Course Title: Mathematics	Full Year	Required
Course Description: The mathematical work for grade 1 is partitioned into 8 units: 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 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.		
Additional Course Information: The big ideas in grade 1 include: ● 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.	**Core Resources:** **Illustrative Mathematics** **Instructional Routines and Math Language Routines** **Glossary - Student-friendly** **Required Materials** **IM en Español** **Developing a Mathematical Community**	**Are there any attachments at the course level that teachers will need?** 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. Pacing Guide and Dependency Diagrams K-5

Unit 6: Length Measurements Within 120 Units	Duration: 18-19 days

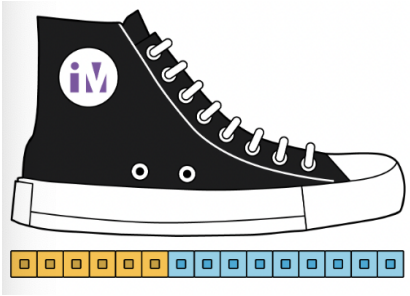
Unit Overview - FOCUS:

Unit Learning Goals

- Students measure length and count up to 120 length units. They solve addition and subtraction story problems with unknowns in all positions.

In this unit, students extend their knowledge of linear measurement while continuing to develop their understanding of operations, algebraic thinking, and place value.

In kindergarten, students identified attributes of objects that can be compared, such as length, weight, and capacity. In this unit, students compare the length of objects by lining them up at their endpoints, and explore ways to compare lengths of two objects that cannot be lined up.



From there, they transition to the idea of iterating length units, or using the same length unit allows us to measure the lengths of objects and to communicate measurements clearly.
Students begin by using the length of a connecting cube as a unit of measurement. Because connecting cubes snap together, students can focus on counting the length of the cubes without worrying about any gaps or overlaps in the units.

Later, students measure with length units that don't connect together, such as paper clips and base-ten cubes (centimeter cubes), but do not refer to formal units of length. They develop precision as they make sure that there are no gaps or overlap in the units used to measure.

Some objects that students measure by iterating small units yield measurements of over 100 length units. Students consider how to count and represent these larger groups of objects—up to 120—with a

Topic Titles:

- Section A: From Direct to Indirect Comparisons
  - Compare the length of objects indirectly.
  - Order objects by length.
- Section B: Measure by Iterating up to 120 Length Units
  - Count groups up to 120 objects and write a number to represent them.
  - Lay length units end-to-end with no gaps or overlaps and count the units to determine the length.
- Section C: All Kinds of Story Problems
  - Solve addition and subtraction story problems with unknowns in all positions.

written number. They use familiar representations (connecting cubes and base-ten drawings) to recognize 100 as 10 tens, but do not consider the unit of a hundred until grade 2.

Later in the unit, students solve problems in various contexts, including measurement. They revisit Compare, Difference Unknown story problems and learn to solve Compare, Bigger Unknown and Smaller Unknown problems about lengths. Next, students are introduced to a new problem type: Take From, Start Unknown. They practice solving all story problems types with unknowns in all positions.

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

In Kindergarten, students identified attributes of objects that can be compared, such as length, weight, and capacity. In this unit, students compare the length of objects by lining them up at their endpoints, and explore ways to compare lengths of two objects that cannot be lined up.

Essential Questions:

- Why do addition and subtraction help me understand objects' relationship to each other?

Enduring Understanding:

- **Adding and subtracting helps us to see the difference in amounts, and compare them.** When students add and subtract within 10, they can use place value to help them understand how quantities can be broken down and manipulated to find what happens when two amounts are joined together or taken apart. These differences in quantities can be compared, and represented and interpreted as categorical data.

What Students Will Know: This should be based on the competencies.

- Compare Lengths
- Order Objects
- Measure objects
- Place Value Understanding
- Read and Write Numbers to 120
- Estimation
- Word Problems
- Measurement
- Addition

What students will do: This should be based on the competencies.

- Compare the length of objects by lining up the endpoints.
- Order three objects by length and use language such as "shorter than" and "longer than" to describe the relationship between the lengths.
- Compare the length of two objects indirectly by using a third object.
- Choose and use objects to compare lengths of other objects indirectly.
- Add within 100.

Unit Specific Vocabulary:
Add
Subtract
Data

Academic vocabulary
compare
shortest
longest
length
estimation
inaccurate

● Subtraction ● Oral Count to 120 ● Counting Objects ● Read and Write Numbers to 120 ● Equations	● Compare addition and subtraction expressions to 20. ● Measure objects in connecting cube side lengths using connecting cube towers. ● Understand that a connecting cube tower with x cubes in it can be described as being “x cubes long.” ● Measure length by iterating same-size length units without gaps or overlaps. ● Measure lengths of objects using different length units. ● Understand that the number associated with a length depends on the chosen length unit. ● Measure length and count the number of length units for quantities up to 110. ● Read numbers to 110. ● Measure length and determine an efficient way to count the number of length units up to 120. ● Read and write numbers to 120. ● Use addition and subtraction to solve story problems about measurement. ● Solve Compare story problems with unknowns in all positions. ● Solve Take From story problems, with unknowns in all positions, in a way that makes sense to them. ● Analyze story problems with unknowns in all positions. ● Match addition and subtraction equations to story problems. ● Use addition and subtraction to solve story problems with unknowns in all positions. ● Write equations to represent story problems. ● Count groups of up to 120 objects and write a number to represent them. ● Measure length by iterating same-size length units without gaps or overlaps.	true false operation place value

	● Read and write numbers to 120. ● Analyze and solve compare story problems with unknowns in all positions. ● Write equations to represent story problems.	
Entry Level Assessment and Connection to Unit: Section A: Pre-Unit Problems Section B: Pre-Unit Problems Section C: Pre-Unit Problems	**Unit Materials, Resources and Technology:** ● **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 6 Assessment** ● **End of Unit 6 Assessment Teacher Guide**	
Opportunities for Interdisciplinary Connections: 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: ● Animals/insects in a habitat ● Objects around the room or in a book (i.e., stickers, hats, etc.) ● Stars In Unit 4 of the Humanities curriculum, students explore the book Rosie Revere, Engineer, where they can use measurement of lines and objects to add and subtract numbers. They can also count the number of objects, sides of a shape, etc. They also read The Oldest Student: How Mary Walker Learned to Read and consider place value as she was 106 years old when she learned to read.		
Any links, attachments and resources: Instructional Routines Document **Family Support Materials Unit 6**	**Planning Ideas:** Components of a Typical IM Lesson What To Know About IM When Planning Where to Find the Mathematical Practices in the Units Assessing the Mathematical Practices	

Topic # 1 (Section A)	Topic Name: Section A - From Direct to Indirect Comparisons	Duration: Recommended: 4 days

Topic Description:

Section Learning Goals

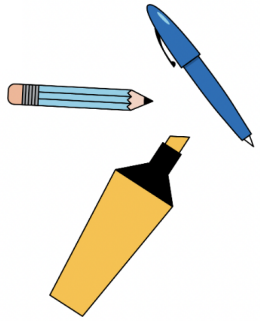
- Compare the lengths of objects indirectly.
- Order objects by length.

