UNIT 5

Numbers to 120

Essential Questions

- How can we identify the name and values of coins?
- How can we count a collection of coins?
- How can we use objects and drawings to represent numbers up to 120?
- How can we find 10 more and 10 less than a number up to 120?

Explore: Wazzle-Squash Treats
Students build curiosity from the beginning of the unit by engaging in a mathematical task that elicits multiple strategies and allows them to apply their own knowledge.

Unit Story: The Day of the Wazzle-Squash
In this story, Ying calls her best friend to tell her about the new town she lives in.

Focus on the TEKS

TEKS

Addressing

1.2.B, 1.2.C, 1.2.D, 1.2.E, 1.2.F, 1.2.G, 1.3.D, 1.4.A, 1.4.B, 1.4.C, 1.5.A, 1.5.C

Math Process Standards:

1.1.A, 1.1.B, 1.1.C, 1.1.D, 1.1.E, 1.1.F, 1.1.G

ELPS:

1.A, 1.B, 1.C, 1.E, 1.F, 2.B, 2.C, 2.D, 2.E, 2.F, 3.B, 3.C, 3.D, 3.E, 3.F, 3.H, 4.D, 4.F

Students identify pennies, nickels, dimes, and quarters by name and value. They recognize and describe the relationships among the coins to create a collection of coins with a given value and find the value of a collection of coins by counting by 2, 5, and 10 with the **cent** symbol.

Students extend their understanding of place value relationships to recognize a **hundred** as 10 tens or 100 ones and compose and decompose numbers up to 120 as so many hundreds, so many tens, and so many ones. They represent numbers with objects, pictures, and expanded and standard forms. They further their understanding of numbers up to 120 by comparing and ordering using symbols and **open number lines**.

Tupungato/Shutterstock.com

Connections and Coherence

Spotlight on Connecting the Content and Process Standards

Students engage in these Mathematical Process Standards as they . . .

TEKS 1.1.A	Use the values of coins and the relationships among coins to show different ways for making 100 cents and counting by twos, fives, and tens. **(Lesson 4, Activity 2)** TEKS 1.4.C 
TEKS 1.1.C	Use mental math to find 10 more and 10 less than a given number up to 120. **(Lesson 8, Activity 2)** TEKS 1.5.C
TEKS 1.1.D	Use an open number line and place value understanding to show how to compare and order numbers up to 120. **(Lesson 13, Activities 1 and 2)** TEKS 1.2.F
TEKS 1.1.E	Represent numbers up to 120 using drawings of tens and ones to compare and determine which number is greater. **(Lesson 11, Activity 1)** TEKS 1.2.B, 1.2.E
TEKS 1.1.F	Analyze the relationships between coins to determine the value of a collection of like and mixed coins by counting by twos, fives, and tens. **(Lesson 3, Activities 1 and 2)** TEKS 1.4.C
TEKS 1.1.G	Justify which statement they agree by describing the value of the tens and ones represented in a given drawing for a number up to 120. **(Lesson 6, Activity 2)** TEKS 1.2.C

Coherence

Prior Learning

- Students named and sorted pennies, nickels, dimes, and quarters by name using the images of coins. **(Grade K)**
  TEKS K.4.A
- Students explored the base-ten structure of two-digit numbers. **(Grade 1)**
  TEKS 1.2.C
- Students compared one- and two-digit numbers using symbols and *greater than* and *less than*. **(Grade 1)**
  TEKS 1.2.E

Future Learning

- Students will extend their work with numbers up to 120 by measuring length with different non-standard length units. **(Grade 1)**
  TEKS 1.7.B, 1.7.C
- Students will explore place value relationships to represent numbers up to 1,200 as so many hundreds, so many tens, and so many ones. **(Grade 2)**
  TEKS 2.2.A

See the Connections to Future Learning page for more information, including explanations and examples.

Unit at a Glance

Explore

Wazzle-Squash Treats: Launch the unit with a nonroutine task to investigate the question, "How many wazzle-squash treats can Carmina buy?"

Assess and Respond



A Pre-Unit Check

Learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1.

TEKS 1.2.C 1.4.A
TEKS 1.1.A, 1.1.D

Unit Investigation



1 Explore: Wazzle-Squash Treats

How many wazzle-squash treats can Carmina buy?

Use skip counting to find combinations of 10 and 5 that make a larger sum.

Building Toward: TEKS 1.4.C
TEKS 1.1.A, 1.1.B, 1.1.E, 1.1.F

Sub-Unit 1



2 Discovering Coins

Identifying Coins by Value and Describing the Relationships Among Coins

Discover the values of coins and use their physical characteristics to name them.

TEKS 1.4.A 1.4.B
TEKS 1.1.D, 1.1.F



3 Carmina's Coins

Counting by 2, 5, and 10 to Find the Value of a Collection of Coins

Skip count by 2, 5, and 10 to determine the value of a collection of coins.

TEKS 1.4.C 1.5.B
TEKS 1.1.A, 1.1.C, 1.1.F



7 Comparing Number Representations

Representing Numbers up to 120 Using Drawings, Expanded, and Standard Form

Compare and represent numbers up to 120 in more than 1 way using drawings, expanded form, and standard form.

TEKS 1.2.C
TEKS 1.1.D, 1.1.E



8 I See a Pattern

Finding 10 More and 10 Less up to 120

Use patterns to determine 10 more or 10 less than a given number up to 120.

TEKS 1.5.C
TEKS 1.1.C, 1.1.D, 1.1.F, 1.1.G



9 Wazzle-Squash Counting

Representing Numbers up to 120 Using Different Hundreds, Tens, and Ones

Use connecting cubes and drawings to represent numbers up to 120 as so many hundreds, tens, and ones.

TEKS 1.2.B
TEKS 1.1.D, 1.1.F, 1.1.G



10 Making a List

Interpreting Equivalent Representations Using Objects and Pictures

Compose and decompose numbers up to 120 using different amounts of hundreds, tens, and ones.

TEKS 1.2.B
TEKS 1.1.E, 1.1.F

Summative Assessment



A End-of-Unit Assessment

Learn about your students' understanding of the concepts and skills in the unit. There are two forms of the End-of-Unit Assessment: Forms A and B.

TEKS 1.2.B 1.2.C 1.2.D 1.2.E 1.2.F 1.2.G 1.4.A 1.4.B 1.4.C
TEKS 1.1.A, 1.1.D, 1.1.E, 1.1.G

All lessons can be taught using the Student Edition while the teacher projects Presentation Screens.

We recommend students use devices to interact with some lessons, as indicated with .

Pacing: 17 days | **Short on time?** See pacing considerations below.

Pre-Unit Check: 20 min
13 Lessons: 60 min each
Sub-Unit Quizzes: 20 min each
End-of-Unit Assessment: 45 min

Sub-Unit 2

4 Games Made Out of Wazzle-Squashes



Counting by 2, 5, and 10 to Make Groups of Coins With a Given Value

Skip count by 2, 5, and 10 to make groups of coins with a given value.

TEKS 1.4.C 1.5.B
TEKS 1.1.A, 1.1.D, 1.1.F

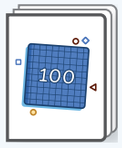
A Quiz: Sub-Unit 1



Learn about your students' understanding of the concepts and skills so far in this unit.

TEKS 1.4.A 1.4.B 1.4.C
TEKS 1.1.A

5 What Makes a Hundred?



Introducing Hundreds as a Unit

Represent 100 in different ways using tens and ones.

TEKS 1.2.C 1.5.A
TEKS 1.1.D, 1.1.F

6 Artful Wazzle-Squash Numbers



Representing Numbers up to 120 Using Objects and Drawings

Represent numbers up to 120 as amounts of hundreds, tens, and ones using connecting cubes and drawings.

TEKS 1.2.C 1.5.A
TEKS 1.1.E, 1.1.F, 1.1.G

Sub-Unit 3

A Quiz: Sub-Unit 2



Learn about your students' understanding of the concepts and skills so far in this unit.

TEKS 1.2.B 1.2.C 1.5.C
TEKS 1.1.B, 1.1.D, 1.1.E

11 Festival Displays



Comparing Numbers Shown in Different Ways

Compare numbers up to 120 represented as different amounts of hundreds, tens, and ones.

TEKS 1.2.B 1.2.E 1.2.G 1.3.D
TEKS 1.1.C, 1.1.D, 1.1.E, 1.1.F

12 So Many Wazzle-Squashes



Generating Numbers Greater Than or Less Than a Given Number

Generate numbers greater than or less than a given number.

TEKS 1.2.D
TEKS 1.1.F

13 Ordering Wazzle-Squashes



Ordering Numbers on an Open Number Line

Order numbers up to 120 using an open number line.

TEKS 1.2.F
TEKS 1.1.D

Pacing Considerations

End-of-Unit Assessment: This assessment can be given on the same day as the Pre-Unit Check for the next unit.

Lesson 1: This lesson can be omitted. It is an exploration that helps students engage in the unit, but is not essential for meeting required standards. If omitted, read and discuss the Unit Story prior to Lesson 2.

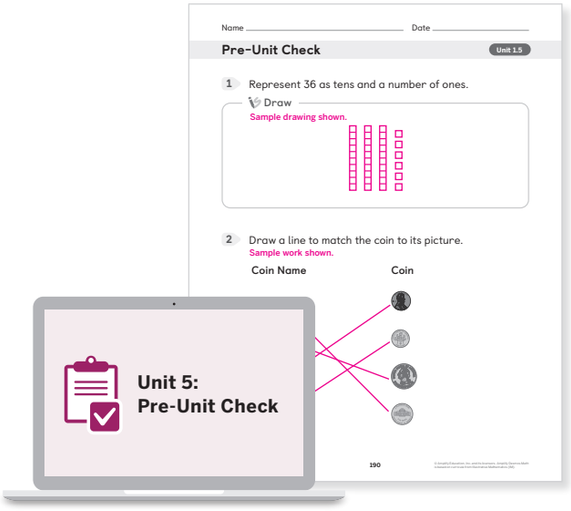
Assessments

Every unit includes a variety of formative and summative assessments designed to highlight students' understanding of a variety of concepts and skills.

Pre-Unit Check

Assign the **Pre-Unit Check** to learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1.

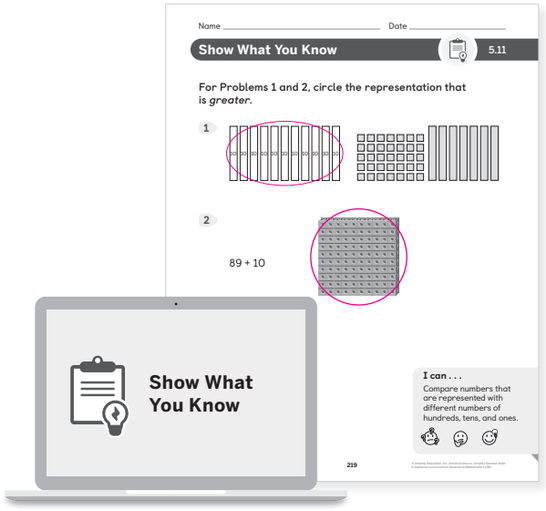
TEKS: 1.1.A, 1.1.D, 1.2.C, 1.4.A



Lesson | Show What You Know

Use the **Show What You Know** to learn more about your students' progress toward the lesson goal(s). Here is one example from this unit. **(Lesson 11)**

TEKS: 1.2.E

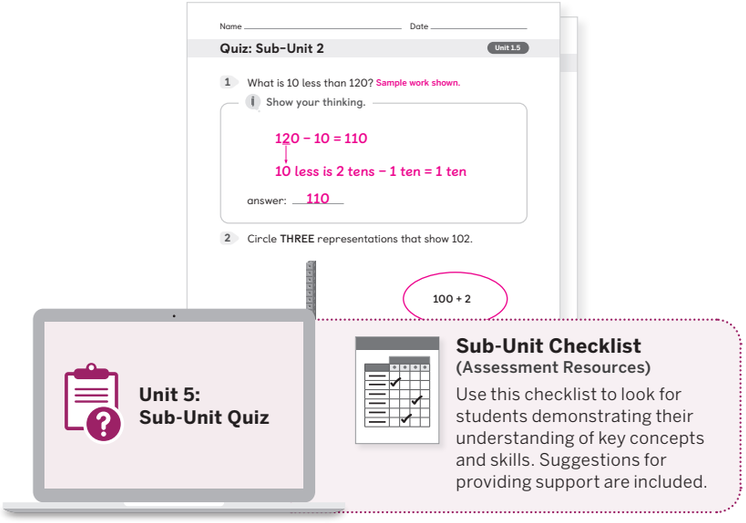


Sub-Unit Quizzes

Assign each **Sub-Unit Quiz** to learn about your students' understanding of the concepts and skills so far in this unit.

