
Lesson Purpose	The purpose of this lesson is for students to add 2 two-digit numbers within 100 in	The purpose of this lesson is for students to add 2 two-digit numbers using	The purpose of this lesson is for students to add 2 two-digit numbers, with	The purpose of this lesson is for students to add 2 two-digit numbers, with	The purpose of this lesson is for students to practice adding 2 two-digit numbers	The purpose of this lesson is for students to apply their understanding of

	any way that makes sense to them, including composing a ten.	methods based on place value.	composing a ten, using methods based on place value and properties of operation and make sense of equations that represent addition methods.	composing a ten, using methods based on place value and properties of operations. Students write equations to represent addition methods.	with composing a ten.	adding two-digit numbers to a real-world context.
Teacher Facing Learning Goals	Add 2 two-digit numbers within 100, with composing a ten, in a way that makes sense to them.	Add two-digit numbers by adding tens and tens and ones and ones.	<ul style="list-style-type: none"> • Add 2 two-digit numbers using methods based on place value and properties of operations. • Make sense of equations that represent addition methods. 	<ul style="list-style-type: none"> • Add 2 two-digit numbers using methods based on place value and properties of operations. • Write equations to represent addition methods. 	Add numbers within 100.	Add 2 two-digit numbers within 100 with composing a ten, in a way that makes sense to them.
Vocabulary Focus	Value, expression, sum, method	Value, methods, representation, expression, equation, method	Statement, value, expression, method	Expression, value, equation, method, sum	-	-
Lesson Structure	<p>Warm-up: 10 minutes Number Talk: Make a Ten</p> <p>Activity 1: 20 minutes How Did You Find the Value?</p> <p>Activity 2: 15 minutes Grab and Add</p> <p>Synthesis: 10 minutes Cooldown: 5 minutes</p>	<p>Warm-up: 10 minutes How Many Do You See: Tens and Ones</p> <p>Activity 1: 10 minutes Priya's Work</p> <p>Activity 2: 15 minutes Finish the Work</p> <p>Activity 3: 15 minutes Introduce Number Puzzles, Within 100 with Composing</p> <p>Synthesis: 10 minutes</p>	<p>Warm-up: 10 minutes True or False: Add to a Two-digit Number</p> <p>Activity 1: 15 minutes How Much Litter?</p> <p>Activity 2: 20 minutes It's Your Turn to Add</p> <p>Synthesis: 10 minutes Cooldown: 5 minutes</p>	<p>Warm-up: 10 minutes Number Talk: Make a Ten</p> <p>Activity 1: 15 minutes Add Two-digit Numbers Within 100</p> <p>Activity 2: 20 minutes Reason About Addition</p> <p>Activity 3: 20 minutes Ways We Volunteer</p> <p>Synthesis: 10 minutes Cooldown: 5 minutes</p>	<p>Warm-up: 10 minutes Choral Count: Count Back from 100</p> <p>Activity 1: 20 minutes Introduce Target Numbers, Add Two-Digit Numbers</p> <p>Activity 2: 20 minutes Introduce Five in a Row, Add within 100 with Composing</p> <p>Synthesis: 10 minutes</p>	<p>Warm-up: 10 minutes Estimation</p> <p>Exploration: Food Drive</p> <p>Activity 1: 20 minutes Cans for the Food Drive</p> <p>Activity 2: 20 minutes Boxes of Cans</p> <p>Synthesis: 10 minutes</p>
Materials to Gather	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and 	<p>Materials to Gather</p> <ul style="list-style-type: none"> • Connecting cubes in towers of 10 and

	singles	singles ● Materials from previous centers	singles ● Tools for creating a visual display	singles	singles ● Materials from previous centers ● Number cubes ● Paper clips ● Two-color counters	singles
Lesson Materials/ Resources	Lesson 9 Slides Teacher Materials Student Pages Activity 1 and 2: <ul style="list-style-type: none"> ● Give students access to connecting cubes in towers of 10 and singles. Cooldown: Find the Value	Lesson 10 Slides Teacher Materials Student Pages Activity 1: <ul style="list-style-type: none"> ● Give students access to connecting cubes in towers of 10 and singles. Activity 2: <ul style="list-style-type: none"> ● Create two separate posters that show base-ten drawings of 34 and 57. Leave space to write equations underneath the drawings. Activity 3: <ul style="list-style-type: none"> ● Give each group a set of Number Puzzles Digit Cards and Number Puzzles Addition Stage 4 Gameboards. Checkpoint C	Lesson 11 Slides Teacher Materials Student Pages Activity 1: <ul style="list-style-type: none"> ● Give students access to connecting cubes in towers of 10 and singles. Activity 2: <ul style="list-style-type: none"> ● Give each group tools for creating a visual display and access to connecting cubes in towers of 10 and singles. Cooldown: Which Method Do You Like?	Lesson 12 Slides Teacher Materials Student Pages Activity 1 and 2: <ul style="list-style-type: none"> ● Give students access to connecting cubes in towers of 10 and singles. Activity 3: Optional <ul style="list-style-type: none"> ● Give students access to connecting cubes in towers of 10 and singles. Cooldown: Add Within 100	Lesson 13 Slides Teacher Materials Student Pages Activity 1: <ul style="list-style-type: none"> ● Give each group a Target Numbers Stage 3 Recording Sheet Activity 2: <ul style="list-style-type: none"> ● Give each group a Five in a Row Addition and Subtraction Stage 6 Gameboard 	Lesson 14 Slides Teacher Materials Student Pages Activity 1 and 2: <ul style="list-style-type: none"> ● Give students access to connecting cubes in towers of 10 and singles.