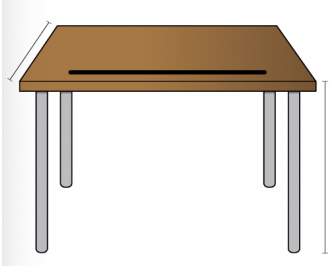
In this section, students transition from direct comparison of lengths to indirect comparison. They reason about how they can compare the length of objects that cannot be easily lined up.

Students begin this transition by ordering the length of three objects directly. Next, they compare two objects by using the length of a third object.

For example, students may compare the pencil and the pen directly by lining them up and see that the pencil is shorter than the pen. Then, they may compare the pen and highlighter directly and see that the highlighter is longer than the pen.
Without comparing the pencil and highlighter directly, students could say that:

- The pencil is shorter than the highlighter because it is shorter than the pen.
- The highlighter is longer than the pencil because it is also longer than the pen.





At the end of the section, students practice using a third object as a tool to compare the length of objects that are very difficult to line up. For example, they use a string to compare the length of one side of a desk and the length of one of its legs.
The work here prepares students to iterate length units to measure objects in the next section.

Competencies Addressed:
1.MD.A.1, 1.NBT.B.3, 1.NBT.C.4, 1.NBT.C.5, 1.OA.C.5, 1.OA.C.6

Understanding and Applying Number Systems
Indicator 2: I can count, read, and write whole numbers.
Indicator 4: I can use my understanding of place value and properties of operations to **add.**
Indicator 5: I can use my understanding of place value to **subtract.**

Operations and Algebraic Thinking
Indicator 1: I can add within 20 using strategies.
Indicator 2: I can subtract within 20 using strategies.
Indicator 3: I can represent and solve problems involving addition and subtraction.

Measurement and Data Investigations
Indicator 1: I can measure and estimate lengths by selecting and using appropriate tools.

Essential Question and Enduring Understanding Addressed in this Topic:

Essential Question
Why do addition and subtraction help me understand objects' relationship to each other?

Enduring Understanding
Adding and subtracting helps us to see the difference in amounts, and compare them.
When students add and subtract within 10, they can use place value to help them understand how quantities can be broken down and manipulated to find what happens when two amounts are joined together or taken apart. These differences in quantities can be compared, and represented and interpreted as categorical data.

In this Topic, students will know:

- Compare Lengths
- Order Objects

Topic Vocabulary:
Academic vocabulary
compare
shortest
longest

In this Topic, students will be able to:

- Compare the length of objects by lining up the endpoints.
- Order three objects by length and use language such as "shorter than" and "longer than" to describe the relationship between the lengths.
- Compare the length of two objects indirectly by using a third object.
- Choose and use objects to compare lengths of other objects indirectly.
- Add within 100.
- Compare addition and subtraction expressions to 20.

Plan for Student Reflection:
Student Journal Prompts and Reflection Practices

Plan for Teacher Reflection:
- Reviewing formative assessments
- Developing scaffolds
- Collaborative scoring
- PLCs
- Planning for small groups
- Teacher Reflection Prompts in Teacher Guides

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.

Task Title: Topic 1 - From Direct to Indirect Comparisons	**Grade Level and Unit: Grade 1, Unit 6**
Description of Task: Students will work in groups of 2 and have access to measuring materials. Students will need to determine if the teacher's desk can fit through the door. Students will need to show their thinking using drawings, numbers, or words. Additional questions are available to provide different tasks to groups.	**Purpose of Task:** The purpose of this task is for students to compare the length of two objects using a third object.
Background of Students/Learning Progression: In Kindergarten, students identified attributes of objects that can be compared, such as length, weight, and capacity.	**Ensure all competencies are addressed in the task:** ▢ Yes, all competencies are addressed ▢ No - Task needs modification

Getting Started:

Lesson 1: Compare Lengths: Warm-Up: Notice and Wonder: Pencils

- The purpose of this lesson is for students to compare the length of objects by lining up the endpoints and order objects by length.
- Teacher presentation materials
- Slides

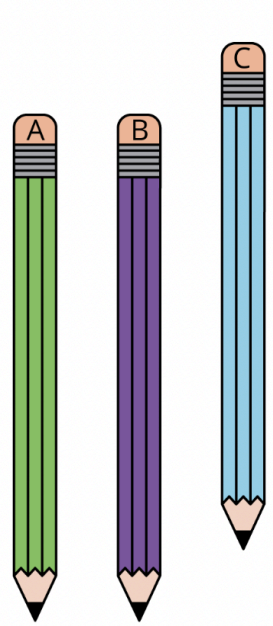
The purpose of this warm-up is to elicit the idea that it is important to line up the endpoints of objects in order to compare their length, which will be useful when students compare lengths in a later activity. While students may notice and wonder many things about these images, comparing the lengths is the important discussion point.

Launch:

- Groups of 2
- Display the image.
- "What do you notice? What do you wonder?"
- 1 minute: quiet think time

Activity:

- "Discuss your thinking with your partner."
- 1 minute: partner discussion
- Share and record responses.



Students may notice:

- There are three pencils that all look the same.
- Pencils A and B are the same length.
- Pencil C is not lined up with the other two.
- Pencil C looks longer.

Students may wonder:

- Why is Pencil C raised up higher than the others?
- Are they all the same length?

Synthesis: "Which pencil do you think is the longest? Why?"
(It looks like they are all the same, but it's hard to know.)

Learning Cycle Model Process

Section A

IM Lesson	**L1: Compare Lengths**	**L2: Compare the Length of Objects Indirectly**	**L3: Choose Objects to Compare Length Indirectly**	**L4: Center Day 1**
Learning Cycle Model	**Getting Started & Making Meaning**	**Making Meaning**	**Investigate & Create and Produce**	**Additional Learning**
Naugatuck Math Competency	**Addressing** 1.MD.1, 1.NS.3, 1.NS.4, 1.NS.5, 1.OA.1, 1.OA.2	**Addressing** 1.MD.1, 1.NS.4	**Addressing** 1.MD.1	**Addressing** 1.NS.3, 1.NS.4, 1.NS.5, 1.OA.1, 1.OA.2
Math Practice Standards	MP 3, 6	MP 4, 6	MP 5, 6	MP 8
Lesson Purpose	The purpose of this lesson is for students to compare the length of objects by lining up the endpoints and order objects by length.	The purpose of this lesson is for students to compare the length of two objects indirectly by comparing each with the length of a third object.	The purpose of this lesson is for students to compare the length of two objects that cannot be compared directly.	The purpose of this lesson is to practice adding and subtracting within 100.