TEKS:

- **Quiz: Sub-Unit 1:** 1.1.A, 1.4.A, 1.4.B, 1.4.C
- **Quiz: Sub-Unit 2:** 1.1.B, 1.1.D, 1.1.E, 1.2.B, 1.2.C, 1.5.C

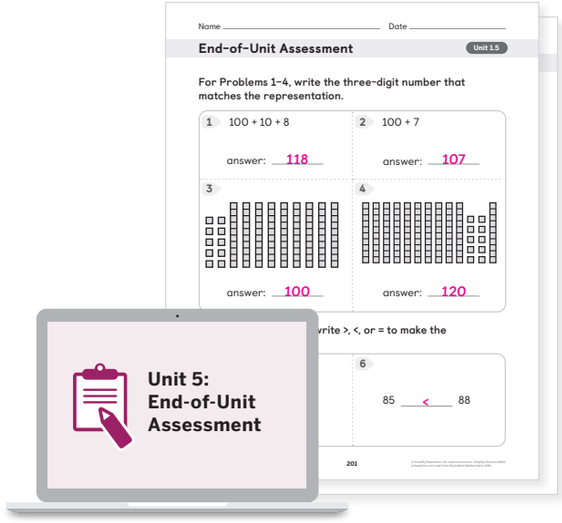


Sub-Unit Checklist
(Assessment Resources)
Use this checklist to look for students demonstrating their understanding of key concepts and skills. Suggestions for providing support are included.

End-of-Unit Assessment

Assign the **End-of-Unit Assessment** to learn about your students' understanding of the concepts and skills in this unit.

TEKS: 1.1.A, 1.1.D, 1.1.E, 1.1.G, 1.2.B, 1.2.C, 1.2.D, 1.2.E, 1.2.F, 1.2.G, 1.4.A, 1.4.B, 1.4.C



Differentiation

Every unit includes additional resources to support, strengthen, and stretch student learning. You can also assign digital resources that adjust to each student's current level of skill and understanding:

• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

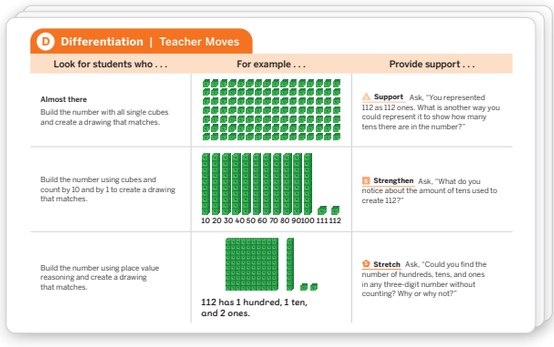
Differentiation Across the Unit

	Support Mini-Lessons	Strengthen Centers	Stretch Extensions
Sub-Unit 1 (Lessons 1–4)	• **ML 5.02:** Identifying Coins and Their Value • **ML 5.03:** Finding the Value of a Group of Pennies, Nickels, and Dimes • **ML 5.04:** Making Groups of Coins to Match a Given Value	• ***Cover Up:*** Add or Subtract 10 • ***Last Number Wins:*** Numbers to 99 by 10	• **Sub-Unit 1 Extension Activities**
Sub-Unit 2 (Lessons 5–10)	• **ML 5.05:** Composing a Hundred With Tens and Ones • **ML 5.06:** Representing Three-Digit Numbers With Hundreds, Tens, and Ones • **ML 5.07:** Representing and Identifying Three-Digit Numbers • **ML 5.08:** Finding 10 More and 10 Less • **ML 5.09:** Representing the Same Number in Different Ways • **ML 5.10:** Drawing the Same Number in Different Ways	• ***Counting Collections:*** Up to 99 • ***Cover Up:*** Add or Subtract 10, Add 7, 8, or 9 • ***Last Number Wins:*** Numbers to 99 by 1, Numbers to 99 by 10, Numbers to 120 by 1	• **Sub-Unit 2 Extension Activities**
Sub-Unit 3 (Lessons 11–13)	• **ML 5.11:** Comparing Numbers Shown in Different Ways • **ML 5.12:** Finding Numbers Greater Than or Less Than a Given Number • **ML 5.13:** Using Open Number Lines to Order Numbers	• ***Cover Up:*** Add or Subtract 10 • ***Last Number Wins:*** Numbers to 99 by 10, Numbers to 120 by 1	• **Sub-Unit 3 Extension Activities**

Differentiation Within the Lesson

Each Teacher Edition includes point-of-use differentiation suggestions to modify or adjust instruction during the lesson to accommodate the needs of all learners.

Here is one example from **Lesson 6**, where students represent numbers up to 120 using objects and drawings.



Vocabulary of the Unit

Every lesson includes opportunities for all students to access mathematical and non-mathematical vocabulary and actively participate in their own vocabulary development.

Vocabulary

New Vocabulary	Lesson
a hundred/hundreds	5
cent	2
open number line	13

Review Vocabulary
a one/ones
a ten/tens
digit
dime
estimate
greater than
less than
nickel
penny
quarter

Contextual Vocabulary	Lesson
materials	10
skewers	1

Spotlight on Vocabulary

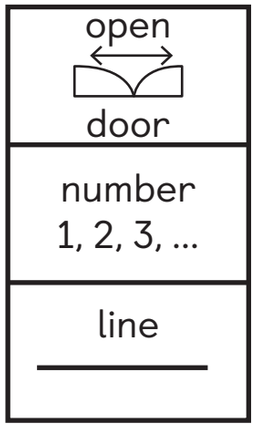
Vocabulary Strategy

In this unit, the term **open number line** refers to a blank number line on which numbers can be marked. Consider using this vocabulary strategy to help make connections.

Word Connections: Compound Words
Invite students to fold a piece of paper in 3 equal horizontal sections. Ask:

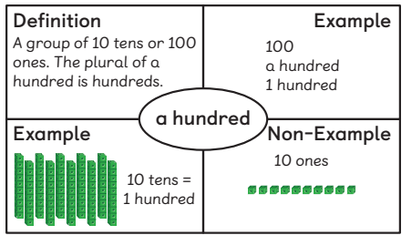
- "What 3 individual words do you see in this term? Write each word in each section on your paper."
- "What do you think it means *to open*? Draw or write an example in the top section."
- "What do you know about the word *number*? Draw or write an example in the middle section."
- "What comes to your mind when you see the word *line*? Draw or write an example in the bottom section."
- "How knowing all these parts can help you understand the term *open number line*?"

ELPS 1.B, 3.C



Frayer Models

Lesson 5 Invite students to create a Frayer Model graphic organizer that shows a definition, two examples, and one non-example of the term *a hundred*.





Additional Vocabulary Strategies and Frayer Model templates can be found in the ***Math Language Development Resources.***

Language Development

Every lesson includes embedded opportunities for all students, including those building English proficiency, to develop their mathematical language skills and engage in meaningful language interactions.

Math Language Routines

Math Language Routine	Lesson
MLR1: Stronger and Clearer Each Time	8
MLR2: Collect and Display	2, 6
MLR7: Compare and Connect	3, 4, 10–13
MLR8: Discussion Supports	1, 2, 5, 7, 9, 11

Spotlight on MLR7: Compare and Connect

In **Lesson 11, Activity 1,** students compare and connect strategies for deciding which number is greater. **ELPS 1.E, 2.B, 2.D, 2.E**

MLR **MLR7: Compare and Connect** Use the Think-Pair-Share Routine. Ask:

- "What is the same about these comparing strategies?"
- "What is different about these comparing strategies?"

Spotlight on Meaningful Language Interactions

Listening

In **Lesson 9, Activity 2**, students listen to their partner's ideas to make connections between composing and decomposing numbers up to 120.

EB **Emergent Bilinguals** As students share what they notice, add annotations to the different representations to highlight connections students make. **ELPS 2.E**

Speaking

In **Lesson 12, Activity 1**, students share how they know the numbers they chose are greater than the given number.

EB **Emergent Bilinguals** Invite students to speak using a variety of sentence lengths and grammatical structures. Some students may use longer or shorter sentences. **ELPS 2.C**

Reading

In **Lesson 3, Activity 1**, students identify coin names with pictures of coins to determine the value of a collection of coins.

EB **Emergent Bilinguals** Provide a resource sheet with pictures of coins labeled with their names to assist students with their discussion. **ELPS 4.F**

Writing

In **Lesson 7, Activity 2**, students use place value understanding to explain how different representations can show the same number.

EB **Emergent Bilinguals** To support students in writing their responses to Problem 8, allow them to use a variety of sentence lengths and sentence types. Encourage the use of connecting words, such as *because*. **ELPS 4.D**

Materials and Prep

Here are materials and resources used in this unit and where to find them.

Materials

Manipulative Kit

Hands-On

- connecting cubes **(Lessons 1–6, 8–11)**
- number cards (0–9) **(Lessons 9, 11–13)**
- number cards (0–10) **(Lessons 5–8)**
- number cards (Multiples of 10) **(Lessons 5–7)**
- ten-frames **(Lessons 2–4)**
- two-color counters **(Lessons 2–9, 11–13)**

Classroom materials

- chart paper **(Lessons 2, 6)**
- dry-erase markers **(Lessons 5–9, 11–13)**
- real or plastic coins **(Lessons 2–4)**
- markers **(Lessons 2, 6)**
- sheet protectors **(Lessons 5–9, 10–13)**
- sticky notes **(Lesson 10)**

Additional Resources

Lesson

PDF

Presentation screens

Digital

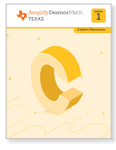
- Activity PDFs* **(Lessons 1, 2, 12)**

  *Refer to each lesson overview to see the Activity PDFs needed for the lesson

- Work Mats, Cards, and Grids

Centers

PDF



- Center PDFs*

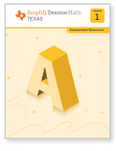
  *Refer to each sub-unit overview to see the Center PDFs needed or suggested for the sub-unit.

- Work Mats, Cards, and Grids

Assessment

PDF

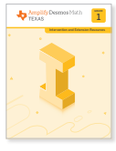
Digital



- Pre-Unit Check
- Quiz: Sub-Unit 1
- Quiz: Sub-Unit 2
- End-of-Unit Assessment
- Show What You Knows

Intervention and Extension

PDF



- Mini-Lessons (**Lessons 2–7, 9, 10, 13**)
- Extensions

Caregiver Support

These resources can be shared with students' caregivers. They provide background on the mathematics in this unit, as well as suggestions for supporting students at home.

Caregiver Hub

Unit 5 CaregiverSupport

Centers

A Accessibility

Every lesson is designed using the principles of Universal Design for Learning. Every lesson also includes support suggestions that build on students' strengths.

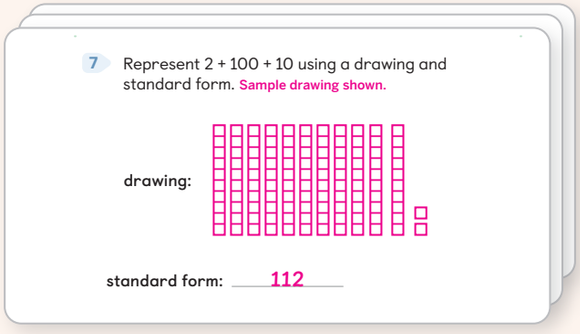
Universal Design for Learning

Here is one example from a lesson designed for Representation.

Spotlight on Building Knowledge. . .