Assessment	Formative Assessment Strategies: observation, questioning, student discourse See Section C Checkpoint Assessment - (Monitoring Sheet) , Section C Checkpoint Teacher's Guide Unit 5 Assessment , Unit 5 Assessment Teacher Guide					
						Section C Practice Problems
Centers Materials					Target Numbers, Stages 1-2 Number Puzzles, Stages 1-4 Mystery Number, Stage 1 Five in a Row, Stages 1-6 Get Your Numbers in Order, Stage 1 Grab and Count, Stage 2	

Making Meaning:

[Lesson 9: Add 2 Two-Digit Numbers:](#) Activities 1, 2, & Lesson Synthesis

- The purpose of this lesson is for students to add 2 two-digit numbers within 100 in any way that makes sense to them, including composing a ten.
- [Teacher presentation materials](#)
- [Slides](#)

[Lesson 10: Tens and Tens, Ones and Ones](#)

- The purpose of this lesson is for students to add 2 two-digit numbers using methods based on place value.
- [Teacher presentation materials](#)
- [Slides](#)

Checkpoints: These documents for the above lessons provide teachers with a template for collecting data and information on student understanding of skills and concepts.

[Checkpoint C Teacher Instructions](#)

[Checkpoint C Table](#)

Investigate:

[Lesson 11: How Did You Do That?](#)

- The purpose of this lesson is for students to add 2 two-digit numbers, with composing a ten, using methods based on place value and properties of operation and make sense of equations that represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

[Lesson 12: Add It Up:](#) Warm-up and Activity 1

- The purpose of this lesson is for students to add 2 two-digit numbers, with composing a ten, using methods based on place value and properties of operations. Students write equations to represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

Create and Produce:

[Lesson 12: Add It Up:](#) Activity 2

- The purpose of this lesson is for students to add 2 two-digit numbers, with composing a ten, using methods based on place value and properties of operations. Students write equations to represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

The purpose of this activity is for students to use what they know about the base-ten structure of numbers to create different expressions. Students use place value reasoning to create expressions with the smallest and largest values and expressions that may or may not require composing a ten when adding using methods based on place value.

Launch:

- Groups of 2
- Give students access to connecting cubes in towers of 10 and singles.

- “Now we are going to use what we know about numbers and addition to think about what will happen when we add different numbers together. You may add the numbers if it is helpful, but you don’t have to.”

Activity:

- 8 minutes: partner work time
- Monitor for students who write expressions without finding the value of the sums and can explain their reasoning.

Communicate and Present:

In the synthesis, students explain how they reasoned about whether or not a new ten could be composed just by looking at the addends (MP3). Although some students may complete the activity without finding any sums, others may need to find partial sums or complete sums in order to explain what happens when adding.

For Activity 2, Lesson Synthesis:

- Invite a previously identified student to share their expression that does not require making a new ten.
- “Are there other numbers you could use? How do you know?”
- Invite a student who found two numbers that make a ten without finding the sums to share.
- “Are there other numbers you could use? How do you know?”

Reflection:

Lesson 12, Activity Synthesis:

“During this unit you learned how to add within 100. What are some things that you learned?” (I can add tens and tens and ones and ones. I can make ten when adding by breaking apart the ones.)

“What are you most proud of learning? What do you still need to work on?”

Additional Learning:

[Lesson 12: Add It Up](#): Activity 3

- The purpose of this lesson is for students to add 2 two-digit numbers, with composing a ten, using methods based on place value and properties of operations. Students write equations to represent addition methods.
- [Teacher presentation materials](#)
- [Slides](#)

[Lesson 13: Center Day 3](#)

- The purpose of this lesson is for students to practice adding 2 two-digit numbers with composing a ten.
- [Teacher presentation materials](#)
- [Slides](#)

[Lesson 14: Food Drive](#)

- The purpose of this lesson is for students to apply their understanding of adding two-digit numbers to a real-world context.
- [Teacher presentation materials](#)
- [Slides](#)

Notes: Follow all lessons in numerical order.

Complete File with Resources and Task:

Task-Based Learning Plan Format for Topic 1