Teacher Facing Learning Goals	• Compare the length of objects by lining up the endpoints. • Order three objects by length and use language such as "shorter than" and "longer than" to describe the relationship between the lengths.	Compare the length of two objects indirectly by using a third object.	Choose and use objects to compare lengths of other objects indirectly.	• Add within 100. • Compare addition and subtraction expressions to 20.
Vocabulary Focus	Longer, shorter, shortest, longest, order, compare, length	Expression, longer, shorter, compare, length	Shorter, tools, compare, length	-
Lesson Structure	**Warm-up: 10 minutes** Notice and Wonder: Pencils **Activity 1: 15 minutes** Is it Longer or Shorter? **Activity 2: 10 minutes** Order Objects **Activity 3: 15 minutes** Centers: Choice Time **Synthesis: 10 minutes**	**Warm-up: 10 minutes** Number Talk: Add within 100 **Activity 1: 15 minutes** Which is Longer? Which is Shorter? **Activity 2: 20 minutes** Measure Your Desk **Synthesis: 10 minutes** **Cooldown: 5 minutes**	**Warm-up: 10 minutes** Notice and Wonder: More Pencils **Activity 1: 15 minutes** Mai and Clare Walk to School **Activity 2: 25 minutes** Will It Fit? **Synthesis: 10 minutes**	**Warm-up: 10 minutes** Number Talk: Use Tens to Add **Activity 1: 20 minutes** Introduce How Close? Center Stage 3 Add to 100 **Activity 2: 20 minutes** Centers: Choice Time **Synthesis: 10 minutes**
Materials to Gather	**Materials to Gather** • Connecting cubes • Materials from a previous activity • Materials from previous centers • Objects of various lengths	**Materials to Gather** • Materials from a previous lesson • Pencils • Scissors • String	**Materials to Gather** • Connecting cubes in towers of 10 and singles • Materials from a previous activity • Pencils • Scissors • String	**Materials to Gather** • Materials from previous centers • Number cards 0–10 **Materials to Copy** • How Close? Stage 3 Recording Sheet

Lesson Materials/ Resources	Lesson 1 Slides
	
	Teacher Materials
	
	Student Pages
	
	Activity 1:
	• Each group of 4 needs 10-12 objects to measure (thin classroom objects like pencils, crayons, paper clips, toothpicks,
		Lesson 2 Slides
		
		Teacher Materials
		
		Student Pages
		
		Activity 1:
		• Each group of 4 students needs access to the materials from the previous lesson and one unsharpened pencil.
			Lesson 3 Slides
			
			Teacher Materials
			
			Student Pages
			
			Activity 1:
			• Each group of 2 needs:
			  • Connecting cubes in singles and towers of 10
			  • 6-inch and 10-inch piece of
				Lesson 4 Slides
				
				Teacher Materials
				
				Student Pages
				
				Activity 1:
				• Introduce Stage 3 of How Close? Center
				• GIve each group a set of Number Cards 0-10 and How

	markers) including connecting cube towers of 3, 5, and 8. **Activity 2:** ● Each group of 4 needs the collection of objects from the previous activity. (10-12 objects for each group) **Activity 3:** ● Materials from previous centers (see below)	● Create a two-column chart with the headings "longer" and "shorter" for the synthesis. **Activity 2:** ● Each group of 2 needs scissors and a piece of string longer than the length of the side of the students' desks shown in the activity. Cool-down Compare the Pencil and Marker	string ● Unsharpened pencil ● Scissors **Activity 2:** ● Each group needs measuring materials from the previous activity.	Close? Stage 3 Recording Sheet **Activity 2:** ● Gather materials from previous centers (see below).
Assessment	**Formative Assessment Strategies: observation, questioning, student discourse** **See Section A Checkpoint Assessment, Section A Checkpoint Teacher's Guide**			
	Section A: Practice Problems			
Centers Materials	● Target Numbers, Stages 1–3 ● Five in a Row, Stages 1–6 ● Get Your Numbers in Order, Stage 1			● Target Numbers, Stages 1–3 ● Five in a Row, Stages 1–6 ● Get Your Numbers in Order, Stage 1

Making Meaning:

Lesson 1: Compare Lengths: Activities 1, 2, 3, & Lesson Synthesis

- The purpose of this lesson is for students to compare the length of objects by lining up the endpoints and order objects by length.
- Teacher presentation materials
- Slides

Lesson 2: Compare the Lengths of Objects Indirectly

- The purpose of this lesson is for students to compare the length of two objects indirectly by comparing each with the length of a third object.
- 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: Choose Objects to Compare Lengths Indirectly: Warm-Up and Activity 1

- The purpose of this lesson is for students to compare the length of two objects that cannot be compared directly.
- Teacher presentation materials
- Slides

Create and Produce:

Lesson 3: Choose Objects to Compare Lengths Indirectly: Activity 2 and Lesson Synthesis

- The purpose of this lesson is for students to compare the length of two objects that cannot be compared directly.
- Teacher presentation materials
- Slides

The purpose of this activity is for students to compare the length of two objects using a third object. When students decide if the teacher's desk will fit through the door or compare other large pieces of furniture, they will need to be precise about which lengths they are measuring as objects like the teacher's desk, a rug, and a bookcase, have a length, width, and in some cases a height (MP6). Next, they will need to select an appropriate third object to use to compare the lengths they have chosen. Teachers may choose to assign different questions for different groups to start with to facilitate student movement around the room. Teachers may also change any question that does not apply to their classroom.

Students will work in groups of 2 and have access to measuring materials. Students will need to determine if the teacher's desk can fit through the door. Students will need to show their thinking using drawings, numbers, or words. Additional questions are available to provide different tasks to groups:

1. Will the teacher's desk fit through the door?
2. Will a student desk fit through the door?
3. Which is longer, the bookshelf or the rug?
4. Which is longer, the file cabinet or the bookshelf?
5. Which is shorter, the bookshelf or the teacher's desk?
6. Will the teacher's desk fit next to the bookshelf?

Communicate and Present:

Lesson 3, Activity 2: Synthesis

- Invite previously identified students to share.

Reflection:

Lesson 3 Synthesis:

"Today we used objects to compare other objects that

<table>
<tr><td>

- For each student, ask:
  - How did they compare the length of the objects?
  - What tool did they use?
  - What part of each object did they measure?

</td><td>could not be lined up. What was your method for picking an object to help you compare in both activities?” (I found an object in between the lengths of the objects. I found an object close to the length of one of the objects. I used string so I could make it any length.)</td></tr>
<tr><td colspan="2">

Additional Learning:
Lesson 4: Center Day

- The purpose of this lesson is for students to practice adding and subtracting within 100.
- Teacher presentation materials
- Slides

</td></tr>
<tr><td>**Notes: Follow all lessons in numerical order.**</td><td>**Complete File with Resources and Task:**

Task-Based Learning Plan Format for Unit 6 Topic 1</td></tr>
</table>

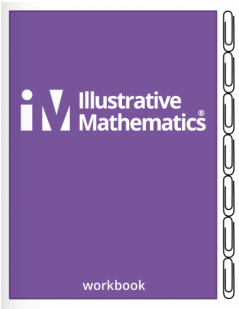
Topic # 2 (Section B)	Topic Name: Section B - Measure by Iterating up to 120 Length Units	Duration: Recommended: 6 days

Topic Description:

Section Learning Goals

- Count groups of up to 120 objects and write a number to represent them.
- Lay length units end-to-end with no gaps or overlaps and count the units to determine length.