Lesson 7, Activity 1

Students use objects, drawings, standard form and expanded form to explore numbers up to 120 as so many hundreds, so many tens, and so many ones, making explicit links between representations.



Just-In-Time Accommodations and Supports

Each Teacher Edition includes suggested supports that are based on the areas of cognitive function recognized by the Education Development Center (EDC).

Spotlight on . . .

Here are two suggestions in this unit for supporting students with Visual-spatial processing.

Lesson 8, Activity 1: These Accessibility supports are provided during the Monitor.

A **Accessibility: Visual-spatial processing** Make connecting cubes available to students to support their ability to find and represent 10 more or 10 less.

Lesson 10, Activity 1: These Accessibility supports are provided during the Monitor.

A **Accessibility: Visual-spatial processing** Guide processing by having students refer to the representations they created in Lesson 9 to guide their thinking and visualization.

Centers

Every unit includes Centers, which are fun and engaging ways for students to practice math skills. This table shows the Center stages introduced during Lessons as an Activity, used in Center Choice Time, and suggested for Beyond the Lesson or Assess and Respond Differentiation. More information can be found in the Center Resources book.

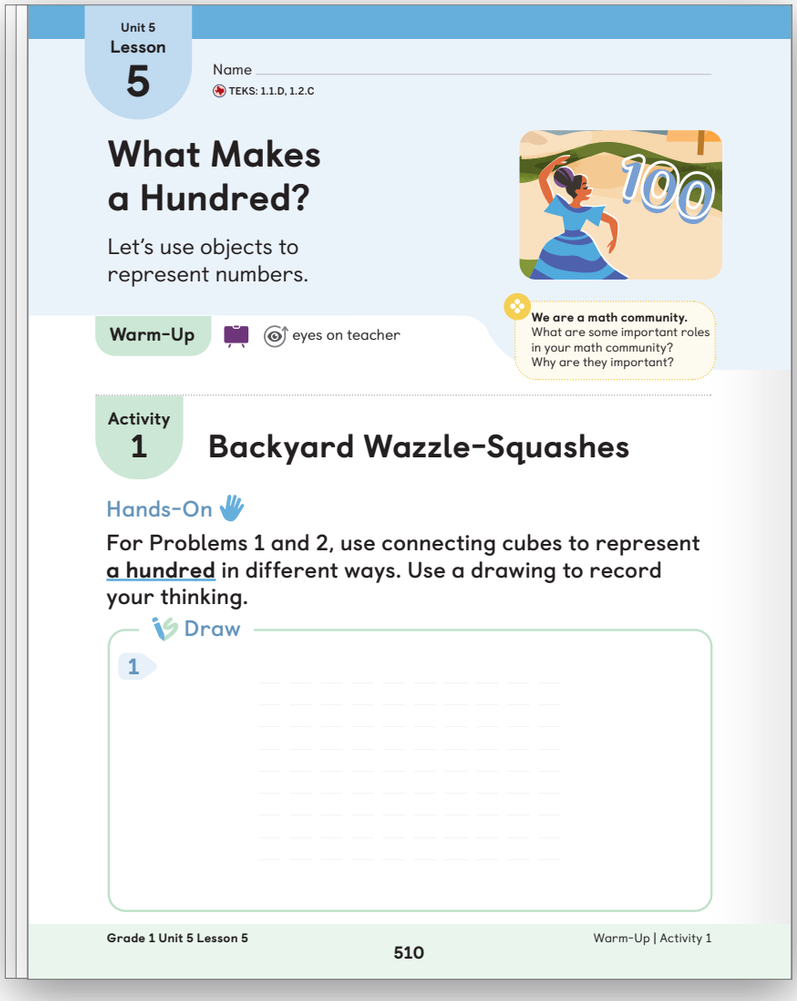
		Introduced in Activity or Center Time in	Used in Center Choice Time in	Suggested for Differentiation in	TEKS
Cover Up	Add 7, 8, or 9	Grade 1	Lessons 5–7	Lessons 6 and 7	1.3.D, 1.5.G
	Add or Subtract 10	Grade 1	Lessons 5–7	Lessons 2–13	1.5.C
	Doubles	Grade 1	Lessons 2–4 and 8		1.3.D
	Near Doubles	Grade 1	Lessons 2–4 and 8		1.3.D, 1.5.G
Counting Collections	Up to 99	Grade 1		Lessons 5 and 8–10	1.2.C
Get Your Numbers in Order	Two-digit Numbers	Grade 1	Lessons 11–13		1.2.C, 1.2.D, 1.2.F
Greatest of Them All	Two-digit Numbers	Grade 1	Lessons 9 and 11–13		1.2.E, 1.2.G
Last Number Wins	Numbers to 99 by 1	Grade 1		Lessons 6 and 7	1.5.A
	Numbers to 99 by 10	Grade 1	Lessons 5–7	Lessons 2, 3, and 8–13	1.5.C
	Numbers to 120 by 1	Grade 1	Lessons 8 and 9	Lessons 5 and 11–13	1.5.A
Mystery Number	Two-digit Numbers	Grade 1	Lessons 9 and 11–13		Building On 1.2.B
What's Behind My Back?	Making 10	Grade 1	Lessons 2–4		1.3.D, 1.5.F

Professional Learning

Here is an opportunity to deepen your understanding of the math in this unit and how to teach it.

Spotlight on Conceptual Understanding

Lesson 5, Activity 1



Unit 5
Lesson
5

Name

TEKS: 1.1.D, 1.2.C

What Makes a Hundred?

Let's use objects to represent numbers.

Warm-Up

eyes on teacher

We are a math community.
What are some important roles in your math community?
Why are they important?

Activity
1

Backyard Wazzle-Squashes

Hands-On

For Problems 1 and 2, use connecting cubes to represent a hundred in different ways. Use a drawing to record your thinking.

Draw

1

Grade 1 Unit 5 Lesson 5

510

Warm-Up | Activity 1

Try This

Put on your student hat and complete Problems 2 and 3.

Questions for reflection

- Students are asked to represent 100 again and explain how they know the value is equal to 100.
  - » What do students need to understand about the value of 100 prior to representing 100 in more than one way?
- Some students may rely on counting 100 by ones rather than using groups of tens.
  - » How might you support your students in progressing to more efficient strategies?

Other lessons that attend to structure recognition:

- **Lesson 7:** Students interpret and represent numbers up to 120 using groups of 10 with drawings and numbers.
- **Lesson 10:** Students compose and decompose numbers up to 120 using objects and pictures.

Mathematical Background

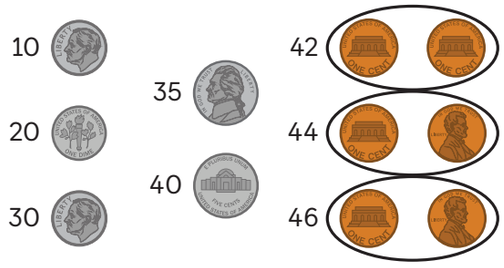
Here is an overview of the content students will learn in this unit.

Numbers to 120

Identify the value of coins and count coins.

TEKS 1.4.A, 1.4.C

- Coins have their own values and characteristics.
  - » penny (1¢), nickel (5¢), dime (10¢), quarter (25¢)
- When finding the value of a collection of pennies, nickles and/or dimes, it can be helpful to sort them before counting.
  - » It can be counted by twos, fives, and tens.



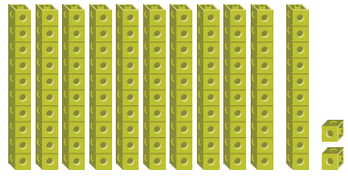
The coins have a value of 46¢.

Represent numbers up to 120.

TEKS 1.2.B, 1.2.C

- Numbers up to 120 can be represented using:
  - » Drawings
  - » Manipulatives (connecting cubes or base-ten blocks)
  - » Expanded Form
  - » Standard Form

1 **hundred** 1 ten 2 ones



112
standard
form

100 + 10 + 2
expanded
form

Order numbers up to 120 on open number lines.

TEKS 1.2.F

- Numbers can be ordered on an open number line.
  - » Place value understanding can be used to determine how far apart to space the numbers.

37 7 107



Connections to Future Learning

Here is how the content in this unit connects to where your students are headed in their math journeys.

Value Of A Collection Of Coins Up To One Dollar

In this unit, students determine the value of a collection of pennies, nickels, and/or dimes by counting by twos, fives, and tens.

In Grade 2, Unit 2, they determine the value of a collection of coins up to one dollar and represent and solve story problems involving money.

TEKS: 2.5.A, 2.5.B

Example:

Kyle found these coins in his room. How much money did he find?



2 quarters = $0.50
3 nickels = $0.15
3 dimes = $0.30
5 pennies = $0.05

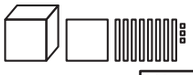
50 + 15 = 65
65 + 30 = 95
95 + 5 = $1.00

Representing Numbers up to 1,200

In this unit, students represent numbers up to 120 using objects, pictures, and expanded and standard forms. **In Grade 2, Unit 4**, students represent numbers up to 1,200 using objects, pictures, and expanded and standard forms.

TEKS: 2.2.B

Example:

Base-ten model	Amounts of units
	1 thousand 1 hundred 8 tens 3 ones
Standard form: 1,183	
In words: One thousand 1 hundred eighty-three	Expanded form: 1,000 + 100 + 80 + 3

Comparing and Ordering Numbers Within 1,200

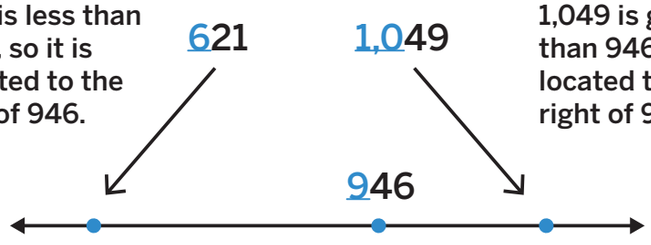
In this unit, students compare and order numbers up to 120 using an open number line. **In Grade 2, Unit 4**, students order numbers up to 1,200 on an open number line.

TEKS: 2.2.D, 2.2.E

Example:

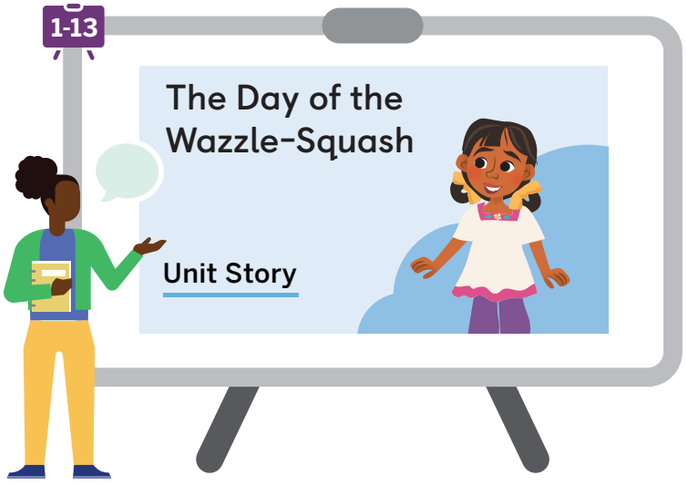
621 is less than 946, so it is located to the left of 946.

1,049 is greater than 946, so it is located to the right of 946.



Unit Story

Every unit has a Unit Story to engage students and help them make connections between math and authentic contexts.



About the Story

A storm of wazzle-squashes rains down on the town of Faraway, causing the townsfolk to grow concerned about the mess. As helpers come together to clean up the town, Carmina comes up with an idea that sparks creativity and brings people together, far and wide.

Unit Story Read-Aloud

For the **Warm-Up of Lesson 1,** read aloud the Unit Story. Use the **Presentation Screens** for Lesson 1 to display the story images to introduce students to the characters.

The Math in the Story

Numbers to 120

Students discover how Carmina and the other Faraway townsfolk come together to fix the wazzle-squash mess by helping them solve problems that elicit a variety of strategies for adding within 100.

Throughout the unit . . .

- Students solve story problems involving addition about how the people in the town use the wazzle-squashes.
- Students develop written methods for representing their thinking as they find sums related to cleaning up the town and making festival preparations.

Math Connections

Students will connect the math of the unit to the Unit Story in these activities:

- **Lesson 1, Activity**
- **Lesson 2, Activities 1 and 2**
- **Lesson 3, Activities 1 and 2**
- **Lesson 4, Activities 1 and 2**
- **Lesson 5, Activities 1 and 2**
- **Lesson 6, Activities 1 and 2**
- **Lesson 7, Activities 1 and 2**
- **Lesson 8, Activity 1**
- **Lesson 9, Activities 1 and 2**
- **Lesson 10, Activity 1**
- **Lesson 11, Activities 1 and 2**
- **Lesson 12, Activities 1 and 2**
- **Lesson 13, Activity 1**

Math Identity and Community

The Unit Story provides an opportunity for students to reflect on their math identity and share their experiences of being a part of a math community. Throughout the unit, you may wish to support students in their mathematical journey by asking them to reflect on the Math Identity and Community questions provided at the start of each lesson.

I can be all of me in math class.

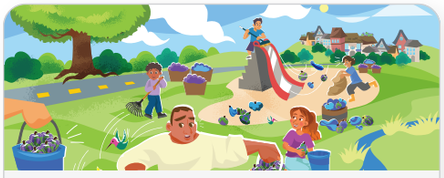


What are some examples of two- or three-digit numbers you see in your community? **(Lesson 6)**



Why might mathematicians show their ideas in more than 1 way? **(Lesson 9)**

Story Moments





Lesson 2 Activity 1

Math Connection

Students help the mayor keep track of how many buckets have been gathered by determining if she added an amount of tens or an amount of ones to a two-digit number.





Lesson 4 Activity 2

Math Connection

Students help Carmina pay and play the last game by using nickels and dimes to show 100 cents in different ways.





Lesson 5 Activity 1

Math Connection

Students help Carmina organize a group of 100 wazzle-squashes in different ways by showing different amounts of tens and ones.



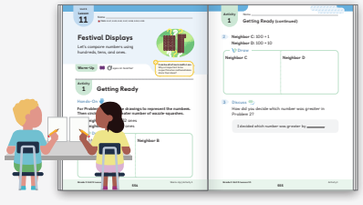


Lesson 8 Activity 1

Math Connection

Students use patterns in counting wazzle-squashes to find 10 more or 10 less than a given two-digit number.





Lesson 11 Activity 1

Math Connection

Students help the townsfolk count wazzle-squashes and compare which neighbor has the greater amount to determine who will need more space to display their wazzle-squash creations at the festival.





Lesson 13 Activity 1

Math Connection

Students order cards with different numbers of wazzle-squashes on open number lines to compare and determine who the townsperson with the most wazzles is.

Read this aloud during the Warm-Up of Lesson 1, using the lesson's Presentation Screens.

Read-Aloud The Day of the Wazzle-Squash

2



Thunder rumbled; the sky was dark.

Wazzle-squashes of all shapes and sizes tumbled down onto the town of Faraway. Some were round. Some were long. Some were blue. Some were green with purple spots.

What a noise they made:

Wheehoo! Wheehoo!, whistling through the air.

Galump-barump! as they bounced off the roofs.

Ask: *"What do you notice? What do you wonder?"*

3



The folks of Faraway were astonished. They had seen snow, and rain, and even ice fall from the sky before. But never wazzle-squashes.

But wonder soon turned into concern. The squashes piled up on the streets. There were squash in drains, and in trees, and in the fields and on top of houses. They filled the rivers and clogged the roads. Soon the townsfolk couldn't step out their door without squishing on a wazzle-squash.

4



No one knew what to do. Some wanted to push the wazzle-squashes into the ocean. Others wanted to move to a new town down the road, where there were no wazzle-squashes. Some even thought the best thing was to ignore the wazzle-squashes altogether!

The townsfolk argued for weeks, and for weeks not a single wazzle-squash budged from their spots. Then little Carmina down by the marina came up with a plan of her own.

5



"It's true the wazzle-squashes are a great big mess," she said. "But what if we could turn that mess into something wonderful?"

The townsfolk scratched their heads. *What did she mean? How was it possible?*

"Think of these wazzle-squash as a gift. Let's celebrate that gift with a Wazzle-squash Festival!" Carmina said.

6



She described a huge event with music and dancing and food and games—all to show off all the clever ways the townsfolk could use the wazzle-squash.

The town listened with interest. At first the idea seemed silly. But as they started to imagine it, the more excited they became.

Ask: *"What do you notice? What do you wonder?"*

7



So the whole town got to work. They took their bags and buckets and gathered every wazzle-squash they could find.

They plucked them from the rivers. They plucked them from the trees. They plucked them from the roofs and streets and parks and playgrounds till there was not a single wazzle-squash left in sight.

8



Day and night, the townsfolk worked, dreaming up fantastic things to do with their wazzle-squashes.

On the day of the festival, Carmina was excited to see what her fellow townsfolk had made.

9



She toured the stalls with her Aunt Marta. What a sight it was!

The baker had baked dozens of wazzle-squash pies. Children weaved past, clutching glasses of wazzle-squash juice and eating roasted wazzle-squash from long, pointy skewers.

10



But it wasn't just food the townsfolk prepared.

There were wazzle-squash sculptures, carved so precise. There were wazzle-squash paintings, made from wazzle-squash ink. People paraded past in wazzle-squash jewelry, and flashy wazzle-squash hats.

11



Carmina watched teams playing wazzle-squash ball, bowling down wazzle-squash pins with wazzle-squash stones.

A wazzle-squash band played a jaunty tune, banging on their wazzle-squash drums and strumming a wazzle-squash lute.

Ask: *"What do you notice? What do you wonder?"*

12



Carmina was overcome with joy. The Wazzle-squash Festival WAS a huge success. She had never known how talented and creative all her friends and neighbors were. And best of all, not a single wazzle-squash had gone to waste.

13



Where the wazzle-squash had come from, nobody ever figured out. But now, whenever a storm cloud rolls over Faraway, Carmina and the others look out their windows and wait—not scared or worried, but excited for another chance to take a problem and stand it on its head.

Assess and Respond

Support, strengthen, and stretch learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Pre-Unit Check

Independent | 20 min

Facilitation: Assign the Pre-Unit Check to learn more about your students' understanding of foundational concepts and skills that will support them in Sub-Unit 1. Read aloud the problems to students as needed.

Item Analysis

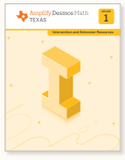
Problem	Concept or skill	Preparation for	DOK	TEKS
1	Representing a teen number	Lesson 2	2	1.2.C 1.1.D
2	Identifying and naming coins	Lesson 2	1	1.4.A 1.1.A

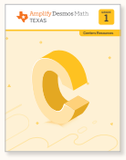
Assessment Resources



- Student Print Assessments
- Answer Keys and Rubrics

Differentiation Resources





Intervention and Extension Resources include:

- Mini-Lessons • Extensions

Centers Resources includes:

- Centers

Assessment Resource PDF

Name _____ Date _____

Pre-Unit Check Unit 1.5

1 Represent 36 as tens and a number of ones.

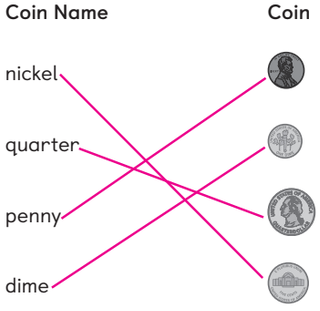
Draw

Sample drawing shown.



2 Draw a line to match the coin to its picture.

Sample work shown.



190

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D Differentiation (Pre-Unit Check)

To **Strengthen** and **Stretch** students' learning, refer to the differentiation resources suggested throughout this Sub-Unit.

Sub-Unit Goals	Problem	Respond to Student Thinking
Preparation for Sub-Unit 1: Identify and name the value of pennies, nickels, dimes, and quarters using the cent symbol.	2	**Support** • **Mini-Lesson:** *Identifying Coins and Their Values* (ML 5.02) • **Teacher Move:** Students will have more opportunities to practice identifying, grouping and adding coins throughout Sub-Unit 1. • **Teacher Move:** After identifying and naming, encourage students to record the value of each coin and include the cents symbol.
Preparation for Sub-Unit 2: Use objects and pictorial models to compose and decompose numbers up to 120 as so many hundreds, so many tens, and so many ones.	1	**Support** • **Mini-Lesson:** *Representing Teen Numbers as a Ten and Some Ones* (ML 3.05) • **Teacher Move:** Review the problem. Then provide another opportunity for students to represent teen numbers as a ten and some ones using drawings or base-ten units.

Watch Your Knowledge Grow (Optional)

Purpose: Students rate their understanding of the concepts that they will explore in this unit, prior to beginning the unit. Return to this page at the end of the unit and invite them to rate their understanding again to see how their knowledge has grown.

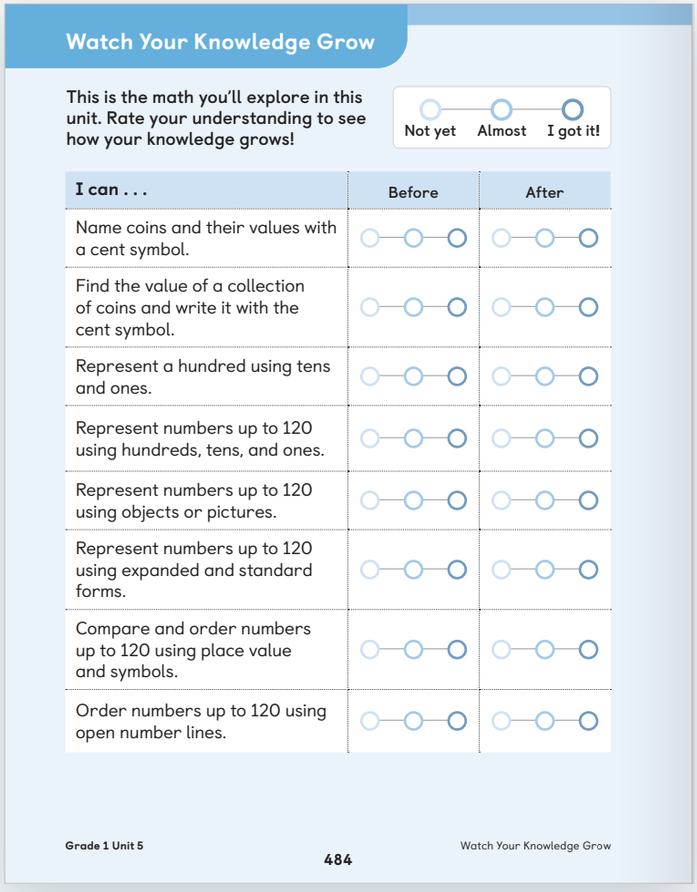
Read aloud the instructions. Let students know they are about to explore these math concepts in the upcoming unit.

Invite students to rate their understanding of each concept prior to beginning the unit. Let them know that they will return to this page at the end of the unit to rate their understanding again. They will be able to see how their knowledge has grown! Consider asking:

- "How can we find the value of a collection of coins?"
- "How can we represent numbers up to 120 with objects, drawings, words, and numbers?"
- "How can we find 10 more and 10 less than a number up to 120?"

EB **Emergent Bilinguals** Invite students to let you know if they are not familiar with some of the words or topics by using sentence frames such as "I don't know what ___ means yet." Then invite them to circle or highlight words that may be unfamiliar to them. Let them know that it is a normal part of learning to not be familiar with words or concepts when they are first learning about them. When they return to the page at the end of the unit, celebrate how their language development has grown. ELPS 3.A, 3.E

Math Identity and Community Let students know that it is a normal part of learning to not understand or be familiar with a topic prior to learning about it. Celebrate the number of 'Not yet' and 'Almost' that were selected. Remind students that this means their knowledge will increase greatly after this unit.



Watch Your Knowledge Grow

This is the math you'll explore in this unit. Rate your understanding to see how your knowledge grows!

Not yet Almost I got it!