In this section, students measure the length of objects by iterating length units. They learn the conventions of length measurement and represent their measurements with a number and the name of the length unit. They understand that the length measurement of an object is the number of same-size length units that span it without gaps or overlaps.



Students use manipulatives such as connecting cubes, paper clips, and base-ten cubes as length units. Other units of measurement that would yield a whole number of length units are also suggested.
It is important for students to measure lengths in whole units as they are developing the idea that the number of units for the same length would not change when measured by different people.

Students expand their counting and number-writing skills to 120 as they use base-ten cubes to measure lengths that are longer than 99 length units. Along the way, students consider groups of 10 and see that 10 tens is 100. A hundred is not discussed as a unit in grade 1, but the written notation is introduced so students can read and write the numbers 100–120.

Competencies Addressed:	Essential Question and Enduring Understanding Addressed in this Topic:
1.MD.A.1, 1.MD.A.2, 1.NBT.A.1, 1.NBT.C.4, 1.NBT.C.5, 1.OA.C.5, 1.OA.C.6 **Understanding and Applying Number Systems** Indicator 2 - I can count, read, and write whole numbers.	**Essential Question** Why do addition and subtraction help me understand objects' relationship to each other?

<table>
<tr>
<td>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.
Indicator 2- can subtract within 20 using strategies.
Measurement and Data Investigations
Indicator 1 - I can measure and estimate lengths by selecting and using appropriate tools.</td>
<td>Enduring Understanding
Adding and subtracting helps us to see the difference in amounts, and compare them.
When students add and subtract within 10, they can use place value to help them understand how quantities can be broken down and manipulated to find what happens when two amounts are joined together or taken apart. These differences in quantities can be compared, and represented and interpreted as categorical data.</td>
</tr>
<tr>
<td>In this Topic, students will know:

● Measure objects
● Place Value Understanding
● Addition
● Read and Write Numbers to 120
● Estimation</td>
<td>Topic Vocabulary:

Academic vocabulary
length
estimation
inaccurate
true
false</td>
</tr>
<tr>
<td rowspan="2">In this Topic, students will be able to:

● Measure objects in connecting cube side lengths using connecting cube towers.
● Understand that a connecting cube tower with x cubes in it can be described as being “x cubes long.”
● Measure length by iterating same-size length units without gaps or overlaps.
● Measure lengths of objects using different length units.
● Understand that the number associated with a length depends on the chosen length unit.
● Measure length and count the number of length units for quantities up to 110.
● Read numbers to 110.
● Measure length and determine an efficient way to count the number of length units up to 120.
● Read and write numbers to 120.</td>
<td>Plan for Student Reflection:

Student Journal Prompts and Reflection Practices</td>
</tr>
<tr>
<td>Plan for Teacher Reflection:

● Reviewing formative assessments
● Developing scaffolds
● Collaborative scoring
● PLCs
● Planning for small groups
● Teacher Reflection Prompts in Teacher Guides</td>
</tr>
</table>

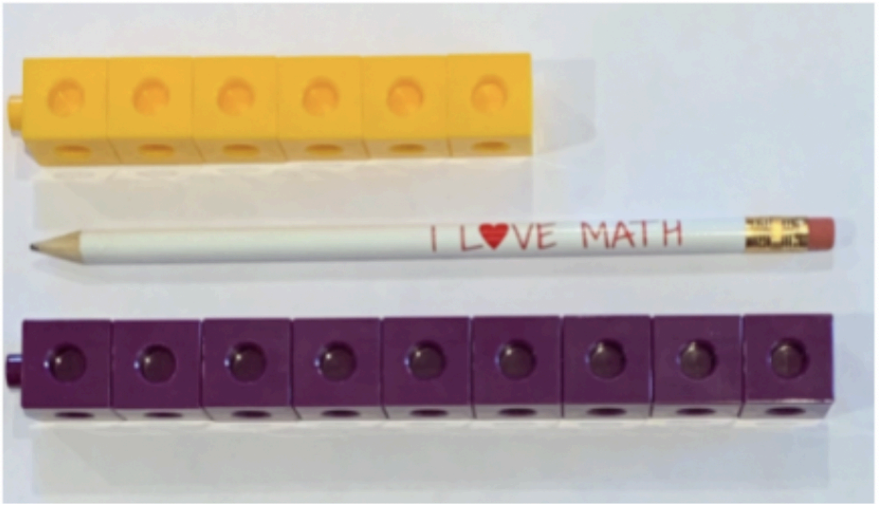
Topic 2 Task Development

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 - Measure by Iterating up to 120 Length Units	**Grade Level and Unit: Grade 1, Unit 6**
Description of Task: Students will work on groups of 3 and will be provided tools for creating a visual display. They will need to create a poster to show how they counted the cubes they used to measure the length of the animal in the measuring animals activity (Lesson 9, Activity 1) that will be shared during a gallery walk. Students will not write the number of cubes their animal measure on their poster.	**Purpose of Task:** The purpose of this task is for students to count, read, and write numbers up to 120 in measurement context.
Background of Students/Learning Progression: In the last topic (section A), students transitioned from direct comparison of lengths to indirect comparisons. They reasoned about how they can compare the length of objects that cannot be easily lined up by ordering the length of three objects directly. Next, they compared two objects by using the length of a third object. At the end of the last topic, students practiced using a third object as a tool to compare the length of objects that are very difficult to line up. For example, they use a string to compare the length of one side of a desk and the length of one of its legs.	**Ensure all competencies are addressed in the task:** ▢ Yes, all competencies are addressed ▢ No - Task needs modification
Getting Started: **Lesson 5: Measure with Connect Cubes: Warm-up: Notice and Wonder: Measure a Pencil** ● The purpose of this lesson is for students to understand that a connecting cube tower with x cubes in it can be described as being “x cubes long” and to measure objects in connecting cube side lengths using connecting cube towers. ● Teacher presentation materials ● Slides The purpose of this warm-up is for students to compare lengths of objects and notice when they are longer, shorter, or equal to each other in length. While students may notice and wonder many things about these images, comparing the length is an important discussion point.	

Launch:

- Groups of 2
- Display the image.
- “What do you notice? What do you wonder?”
- 1 minute: quiet think time



Activity:

- “Discuss your thinking with your partner.”
- 1 minute: partner discussion
- Share and record responses.

Students may notice:

- The yellow tower is shorter than the pencil.
- The purple tower is longer than the yellow tower.
- The pencil and purple tower are the same length.