I can . . .	Before	After
Name coins and their values with a cent symbol.		
Find the value of a collection of coins and write it with the cent symbol.		
Represent a hundred using tens and ones.		
Represent numbers up to 120 using hundreds, tens, and ones.		
Represent numbers up to 120 using objects or pictures.		
Represent numbers up to 120 using expanded and standard forms.		
Compare and order numbers up to 120 using place value and symbols.		
Order numbers up to 120 using open number lines.		

Grade 1 Unit 5 484 Watch Your Knowledge Grow

Sub-Unit 1

Coins



Sub-Unit 1 Goals

- Identify and name the values of pennies, nickels, dimes, and quarters using the cent symbol.
- Describe and use the relationships between coins to count a collection of pennies, nickels, and/or dimes.

Progression of TEKS in Sub-Unit 1

- **Lessons 1–4:** Students identify pennies, nickels, and dimes by value, describe the relationship between the coins, and count by 2, 5, and 10 to find the value of a collection of coins.

Sub-Unit 1 Progression	Lesson 1*	Lesson 2	Lesson 3	Lesson 4
Number and Operations				
TEKS 1.4.A	○	●	○	○
TEKS 1.4.B	○	●	○	○
TEKS 1.4.C	●	○	●	●
Algebraic Reasoning				
TEKS 1.5.B	○	○	●	●

*This lesson builds toward the standard shown.

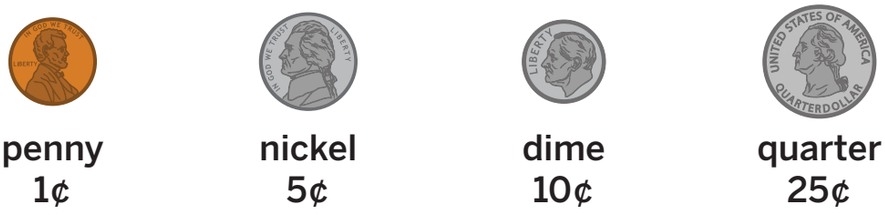
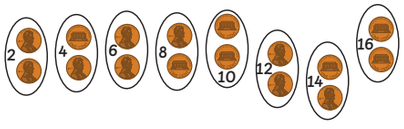
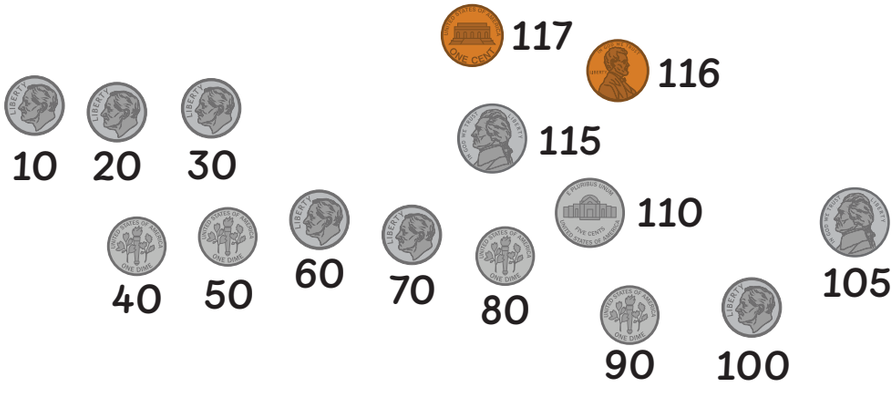
Coming up Next

- **Sub-Unit 2, Lessons 5–10:**
  - » Number and Operations: **TEKS 1.2.B, 1.2.C, 1.5.A**
  - » Algebraic Reasoning: **TEKS 1.5.C**
- **Sub-Unit 3, Lessons 11–13:**
  - » Number and Operations: **TEKS 1.2.B, 1.2.D, 1.2.E, 1.2.F, 1.2.G, 1.3.D**

Math That Matters Most

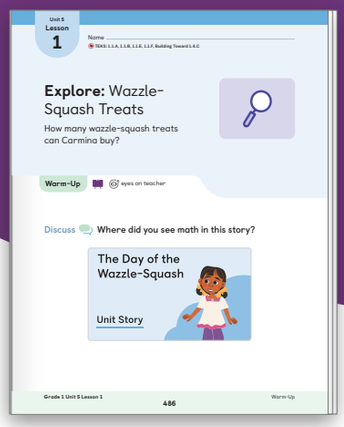
Sub-Unit 1: Identify the name and value of pennies, nickels, dimes, and quarters and skip-count by twos, fives, and tens to determine the value of like and mixed collections of pennies, nickels, and dimes.

Progression of Strategies, Skills, or Language

Progression	For example . . .
Identify the value of pennies, nickels, dimes, and quarters.	
Use skip-counting by twos, fives, and tens to determine the value of like coins.	 answer: 16¢  answer: 120¢
Use skip-counting by twos, fives, and tens to determine the value of mixed coins.	

Unit 5
Lesson
1

Student Edition pages and Presentation Screens support learning in this lesson.



Explore: Wazzle-Squash Treats

How many wazzle-squash treats can Carmina buy?

Key Concepts

Today's Goal

1. **Goal:** Skip count by 5 and 10 to determine the total number of objects.
2. **Language Goal:** Describe how skip counting helps find the total number in a set. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

To build curiosity and interest from the start of the unit, students engage in a non-routine task that elicits multiple strategies and solutions. They apply their own knowledge and language to a new mathematical task. Giving students a non-routine task with multiple answers and solution paths allows them to truly engage in the math process standards and invites all students to see themselves as mathematicians. **(TEKS 1.1.A)**

In this Exploration, students find combinations of 10 and 5 that make a larger sum to make connections between skip counting and counting coins. **(TEKS 1.1.E, 1.1.F)**

This exploration provides students with an opportunity to deepen their understanding of place value concepts and skip counting, which they will later apply when representing one hundred with groups of tens and ones.

Caregiver Connection

Students may enjoy naming and writing quantities within 120 at home. Consider encouraging families to ask students questions about the number of hundreds, tens, and ones in the values.

TEKS

Building Toward

1.4.C

Use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.

Math Process Standards: 1.1.A, 1.1.B, 1.1.E, 1.1.F

ELPS: 1.A, 1.B, 1.E, 2.B, 2.C, 2.E, 2.F, 3.H

Building On

K.4.A

Lesson at a Glance 60 min

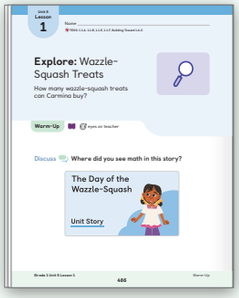
TEKS: 1.1.A, 1.1.B, 1.1.E, 1.1.F, Building Toward 1.4.C

Warm-Up

Whole Class | 15 min

Students use the **Notice and Wonder routine**, after hearing the Unit Story read aloud. Because there is no single correct response, this invitational routine allows all students to share their mathematical curiosity about the unit narrative to which they will return throughout the unit.

Materials: Unit Story, *The Day of the Wazzle-Squash*

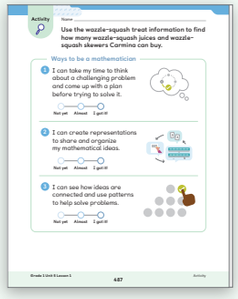


Activity 1

Pairs | 45 min

Students use their understanding of place value and skip counting to find possible combinations of wazzle-squash treats that Carmina can buy with 95 cents.

Manipulative Kit: connecting cubes (optional)
Materials: Activity PDF, *Explore Organizer* PDF (optional)



Opportunities for Extension *(optional)*

Students could extend this exploration to other values less than 100 cents. Students could pick a two-digit number and find different combinations of treats that could be purchased for the new value.

Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity** to support math language acquisition.

- ✓ Cognates
- ✓ Sentence frames
- ✓ Visuals

ELPS 1.E, 2.B, 2.C, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

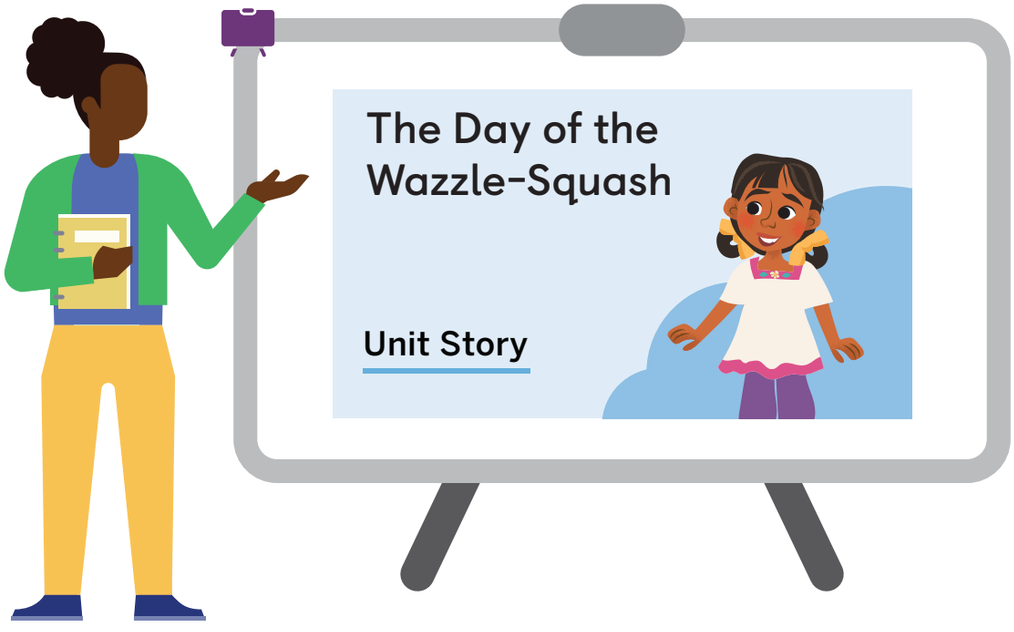
Whole Class | 15 min

Presentation Screens



Warm-Up Notice and Wonder

Purpose: Students hear a read aloud of *The Day of the Wazzle-Squash*. They notice and wonder about mathematical situations in the story.



1 Launch

Display the cover of the Unit Story, *The Day of the Wazzle-Squash*.

Use the Think-Pair-Share routine. Activate students' background and prior experiences by asking, "What do you know about storms?"

Read aloud the Unit Story from this Teacher Edition while displaying the illustrations on Screens 2–13. Demonstrate reading with prosody to illustrate expression, rising and falling intonation patterns, pitch, and timing. ELPS 1.A, 1.E, 3.H

Use the Notice and Wonder routine.

Pause on Screens 2, 6, and 11. Ask, "What do you notice? What do you wonder?"



2 Connect

Use the Think-Pair-Share routine. Ask, "Where did you see math in the story?

Say, "In this unit, you will use what you know about tens and ones to find sums. Just like Carmina and the townsfolk learned, there can be more than 1 way to solve a problem. Today you will help Carmina figure out how many wazzle-squash treats she can buy."

Students might say . . . ELPS 2.B

I notice the wazzle-squashes are different colors.

I notice the wazzle-squashes are different sizes.

I wonder how many wazzle-squashes there are.

I wonder what the wazzle-squashes taste like.

Pairs | 45 min

Activity How many wazzle-squash juices and skewers can Carmina buy?

Purpose: Students apply their understanding of place value and skip counting by 5 and 10 to interpret given information and determine how many wazzle-squash treats Carmina can buy with 95 cents.

Presentation Screens



Materials

Lesson Resources:

- Distribute the Activity PDF to each pair.
- Provide students with access to the *Explore Organizer* PDF during the Connect (optional).

Manipulative Kit:

- Provide students with access to connecting cubes (optional).

Make It Your Own!

This activity is written with the example of wazzle-squashes. If there is something more relevant to your students, the question can be changed to account for students' interests and developing their math community and identity.

1 Launch



Display the illustration of Carmina and Aunt Marta touring the stalls.

Say, "Carmina has 95 cents to spend on treats at the Wazzle-squash Festival. *Cents* are a type of money we use to buy things. You will learn more about it in the next lesson. Carmina wants to buy some wazzle-squash juice and skewers to share with Aunt Marta and some friends."

EB **Emergent Bilinguals:** Consider sharing a picture of skewers to increase access to the task. ELPS 1.B

Display and read aloud the information.