Students may wonder:

- How long is the pencil?
- How much longer is the purple tower than the yellow tower?

Synthesis: “How can you describe the length of the pencil?”
(The pencil is longer than the yellow cubes. The pencil is the same length as the purple cubes.)

Learning Cycle Model Process

Section B

IM Lesson	L5: Measure with Connecting Cubes	L6: Measure with Paper Clips	L7: Measure Length with Different Length Units	L8: Groups Up to 100	L9: Write Numbers to 120	L10: Center Day 2
Learning Cycle Model	**Getting Started & Making Meaning**	**Making Meaning**	**Making Meaning**	**Making Meaning**	**Investigate & Create and Produce**	**Additional Learning**
Naugatuck Math Competency	**Addressing** 1.MD.1, 1.NS.4, 1.NS.5, 1.OA.1, 1.OA.2	**Addressing** 1.MD.1	**Addressing** 1.MD.1	**Addressing** 1.MD.1, 1.NS.2	**Addressing** 1.MD.1, 1.NS.2	**Addressing** 1.MD.1, 1.NS.4, 1.NS.5, 1.OA.1, 1.OA.2

Math Practice Standards	MP 3	MP 6	MP 6	MP 7	MP 7, 8	
Lesson Purpose	The purpose of this lesson is to understand that a connecting cube tower with x cubes in it can be described as being “x cubes long” and to measure objects in connecting cube side lengths using connecting cube towers.	The purpose of this lesson is to measure length by iterating same-size length units with no gaps or overlaps.	The purpose of this lesson is for students to measure lengths of objects using different length units and understand that the number associated with a length depends on the chosen unit.	The purpose of this lesson is to measure length and count and read numbers to 110.	The purpose of this lesson is to count, read, and write numbers up to 120 in a measurement context.	The purpose of this lesson is for students to practice measuring and adding within 100.
Teacher Facing Learning Goals	● Measure objects in connecting cube side lengths using connecting cube towers. ● Understand that a connecting cube tower with x cubes in it can be described as being “x cubes long.”	Measure length by iterating same-size length units without gaps or overlaps.	● Measure lengths of objects using different length units. ● Understand that the number associated with a length depends on the chosen length unit.	● Measure length and count the number of length units for quantities up to 110. ● Read numbers to 110.	● Measure length and determine an efficient way to count the number of length units up to 120. ● Read and write numbers to 120.	● Add within 100. ● Measure length by iterating same-size length units without gaps or overlaps.
Vocabulary Focus	Length, measurement	Estimate, measuring, length	Measurements, length, accurate	Measure, height, length, measurement, collection, representation	Length, measure, representation	–
Lesson Structure	**Warm-up: 10 minutes** Notice and Wonder: Measure a Pencil **Activity 1: 15 minutes** Lengths of Creepy, Crawly Things **Activity 2: 10 minutes** Measure More Creepy, Crawly Things **Activity 3: 15 minutes**	**Warm-up: 10 minutes** Estimation Exploration: Length of the Desk **Activity 1: 10 minutes** Measure with Paper Clips **Activity 2: 10 minutes** Measure Our Workbook	**Warm-up: 10 minutes** Notice and Wonder: Large Cubes and Small Cubes **Activity 1: 20 minutes** Measure With Different Objects **Activity 2: 15 minutes** Measure the Teacher’s Shoe	**Warm-up: 10 minutes** Choral Count: Above 100 **Activity 1: 25 minutes** Long Lengths with Small Cubes **Activity 2: 15 minutes** Representations of Large Numbers **Synthesis: 10 minutes**	**Warm-up: 10 minutes** Choral Count: Numbers Up to 120 **Activity 1: 15 minutes** Measure Animal Lengths **Activity 2: 20 minutes** Write Numbers to Represent Animal Lengths	**Warm-up: 10 minutes** True or False: Adding within 100 **Activity 1: 20 minutes** Introduce Estimate and Measure, Choose Your Unit **Activity 2: 20 minutes** Centers: Choice Time **Synthesis: 10 minutes**

	Centers: Choice Time **Synthesis: 10 minutes**	**Activity 3: 20 minutes** Measure Strips of Tape **Synthesis: 10 minutes**	**Synthesis: 10 minutes** **Cooldown: 5 minutes**		**Synthesis: 10 minutes** **Cooldown: 5 minutes**	
Materials to Gather	**Materials to Gather** ● Connecting cubes ● Materials from previous centers **Materials to Copy** ● Lengths of Creepy, Crawly Things ● More Creepy, Crawly Things	**Materials to Gather** ● Paper clips (1-inch) ● Tape (painter's or masking) **Materials to Copy** ● Measure with Paper Clips	**Materials to Gather** ● Base-ten blocks ● Connecting cubes ● Paper clips (1-inch) ● Paper clips (2-inch) ● Tape (painter's or masking)	**Materials to Gather** ● Base-ten blocks ● Scissors ● String **Materials to Copy** ● Representations of Numbers Over 80	**Materials to Gather** ● Base-ten blocks ● Tape (painter's or masking) ● Tools for creating a visual display	**Materials to Gather** ● Base-ten blocks ● Connecting cubes ● Objects of various lengths ● Paper clips (2-inch) **Materials to Copy** ● Estimate and Measure Stage 1 Recording Sheet

Lesson Materials/ Resources	Lesson 5 Slides Teacher Materials Student Pages **Activity 1:** ● Give each student connecting cubes and a copy of the blackline master, Lengths of Creepy, Crawly Things. **Activity 2:** ● Give each student connecting cubes and a copy of the blackline master, More Creepy, Crawly Things. **Activity 3:** ● Gather materials from previous centers (see below).	Lesson 6 Slides Teacher Materials Student Pages **Activity 1:** ● Each group of 2 needs about 30 1-inch paper clips and a copy of the blackline master, Measure with Paper Clips. **Activity 3:** ● Put strips of tape of the designated lengths on the floor. Label each strip. There should be one strip of tape per group. ● Tape A: 18 inches ● Tape B: 16 inches ● Tape C: 12 inches ● Tape D: 20 inches ● Tape E: 22 inches ● Tape F: 25 inches ● Give each group of 2-4 paper clips.	Lesson 7 Slides Teacher Materials Student Pages **Activity 1:** ● Create sets of 30 connecting cubes, 50 base-ten cubes (centimeter cubes), twenty 2-inch paper clips, and twenty 1-inch paper clips for each group. ● Put 18-inch strips of tape on the floor for each group. Cool-down The Length of a Shoe	Lesson 8 Slides Teacher Materials Student Pages **Activity 1:** ● Each group needs 120 base-ten cubes, string, and scissors. **Activity 2:** ● Create a set of cards from the blackline master, Representations of Numbers Over 80 for each group of 2.	Lesson 9 Slides Teacher Materials Student Pages **Activity 1:** ● Put strips of tape on the floor, 2–3 of each length. Label with the animal name. There should be one length of tape for each group of 3. ● Beaver: 95 cms ● Snake: 105 cms ● Giant Anteater: 120 cms ● Dog: 110 cms ● Raccoon: 100 cms ● Red Fox: 115 cms ● Make bags or buckets of about 125 base-ten cubes per group of 3. **Activity 2:** ● Give each group of 3 tools to create a visual display. Cool-down How Many Cubes?	Lesson 10 Slides Teacher Materials Student Pages **Activity 1:** ● Introduce a new center and copy Estimate and Measure Stage 1 Recording Sheet ● Gather or identify objects of various lengths that are less than 20 connecting cubes long (pencils, markers, books, glue, scissors, shoe, tape dispenser). **Activity 2:** ● Gather materials from previous center (see below).
Assessment	**Formative Assessment Strategies: observation, questioning, student discourse** **See Section B Checkpoint Assessment, Section B Checkpoint Teacher's Guide**					
	Section B: Practice Problems					
Centers	● How Close? Stages					● How Close? Stages

Materials	1–3 • Target Numbers, Stages 1–3 • Five in a Row, Stages 1–6					1–3 • Target Numbers, Stages 1–3 • Five in a Row, Stages 1–6

Making Meaning:

Lesson 5: Measure with Connect Cubes: Activities 1, 2, 3 & Lesson Synthesis

- The purpose of this lesson is for students to understand that a connecting cube tower with x cubes in it can be described as being "x cubes long" and to measure objects in connecting cube side lengths using connecting cube towers.
- Teacher presentation materials
- Slides

Lesson 6: Measure with Paper Clips

- The purpose of this lesson is for students to measure length by iterating same-size length units with no gaps or overlaps.
- Teacher presentation materials
- Slides

Lesson 7: Measure Length with Different Length Units

- The purpose of this lesson is for students to measure lengths of objects using different length units and understand that the number associated with a length depends on the chosen unit.
- Teacher presentation materials
- Slides

Lesson 8: Groups Up to 110

- The purpose of this lesson is for students to measure length and count and read numbers to 110.
- 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 9: Write Numbers to 120: Warm-Up and Activity 1

- The purpose of this lesson is for students to count, read, and write numbers up to 120 in measurement context.
- Teacher presentation materials
- Slides

Create and Produce:

Lesson 9: Write Numbers to 120: Activity 2 & Lesson Synthesis

- The purpose of this lesson is for students to count, read, and write numbers up to 120 in measurement context.
- Teacher presentation materials
- Slides

The purpose of this activity is for students to write numbers between 95 and 120. Groups create posters that show a drawing of how they counted their animal measurements from the last activity. Groups should not write a number for the final measurement on the poster. Students do a gallery walk to interpret each representation and record the count with a number in their workbooks. Group members then compare their counts and written numbers.

When students look at the different representations and determine the length of each animal, they may notice that the representation may help to accurately find the value. For example, students may draw groups of 10 cubes rather than every individual cube (MP7).

Activity:

Students will work on groups of 3 and will be provided tools for creating a visual display. They will need to create a poster to show how they counted the cubes they used to measure the length of the animal in the measuring animals activity (Lesson 9, Activity 1). Students will not write the number of cubes their animal measure on their poster.

Communicate and Present:

Lesson 9, Activity 2:

- "Now we will do a gallery walk to see different representations of your measurements. As you look at each poster, use the representation to determine the length of the animal. Write the number of cubes that represents its length in your book."
- 7 minutes: gallery walk

Reflection:

Lesson 9, Activity 2: Synthesis

- Display the snake and giant anteater posters.
- "How do I write the number that represents the length of the snake?"
- "Where do you see 100 in this poster? Where do you see 5?"
- Repeat for giant anteater.

Additional Learning:

Lesson 10: Center Day 2

- The purpose of this lesson is for students to practice measuring and 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 6 Topic 2

Topic # 3 (Section C)	Topic Name: Section C - All Kinds of Story Problems	Duration: Recommended: 7 days

Topic Description:

Section Learning Goals

- Solve addition and subtraction story problems with unknowns in all positions.

In this section, students solve all types of story problems with unknowns in all positions. They interpret and write addition and subtraction equations that represent the problems.

Students begin by building and comparing concrete objects to solve compare problems in the context of measurement. These problems involve Bigger or Smaller Unknown, a new problem type for students, and can be represented by diagrams such as shown here.

Next, students solve Take From problems with unknowns in all positions with a focus on Start Unknown, another new problem type. These problems can be challenging because the action can be represented with subtraction, but solving the problem may involve adding. For example:

Elena has some beads in a box.
She uses 5 of them to make a bracelet.
She has 10 beads left.
How many beads were in Elena's box?

An equation that represents the situation is ? - 5 = 10. However, students might write 10 + 5 = ? to find the answer to the question.

Regardless of the equation they write, students should focus on explaining how their equation matches the story problem.

Competencies Addressed:	Essential Question and Enduring Understanding Addressed in this Topic:
1.MD.A.2, 1.NBT.A.1, 1.NBT.C.4, 1.OA.A.1, 1.OA.A.2, 1.OA.B.4, 1.OA.C.6	**Essential Question**

<table>
<tr>
<td>Understanding and Applying Number Systems
Indicator 2 - I can count, read, and write 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.
Indicator 2- can subtract within 20 using strategies.
Indicator 3 - I can represent and solve problems involving addition and subtraction.
Measurement and Data Investigations
Indicator 1 - I can measure and estimate lengths by selecting and using appropriate tools.</td>
<td>Why do addition and subtraction help me understand objects' relationship to each other?

Enduring Understanding
Adding and subtracting helps us to see the difference in amounts, and compare them.
When students add and subtract within 10, they can use place value to help them understand how quantities can be broken down and manipulated to find what happens when two amounts are joined together or taken apart. These differences in quantities can be compared, and represented and interpreted as categorical data.</td>
</tr>
<tr>
<td>In this Topic, students will know:
Word Problems
Measurement
Addition
Subtraction
Oral Count to 120
Counting Objects
Read and Write Numbers to 120
Equations
Place Value Understanding</td>
<td>Topic Vocabulary:

Academic vocabulary
operation
place value</td>
</tr>
<tr>
<td rowspan="2">In this Topic, students will be able to:
Use addition and subtraction to solve story problems about measurement.
Solve compare story problems with unknowns in all positions.
Solve Take From story problems, with unknowns in all positions, in a way that makes sense to them.
Analyze story problems with unknowns in all positions.
Match addition and subtraction equations to story problems.</td>
<td>Plan for Student Reflection:

Student Journal Prompts and Reflection Practices</td>
</tr>
<tr>
<td>Plan for Teacher Reflection:</td>
</tr>
</table>

● Use addition and subtraction to solve story problems with unknowns in all positions. ● Write equations to represent story problems. ● Count groups of up to 120 objects and write a number to represent them. ● Measure length by iterating same-size length units without gaps or overlaps. ● Read and write numbers to 120. ● Analyze and solve Compare story problems with unknowns in all positions. ● Write equations to represent story problems.	● Reviewing formative assessments ● Developing scaffolds ● Collaborative scoring ● PLCs ● Planning for small groups ● Teacher Reflection Prompts in Teacher Guides

Topic 3 Task Development

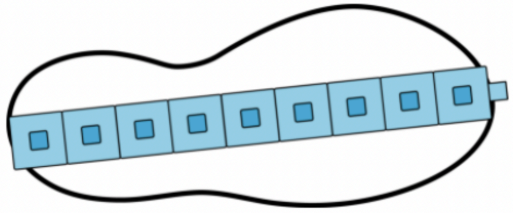
Each Topic has its own Task that serves as a roadmap for instruction during the unit. The task follows the Learning Cycle Model that drives teaching and learning in Naugatuck Public Schools.