Say, "Use the information to find different amounts of wazzle-squash juices and skewers that Carmina could buy."

A **Accessibility: Visual-spatial processing** Provide connecting cubes students can choose to use during the activity.

2 Monitor



As students have complete the activity, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What are you trying to find?"
- Ask, "How could you use the price of the wazzle-squash treats to help you decide how many of each Carmina could buy?"

3 Connect



Say, "You will meet with another pair to share what you figured out about how many wazzle-squash treats Carmina could buy."

MLR **MLR8: Discussion Supports — Sentence Frames** ELPS 2.C
Display these sentence frames and invite students to use connecting words, such as "and" and "because."

- "We bought ___ juices and ___ skewers because . . ."
- "We know she can buy this amount of treats because . . . "

Invite students to share their reflections. Provide the *Explore Organizer* PDF to those students who wish to write or draw their reflections.

Key Takeaway: Say, "You used what you know about skip counting to find different numbers of wazzle-squash juice and wazzle-squash skewers that Carmina could buy. In this unit, you will use skip counting to help count coins and to understand hundreds, tens, and ones."

Student Edition

Activity

Name _____

Use the wazzle-squash treat information to find how many wazzle-squash juices and wazzle-squash skewers Carmina can buy.

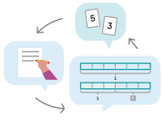
Ways to be a mathematician

1. I can take my time to think about a challenging problem and come up with a plan before trying to solve it.



Not yet Almost I got it!

2. I can create representations to share and organize my mathematical ideas.



Not yet Almost I got it!

3. I can see how ideas are connected and use patterns to help solve problems.



Not yet Almost I got it!

Grade 1 Unit 5 Lesson 1 487 Activity

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Find a combination of 95 items by counting each item as having a value of 1.	**90 juices and 5 skewers makes 95.**	**Support** Ask, "How much does each treat cost?"
Skip count by 5 and 10 to find a combination of wazzle-squash treats equivalent to 95 cents.	**9 juices is 10, 20, 30, 40, 50, 60, 70, 80, 90 cents. Then 1 skewer is 95 cents.**	**Strengthen** Ask, "What is another combination of juices and skewers that Carmina could buy?"
Skip count by 5 and 10 to find more than one combination of wazzle-squash treats equivalent to 95 cents.	**9 juices is 10, 20, 30, 40, 50, 60, 70, 80, 90 cents. Then 1 skewer is 95 cents.** **or** **8 juices is 10, 20, 30, 40, 50, 60, 70, 80 cents. Then 3 skewers is 85, 90, 95 cents.**	**Stretch** Ask, "What is a number of wazzle-squash treats that Carmina could not buy? How do you know?"

Activity Sample Student Work

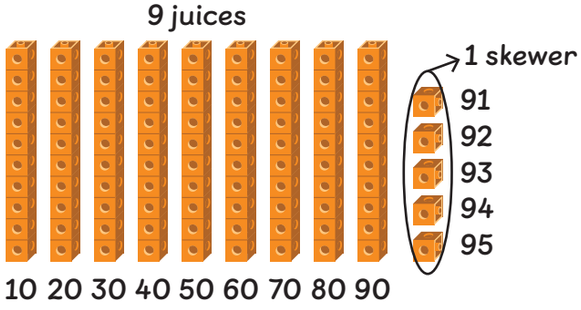
Students will likely represent their answer to the Explore question in different ways. Because this is the beginning of the unit, there is no expectation for students to sort or represent their responses in a specific way.

How many wazzle-squash juices and skewers can Carmina buy?

Sample student responses:

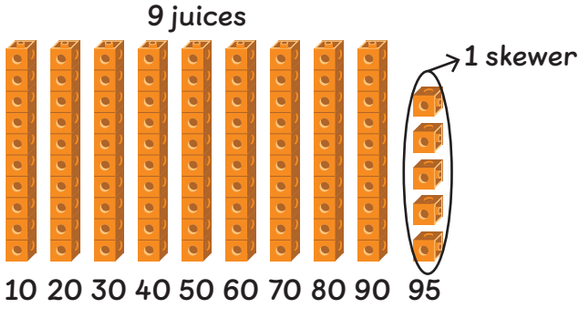
Sample response 1

I counted by 10 and 1 to find 9 juices and 1 skewer.



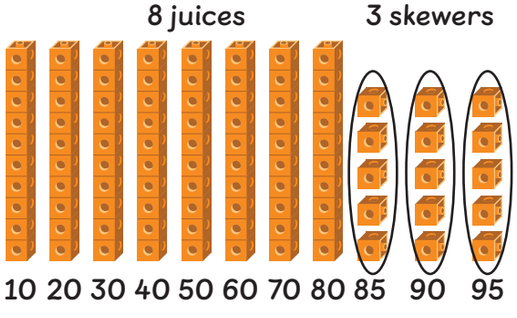
Sample response 2

I counted by 10 and 5 to find 9 juices and 1 skewer.



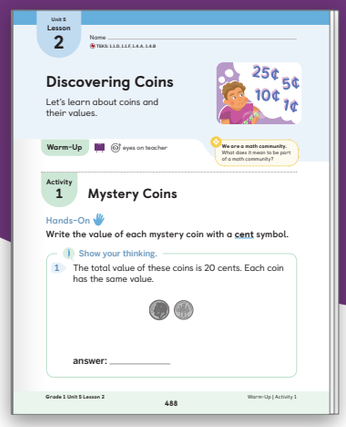
Sample response 3

I counted by 10 and 5 to find 8 juices and 3 skewers.



Unit 5
Lesson
2

Student Edition pages and Presentation Screens support learning in this lesson.



Discovering Coins

Identifying Coins by Value and Describing the Relationships Among Coins

Let's learn about coins and their values.

Key Concepts

Today's Goals

1. **Goal:** Identify pennies, nickels, dimes, and quarters by their values.
2. **Goal:** Find relationships among coins by comparing their values.
3. **Language Goal:** Explain how different coins are related to each other. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

Connections and Coherence

Students apply their prior knowledge of skip counting to discover the values of individual coins. They attend to the individual physical characteristics of pennies, nickels, dimes, and quarters and their values. They learn that a **cent** is a unit of money then explore the relationships among coins by comparing their values. **(TEKS 1.1.D, 1.1.G)**

Prior Learning

In Unit 3, students explored concepts of financial literacy around saving and spending money on goods and services.

Future Learning

In Lesson 3, students will count by 2, 5, and 10 to find the value of a collection of coins.

Integrating Rigor in Student Thinking

- Students build **fluency** with skip counting by 5 and 10.
- Students develop their **conceptual understanding** of using the value of an individual coin to find the total value of a group of like coins.
- Students develop their **conceptual understanding** of the relationships between coins by comparing their values.

Vocabulary

New Vocabulary

cent

Review Vocabulary

penny

nickel

dime

quarter

TEKS

Addressing

1.4.A

Identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them.

Also Addressing: 1.4.B

Math Process Standards: 1.1.D, 1.1.F

ELPS: 1.A, 1.B, 2.B, 2.E, 3.A, 3.B, 3.C, 3.D, 3.F

Building On	Building Toward
K.4.A	2.5.B

Building Math Identity

We are a math community.
What does it mean to be part of a math community?

Invite students to reflect on this question as they complete this lesson.

Lesson at a Glance

60 min

TEKS: 1.1.D, 1.1.F, 1.4.A, 1.4.B

Warm-Up

Whole Class | 10 min

Students use the **Notice and Wonder** routine to make observations about items with price tags showing values with a cent symbol. The term **cent** is introduced and students learn how to write the cent symbol after a value.

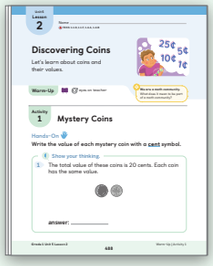


Activity 1

Pairs | 15 min

Students interpret and contextualize groups of coins and determine their individual values. The language students use to describe each coin is collected and recorded on a chart that will be used throughout the sub-unit.

Manipulative Kit: connecting cubes (optional)
Materials: chart paper, markers, *Coins* chart (teacher made), real or plastic coins (optional), *Coins Chart* (sample) PDF, *Coin Images* PDF
Additional Prep Cut out: *Coin Images* PDF

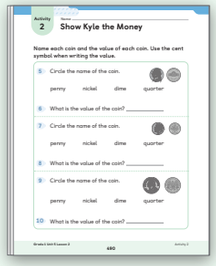


Activity 2

Pairs | 15 min

Students identify pennies, nickels, dimes, and quarters by name. They name coins and write their values using a cent symbol. They explore coin relationships by comparing coin values.

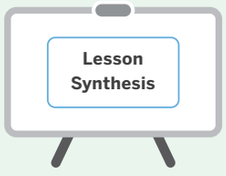
Manipulative Kit: connecting cubes (optional)
Materials: *Coins* chart (from Activity 1) *Coins to Cut and Count* PDF (optional)
Additional Prep Cut out: *Coins to Cut and Count* PDF



Synthesis

Whole Class | 5 min

Students review and reflect on the characteristics and values of pennies, nickels, dimes, and quarters.



Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by identifying the names and values of pennies, nickels, dimes, and quarters.

Materials: *Show What You Know* PDF



Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting and describing quantities using comparative language.

- Cover Up
- What's Behind My Back?



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 2, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

ELPS 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 2.F, 4.C, 4.D, 4.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** and **write** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** and **write** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** and **write** using a variety of sentence types.	Students **listen** to spoken English and **speak** and **write** using longer sentences. Exemplar responses are provided.

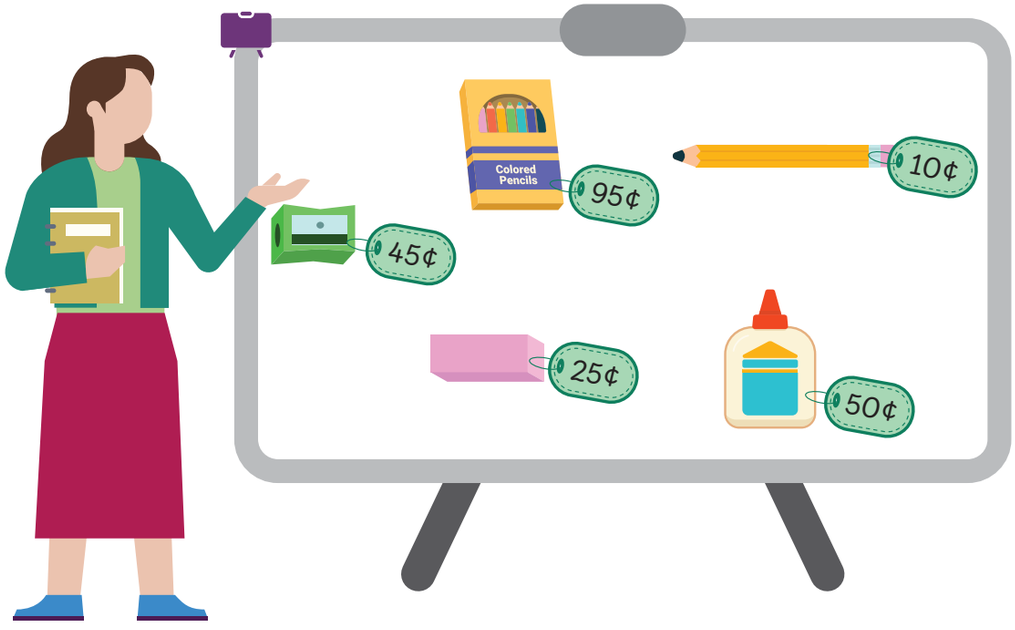
Whole Class | 10 min

Presentation Screen



Warm-Up Notice and Wonder

Purpose: Students examine a selection of items with price tags to learn the cent symbol and activate prior knowledge about money.



1 Launch

Display the image.

Use the Notice and Wonder routine.

Use the Think-Pair-Share routine. Ask, "What do you notice? What do you wonder?"



2 Connect

Record students' responses as they share.

Say, "When you write the value of something or how much it costs, you label it with cents. A **cent** is a unit of money. You use the cent symbol after the number to show that it represents cents."

Demonstrate writing a ¢ symbol.

Students might say . . . ELPS 2.B

I notice pictures of school supplies.

I notice each picture is labeled with a number.

I wonder what the little c's are next to the numbers.

I wonder why some numbers have a 5 in the ones place and some have a 0 in the ones place.

Pairs | 15 min

Activity 1 Mystery Coins

Purpose: Students reason about groups of like coins with given total values to identify individual coins and their values.

Presentation Screens



Materials

Lesson Resources:

- Use chart paper, markers, and the Activity 1 PDF, *Coins Chart* (sample) to create the chart during the Connect. Add the pre-cut coins to the chart from the Visual Display PDF, *Coin Images* during the discussion.

Manipulative Kit:

- Provide students with access to connecting cube towers of 10 and single cubes (optional).

Short on time? Consider omitting Problem 4.

1 Launch



Say, "Kyle wanted to use his money to help the Pineapple Street Library. He noticed that many of the coins in his piggy bank looked the same. Kyle's dad told him that coins that look the same have the same value, so Kyle organized coins that looked alike into groups."

Provide access to connecting cubes.

Read aloud the directions.

A **Accessibility: Visual-spatial processing** On a separate piece of paper, draw circles large enough for students to place groups of connecting cubes inside to represent the coins for each problem.

2 Monitor



After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What information is given in the problem? What are you trying to figure out?"
- Ask, "How could you use connecting cubes to show the value of each coin?"

3 Connect



Invite pairs to share how they found the values of the mystery coins for Problems 1–3.

Say, "Kyle's mystery coins are a dime, nickel, and a penny."

Display the *Coins* chart.

Say, "A quarter has a value of 25 cents."

Use the Think-Pair-Share routine. Ask, "How would you describe each coin?"

MLR **MLR2: Collect and Display** ELPS 2.B

Support the acquisition of new words and high-frequency words by collecting student language used to describe each coin, such as *silver, Abraham Lincoln, copper, Thomas Jefferson, value, cents,* and add each word under the corresponding coin on the chart. Add the images of the coins to the *Coins* chart.

Key Takeaway: Say, "A cent is a unit of money. A penny is a coin worth 1 cent. A nickel is a coin worth 5 cents, a dime is a coin worth 10 cents, and a quarter is a coin worth 25 cents. You can use the symbol (¢) to show the value of a coin or an amount of money in cents. For example, 1¢ means 1 cent, 5¢ means 5 cents, and 25¢ means 25 cents."

Unit 5 Lesson 2

Name _____

TEKS: 1.1.D, 1.1.F, 1.4.A, 1.4.B

Discovering Coins

Let's learn about coins and their values.



Warm-Up eyes on teacher

We are a math community. What does it mean to be part of a math community?

Activity 1 Mystery Coins

Hands-On

Write the value of each mystery coin with a cent symbol.

Sample work shown for Problems 1–3.

Show your thinking.

1 The total value of these coins is 20 cents. Each coin has the same value.



10 20

answer: 10¢

Activity 1

Name _____

Mystery Coins (continued)

For Problems 2 and 3, write the value of each mystery coin with a cent symbol.

Show your thinking.

2 The total value of these coins is 10 cents. Each coin has the same value.



5 10

answer: 5¢

3 The total value of these coins is 3 cents. Each coin has the same value.



1 2 3

answer: 1¢

4 Discuss

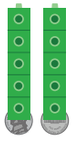
Share your responses with your partner. Be ready to share how you found the value of each mystery coin.

Oral activity: No writing expected. Sample response shown.

I noticed Kyle had 20¢ and 2 coins. I know there are 2 tens in 20 so each dime is 10¢.

D Differentiation | Teacher Moves

Presentation Screens

Look for students who . . .	For example . . .	Provide support . . .
Almost there Name the type of coins for a group.	*I think they are nickels because I know nickels are silver.*	**Support** Ask, "How could you represent the value of each coin if you think they are ____ (pennies, nickels, or dimes)?"
Use objects or drawings to find the value of each coin.	 *I took 10 cubes and placed cubes on each coin until I ran out of cubes. I saw that there were 5 cubes on each coin.*	**Stretch** Have students create a group of mystery coins with a total value of 50 cents for their partner to solve.
Know the value of a coin and use the representation to find the individual value of the coins.	 5 10 *I think these coins are nickels because I can count by 5 twice to get to 10.*	

Pairs | 15 min

Activity 2 Show Kyle the Money

Purpose: Students name and label the values of coins, then explore relationships among coins by comparing their values.

Presentation Screens



Materials

Lesson Resources

- If real or plastic coins are not available, distribute the pre-cut coins from the *Coins to Cut and Count* PDF.

Classroom materials

- Display the *Coins* chart during the activity.
- Provide students with access to real or plastic coins (optional).

1 Launch



Say, "Val showed Kyle some of the groups of coins that people used to pay for treats at her stand."

Read aloud the directions.

EB **Emergent Bilinguals** Demonstrate awareness of print concepts by showing how Activity 2 continues on the next page. ELPS 3.A

Provide access to printable, plastic, or real coins.

A **Accessibility: Memory and attention** Invite students to reference the *Coins* chart from the previous activity to support identification of the coins and their values.

2 Monitor



After students have completed **Problem 13**, refer to the D *Differentiation | Teacher Moves* table on the following page.

If students need help getting started . . .

- Ask, "What information do you know about this coin?"
- Ask, "How could you use the *Coins* chart to help find the value?"

EB **Emergent Bilinguals** Consider providing students with their own copy of the Coins chart and encourage them to point to each coin and read each coin name before starting Problem 5. ELPS 3.D, 3.F

3 Connect



Invite students to share their responses to Problem 13. Select and sequence their responses in the order shown in the *Differentiation* table.

MLR **MLR8: Discussion Supports — Pressing for Details** ELPS 2.E

As students share, press for details in their reasoning. For example:

- If a student says, "I put the penny first". . .
- Press for details in their reasoning by asking, "Why did you put the penny first? How did you compare the coins?"

Use the Think-Pair-Share routine. Say, "Explain how you know which coin has the greatest value."

EB **Emergent Bilinguals** Invite students to share their responses with a partner before sharing with the class. Monitor students' responses for increasing specificity, such as the name of the coin. ELPS 2.E

Key Takeaway: Say, "A quarter has the greatest value. A penny has the least value. You could compare coins by thinking about their values."

Student Edition

Activity 2

Name _____

Show Kyle the Money

Name each coin and the value of each coin. Use the cent symbol when writing the value.

5 Circle the name of the coin.



penny **nickel** dime quarter

6 What is the value of the coin? 5¢

7 Circle the name of the coin.



penny nickel **dime** quarter

8 What is the value of the coin? 10¢

9 Circle the name of the coin.



penny nickel dime **quarter**

10 What is the value of the coin? 25¢

Activity 2

Name _____

Show Kyle the Money (continued)

11 Circle the name of the coin.



penny nickel dime quarter

12 What is the value of the coin? 1¢

13 Put the coins in order from least to greatest by value.

nickel	quarter	penny	dime
penny	nickel	dime	quarter

14 Discuss

Explain to a partner how you arranged the coins in Problem 13.

Oral activity: No writing expected. Sample response shown.

I put the nickel before the dime because 2 nickels have the same value as 1 dime. I also know that 1 dime is made of 10 pennies.

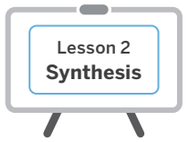
Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Arrange the coins in order by size.	dime penny nickel penny	**Support** Ask, "What is the value of each coin?"
Almost there Arrange the coins in order from greatest to least.	quarter dime nickel penny	**Support** Ask, "Is the value of the penny greater than or less than the value of the nickel?"
Arrange the coins in order by value.	penny nickel dime quarter	**Stretch** Ask, "How do you know the coins are in order from least to greatest by value?"

Whole Class | 5 min

Presentation Screen



Synthesis

Lesson Takeaway: Pennies, nickels, dimes, and quarters have their own values and characteristics. You can compare coins by thinking about their values.



Display the Synthesis Screen.

Say, "Val showed Kyle 2 groups of coins. Kyle said the groups of coins have the same value because the coins in both groups are the same color."

Use the Think-Pair-Share routine. Ask, "Do you agree with Kyle? Why or why not?"

Say, "Pennies, nickels, dimes, and quarters each have their own characteristics and values. You could use the characteristics of a coin to help you know the value of each type of coin and compare them."

Formalize vocabulary: A **cent** is a unit of money that is represented with a number and the cent symbol.

(optional) **Consider using the Word Structure: Cognates routine** with the word **cent**. Display or distribute copies of the *English/Spanish Cognates* PDF from the *Math Language Development Resources*. Consider asking, "How are the spellings and pronunciations for terms *cent* and *centavo* alike? How are they different?" **ELPS 1.A, 1.B, 3.B, 3.C**

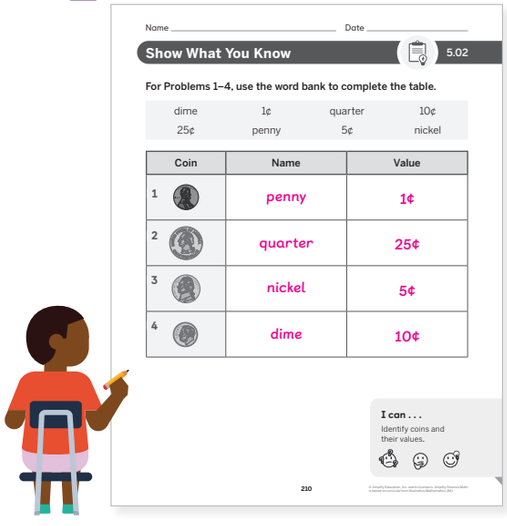
Refer to the *Math Language Development Resources* for a description of this routine and for more vocabulary support.

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.02

For Problems 1–4, use the word bank to complete the table.

dime	1¢	quarter	10¢
25¢	penny	5¢	nickel

	Coin	Name	Value
1		penny	1¢
2		quarter	25¢
3		nickel	5¢
4		dime	10¢

I can . . .
Identify coins and their values.

210

Lesson Goals

1. **Goal:** Identify pennies, nickels, dimes, and quarters by their values.
   - » In the *Show What You Know*, students labeled the values of coins.
2. **Goal:** Find relationships among coins by comparing their values.
3. **Language Goal:** Explain how different coins are related to each other. **(Listening and Speaking)** **ELPS 1.B, 2.B, 2.E**
   - » In the *Show What You Know*, students labeled the coins by name.

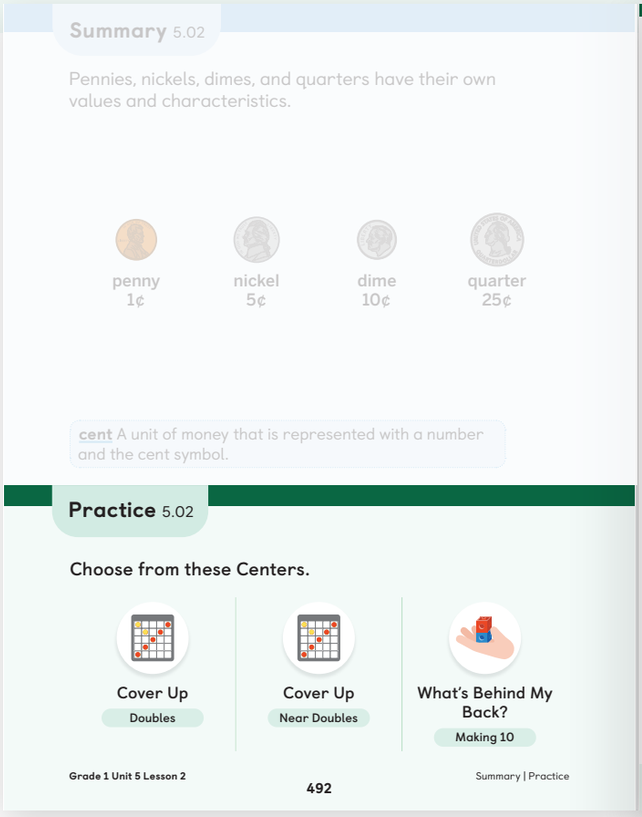
Differentiation See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.02

Pennies, nickels, dimes, and quarters have their own values and characteristics.

penny 1¢ | nickel 5¢ | dime 10¢ | quarter 25¢

cent A unit of money that is represented with a number and the cent symbol.