Task Title: Topic 3 - All Kinds of Story Problems	**Grade Level and Unit: Grade 1, Unit 6**
Description of Task: Students will work in groups of 2 and will be assigned a problem from the previous activity (Lesson 15, Activity 1). With their partner, students will create a visual display that shows their thinking about the problem. They may want to include details such as drawings, numbers, or words to help others understand their thinking. They should not include equations.	**Purpose of Task:** The purpose of this task is for students to analyze the work of their classmates and write equations to show how they made sense of each others' thinking.
Background of Students/Learning Progression: In the last topic (section B), students measured the length of objects by iterating length units. They learned the conventions of length measurement and represented their measurements with a number and the name of the length unit. They now understand that the length measurement of an object is the number of same-size length units that span it without gaps or overlaps. Students used manipulatives such as connecting cubes, paper clips, and base-ten cubes as length units. Students expanded their counting and number-writing skills to 120 as they used base-ten cubes to measure lengths that are longer than 99 length units. Along the way, students considered groups of 10 and saw that 10 tens is 100.	**Ensure all competencies are addressed in the task:** ▢ Yes, all competencies are addressed ▢ No - Task needs modification

Getting Started:

Lesson 11: How Long Are Our Shoes?: Warm-Up: Notice and Wonder: Length of a Shoe

- The purpose of this lesson is for students to use addition and subtraction to solve story problems about measurement.
- Teacher presentation materials
- Slides



Launch:

- Groups of 2
- Display the image.
- “What do you notice? What do you wonder?”
- 1 minute: quiet think time

Activity:

- “Discuss your thinking with your partner.”
- 1 minute: partner discussion
- Share and record responses.

Students may notice:

- It’s the outline of a shoe.
- The cubes measure the longest part of the shoe, from toe to heel.
- The length of the shoe is 9 connecting cubes.

Students may wonder:

- Whose shoe is that?
- How many cubes long is my shoe?
- Are any of our shoes the same length?

Synthesis:“Now you are going to get a chance to measure the length of your own shoe.”

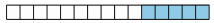
Learning Cycle Model Process

Section C

IM Lesson	L11: How Long Are Our Shoes?	L12: Compare Measurements	L13: Solve Take From Story Problems	L14: Which Equations Matches?	L15: Write Equations for Story Problems	L16: Center Day 3	L17: Puppies and Tulips
Learning Cycle Model	**Getting Started & Making Meaning**	**Making Meaning**	**Making Meaning**	**Making Meaning**	**Investigate & Create and Produce**	**Additional Learning**	**Additional Learning**

Naugatuck Math Competency	**Addressing** 1.MD.1, 1.OA.1, 1.OA.2, 1.OA.3	**Addressing** 1.NS.2, 1.OA.1, 1.OA.2, 1.OA.3	**Addressing** 1.OA.1, 1.OA.2, 1.OA.3	**Addressing** 1.OA.1, 1.OA.2, 1.OA.3	**Addressing** 1.NS.2, 1.OA.1, 1.OA.2, 1.OA.3	**Addressing** 1.MD.1, 1.NS.2, 1.NS.4	**Addressing** 1.OA.1, 1.OA.2, 1.OA.3
Math Practice Standards	MP 2	MP 2, 8	MP 2, 7	MP 2	MP 2		MP 4
Lesson Purpose	The purpose of this lesson is for students to use addition and subtraction to solve story problems about measurement.	The purpose of this lesson is for students to solve Compare story problems about measurement.	The purpose of this lesson is for students to solve Take From problems, with unknowns in all positions, in a way that makes sense to them.	The purpose of this lesson is for students to analyze story problems and match addition and subtraction equations to them.	The purpose of this lesson is for students to solve story problems with unknowns in all positions using addition and subtraction. Students write equations to represent each story problem.	The purpose of this lesson is to practice working with numbers to 120 and measuring lengths.	The purpose of this lesson is for students to use their understanding of addition and subtraction to solve Compare story problems.
Teacher Facing Learning Goals	Use addition and subtraction to solve story problems about measurement.	Solve Compare story problems with unknowns in all positions.	Solve Take From story problems, with unknowns in all positions, in a way that makes sense to them.	● Analyze story problems with unknowns in all positions. ● Match addition and subtraction equations to story problems.	● Use addition and subtraction to solve story problems with unknowns in all positions. ● Write equations to represent story problems.	● Count groups of up to 120 objects and write a number to represent them. ● Measure length by iterating same-size length units without gaps or overlaps. ● Read and write numbers to 120.	● Analyze and solve Compare story problems with unknowns in all positions. ● Write equations to represent story problems.
Vocabulary Focus	Measure, length, longer, shorter, representation, story problem, tools, diagram, method	Equation, represent	–	–	–	–	–
Lesson Structure	**Warm-up: 10 m**	**Warm-up: 10 m**	**Warm-up: 10 m**	**Warm-up: 10 m**	**Warm-up: 10 m**	**Warm-up: 10 m**	**Warm-up: 10 m**

	Notice and Wonder: Length of a Shoe **Activity 1: 20 m** The Length of Our Shoes **Activity 2: 15 m** Shoe Stories **Synthesis: 10 m** **Cooldown: 5 m** Measure Shoes	Notice and Wonder: 6, 8, and 14 **Activity 1: 15 m** Friendship Bracelets **Activity 2: 10 m** Same Bracelets, Different Story **Activity 3: 15 m** Introduce Write Numbers, Numbers to 120 by 1 **Synthesis: 10 m**	Number Talk: Add 2 Two-digit Numbers **Activity 1: 20 m** How Many to Start? **Activity 2: 15 m** One Representation, Three Stories **Synthesis: 10 m** **Cooldown: 5 m** Clare's Beads	Which One Doesn't Belong: Equations **Activity 1: 15 m** Sort Story Problems **Activity 2: 20 m** Stories and Equations **Synthesis: 10 m** **Cooldown: 5 m** Find the Match	Estimation Exploration: Paper Cranes **Activity 1: 10 m** Story Problems about Origami **Activity 2: 25 m** Gallery Walk: Write Equations **Synthesis: 10 m** **Cooldown: 5 m** Write an Equation	Number Talk: Add 20 and 1 **Activity 1: 20 m** Introduce Counting Collections, Estimate and Count Up to 120 **Activity 2: 20 m** Centers: choice Time **Synthesis: 10 m**	Notice and Wonder: Puppies and Tulips **Activity 1: 25 m** Puppy and Tulip Stories **Activity 2: 15 m** Act it Out **Synthesis: 10 m**
Materials to Gather	**Materials to Gather** ● Connecting cubes in towers of 10 and singles	**Materials to Gather** ● Connecting cubes in towers of 10 and singles ● Dry erase markers ● Sheet protectors **Materials to Copy** ● Write the Number Stage 3 Gameboard	**Materials to Gather** ● Connecting cubes in towers of 10 and singles	**Materials to Gather** ● Connecting cubes in towers of 10 and singles **Materials to Copy** ● Story Problem Cards, Unknowns in All Positions	**Materials to Gather** ● Connecting cubes in towers of 10 and singles ● Tools for creating a visual display	**Materials to Gather** ● 10-frames ● Collections of objects ● Cups ● Paper plates **Materials to Copy** ● Counting Collections Stage 3 Recording Sheet	**Materials to Gather** ● Colored pencils, crayons, or markers ● Connecting cubes ● Construction paper ● Glue ● Materials from a previous activity **Materials to Copy** ● Origami Triangles: Puppies and Tulips
Lesson Materials/ Resources	Lesson 11 Slides Teacher Materials Student Pages	Lesson 12 Slides Teacher Materials Student Pages	Lesson 13 Slides Teacher Materials Student Pages	Lesson 14 Slides Teacher Materials Student Pages	Lesson 15 Slides Teacher Materials Student Pages	Lesson 16 Slides Teacher Materials Student Pages	Lesson 17 Slides Teacher Materials Student Pages

	Activity 1: ● Give each group of 2 connecting cubes in towers of 10 and singles and paper. **Activity 2:** ● Give students access to connecting cubes in towers of 10 and singles. Cool-down Measure Shoes	**Activity 1:** ● Give each group of 2 connecting cubes in towers of 10 and singles. **Activity 2:** ● Give students access to connecting cubes in towers of 10 and singles. **Activity 3:** ● Introduce the center Write Numbers Stage 3 ● Put each gameboard in a sheet protector.	**Activity 1:** ● Give each group of 2 connecting cubes in towers of 10 and singles. **Activity 2:** ● Give groups of 2 access to connecting cubes. ● Create a poster of the unlabeled diagram shown three times:  Cool-down Clare's Beads	**Activity 1:** ● Create a set of cards from the blackline master, Story Problem Cards, Unknowns in All Positions for each group of 2. ● Give each group access to connecting cubes in towers of 10 and singles. **Activity 2:** ● Give students access to connecting cubes in towers of 10 and singles. Cool-down Find the Match	**Activity 1:** ● Give each group of 2 access to connecting cubes in towers of 10 and singles. **Activity 2:** ● Give each group of 2 tools for creating a visual display. Cool-down Write an Equation	**Activity 1:** ● Create a collection of up to 120 objects per group of 2 students (buttons, two-color counters, linking cubes, paper clips, pattern blocks, square tiles). **Activity 2:** ● Materials from previously introduced centers (see below)	**Activity 1:** ● Each group of 2 needs at least 20 paper triangles. ● Blackline master Origami Triangles: Puppies and Tulips ● Give students colored pencils, crayons, or markers and construction paper and glue. **Activity 2:** ● Each group needs their origami stories from the previous activity and connecting cubes.
Assessment	**Formative Assessment Strategies: observation, questioning, student discourse** **See Section C Checkpoint Assessment, Section C Checkpoint Teacher's Guide** **Unit 6 Assessment Unit 6 Assessment Teacher Guide**							
	Section C: Practice Problems							
Centers Materials						● Write Numbers, Stages 1–3 ● Estimate and Measure, Stage 1		

Making Meaning:

Lesson 11: How Long Are Our Shoes?

- The purpose of this lesson is for students to use addition and subtraction to solve story problems about measurement.
- Teacher presentation materials
- Slides

Lesson 12: Compare Measurements

- The purpose of this lesson is for students to solve Compare story problems about measurement.
- Teacher presentation materials
- Slides

Lesson 13: Solve Take From Story Problems

- The purpose of this lesson is for students to solve Take From problems, with unknowns in all positions, in a way that makes sense to them.
- Teacher presentation materials
- Slides

Lesson 14: Which Equation Matches?

- The purpose of this lesson is for students to analyze story problems and match addition and subtraction equations to them.
- 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 15: Write Equations for Story Problems: Warm-Up and Activity 1

- The purpose of this lesson is for students to solve story problems with unknowns in all positions using addition and subtraction. Students write equations to represent each story problem.
- Teacher presentation materials
- Slides

Create and Produce:

Lesson 15: Write Equations for Story Problems: Activity 2 and Synthesis

- The purpose of this lesson is for students to solve story problems with unknowns in all positions using addition and subtraction. Students write equations to represent each story problem.
- Teacher presentation materials
- Slides

The purpose of this activity is for students to analyze the work of their classmates and write equations to show how they made sense of each others' thinking. During the synthesis, students discuss how different representations and equations can match the same story problem. When students share connections between different representations and the story problems, they reason abstractly and quantitatively (MP2).

Students will work in groups of 2 and will be assigned a problem from the previous activity (Lesson 15, Activity 1). With their partner, students will create a visual display that shows their thinking about the problem. They may want to include details such as drawings, numbers, or words to help others understand their thinking. They should not include equations.

Communicate and Present:

- "Now we will have a gallery walk to look at each other's work. As you visit each poster write an equation that matches how the group represented their thinking. You may write more than one equation for some of the problems."
- 10 minutes: gallery walk

Lesson 15, Activity 2 Synthesis:

- For each story problem, display the posters students created to represent it and invite students to share the equations they wrote.
- "How are the representations on the posters and the equations we shared for this problem the same? How were they different?" (Some show using addition to solve and some show subtraction. They all find the same answer. Some show each object and some use numbers to represent how many objects.)

Reflection:

Lesson 15 Synthesis:

"In this section we practiced solving different types of story problems. What did you learn? What do you still need to practice?" (I learned how drawing towers can help me solve problems for which I have to find the difference. I learned that sometimes you can add or subtract to solve problems. I still need help with writing equations, especially for the tricky story problems.)

Additional Learning:

Lesson 16: Center Day 3

- The purpose of this lesson is for students to practice working with numbers to 120 and measuring lengths.
- Teacher presentation materials
- Slides

Lesson 17: Puppies and Tulips (optional)

- The purpose of this lesson is for students to use their understanding of addition and subtraction to solve compare story problems.
- Teacher presentation materials
- Slides

Notes: Follow all lessons in numerical order.	**Complete File with Resources and Task:** Task-Based Learning Plan Format for Unit 6 Topic 3