Practice 5.02

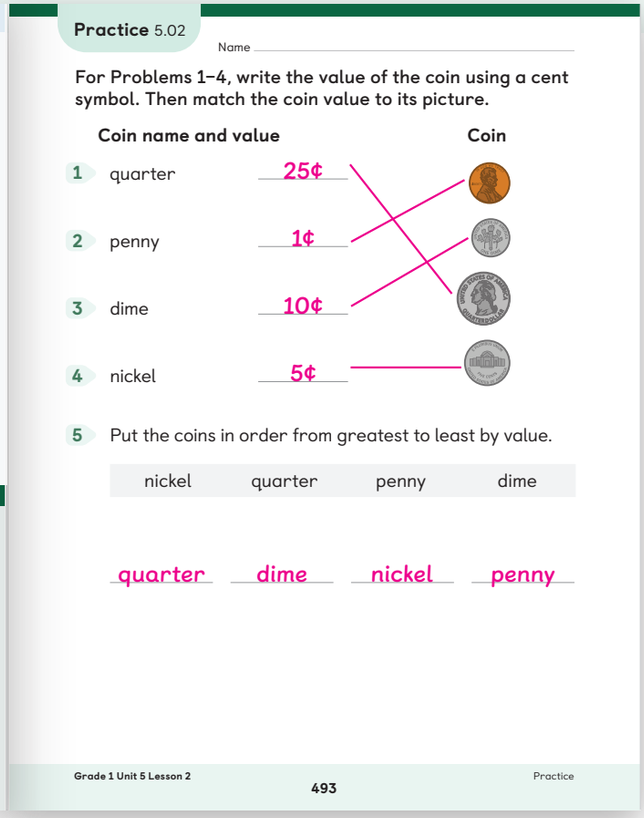
Choose from these Centers.

Cover Up — Doubles

Cover Up — Near Doubles

What's Behind My Back? — Making 10

Grade 1 Unit 5 Lesson 2 492 Summary | Practice



Practice 5.02

Name _____

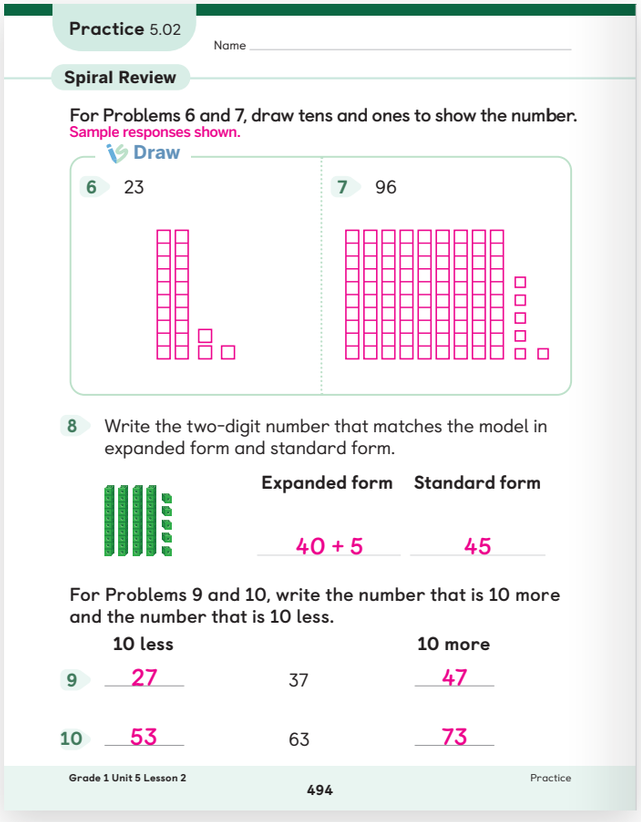
For Problems 1–4, write the value of the coin using a cent symbol. Then match the coin value to its picture.

	Coin name and value		Coin
1	quarter	25¢	
2	penny	1¢	
3	dime	10¢	
4	nickel	5¢	

5 Put the coins in order from greatest to least by value.

nickel	quarter	penny	dime
quarter	dime	nickel	penny

Grade 1 Unit 5 Lesson 2 493 Practice



Practice 5.02

Name _____

Spiral Review

For Problems 6 and 7, draw tens and ones to show the number.
Sample responses shown.

Draw

6 23

7 96

8 Write the two-digit number that matches the model in expanded form and standard form.

Expanded form	Standard form
40 + 5	45

For Problems 9 and 10, write the number that is 10 more and the number that is 10 less.

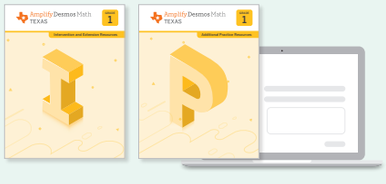
	10 less		10 more
9	27	37	47
10	53	63	73

Grade 1 Unit 5 Lesson 2 494 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–5	1	1.4.A, 1.4.B
Spiral Review			
	6–8	1	1.2.C
Fluency	9, 10	1	1.5.C

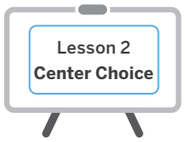
Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Presentation Screen



Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Cover Up

Doubles

Pairs | 15 min | 1.3.D

Students double a number between 0 and 10.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 2, Sub-Unit 4.

Cover Up

Near Doubles

Pairs | 15 min | 1.3.D, 1.5.G

Students double a number between 0 and 10 and then add or subtract 1.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 3, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

What's Behind My Back?

Making 10

Pairs | 15 min | 1.3.D, 1.5.F

Students find how many cubes are removed from a tower of 10 and write equations to represent how they solved for the unknown.

Materials

- 10-frames, connecting cubes (10 per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

Corresponds with the checklist from Unit 2, Sub-Unit 3.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 2

Lesson Goal: Identify pennies, nickels, dimes, and quarters by their values.

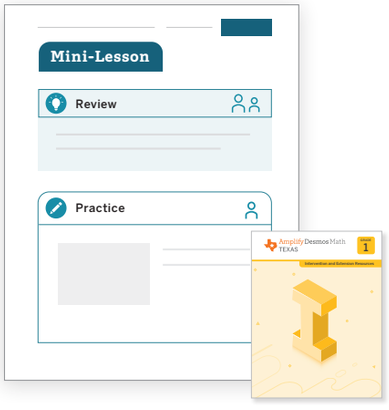
Support

Provide targeted intervention for students by using these resources.

If students identify the values of some of the coins:

Respond:

- Assign the *Identifying Coins and Their Values* Mini-Lesson. | 15 min
- Review the *Coins* chart from Activity 1.



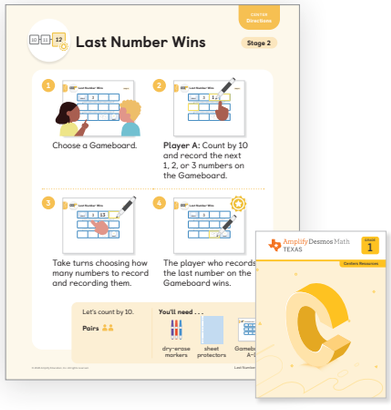
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students accurately identify the values of all the coins:

Respond:

- Invite students to play this **Center.** | 15 min
  Last Number Wins: Numbers to 99 by 10
- Have students complete **Lesson 2 Practice.** | 15 min
- **Item Bank**



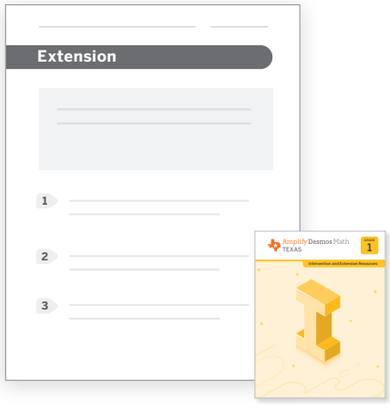
Stretch

Challenge students and extend their learning with these resources.

If students know the values of all the coins based on prior knowledge:

Respond:

- Invite students to explore the **Sub-Unit 1 Extension Activities.** | 15 min
- Revisit Activity 1 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* **table.** | 5 min



Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates, e.g., **cent**/**centavo**
- Frayer Model templates
- Vocabulary routines



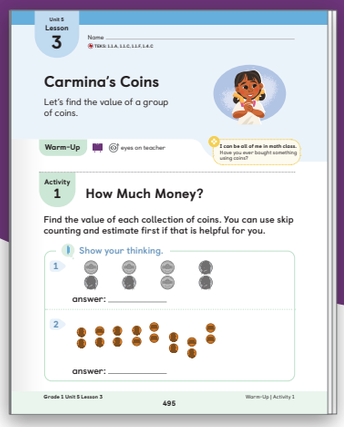


Professional Learning

What did you learn about your students' understanding of money during this lesson? What did you notice in their work from today's lesson that you might leverage in a future lesson?

Unit 5
Lesson
3

Student Edition pages and Presentation Screens support learning in this lesson.



Carmina's Coins

Counting by 2, 5, and 10 to Find the Value of a Collection of Coins

Let's find the value of a group of coins.

Key Concepts

Today's Goals

1. **Goal:** Determine the value of a collection of pennies, nickels, and dimes by counting by 2, 5, and 10.

2. **Language Goal:** Explain strategies for finding the value of a collection of coins. **(Listening and Speaking)** **ELPS 1.E, 2.E, 2.F**

Connections and Coherence

Students apply their knowledge of coin values to discover ways to find the values of groups of like and mixed coins. They recognize that they can count by twos, fives, and tens when counting pennies, nickels, and dimes. They apply that knowledge to estimate and count groups of like coins and then strategize how to count groups of mixed coins. They discuss their strategies and recognize that some ways of counting are more efficient than others. **(TEKS 1.1.A, 1.1.F)**

Prior Learning

In Lesson 2, students identified coins, including pennies, nickels, and dimes by value, and described relationships between them.

Future Learning

In Lesson 4, students will make collections of coins with a given value by counting by 2, 5, or 10, using pennies, nickels and dimes. They will show 100 cents in multiple ways to support a developing understanding of the concept of one hundred.

Integrating Rigor in Student Thinking

- Students build **fluency** with counting by 2, 5, and 10.
- Students develop their **conceptual understanding** of using the value of an individual coin to find the total value of a group of like and mixed coins.

Vocabulary

Review Vocabulary

cent

penny

nickel

dime

TEKS

Addressing

1.4.C

Use relationships to count by twos, fives and tens to determine the value of a collection of pennies, nickels, and/or dimes.

Also Addressing: **1.5.B**

Math Process Standards: 1.1.A, 1.1.C, 1.1.F

ELPS: 1.E, 2.B, 2.D, 2.E, 2.F, 3.F

Building On	Building Toward
K.4.A	**2.5.A**

Building Math Identity

I can be all of me in math class.
Have you ever bought something using coins?

Invite students to reflect on this question as they complete this lesson.

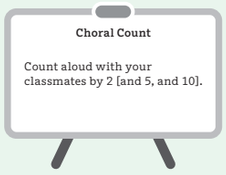
Lesson at a Glance 60 min

TEKS: 1.1.A, 1.1.C, 1.1.F, 1.4.C, 1.5.B

Warm-Up Fluency

Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 2 starting at 6, and continue on by 5, then 10. As the count is recorded, students may notice patterns or structures in the count such as the numbers growing faster when the count is by 10, and consider why those patterns or structures show up.

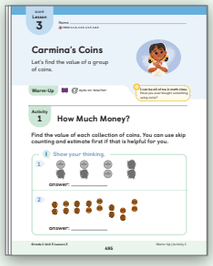


Activity 1

Pairs | 15 min

Students consider that different coins have different values. They use that understanding to find the value of a group of like coins. They discuss their strategies for counting the group of coins with a partner.

Materials: Unit Story, *The Day of the Wazzle-Squash*, real or plastic coins (optional), *Coins to Cut and Count* PDF (from Lesson 2, optional)

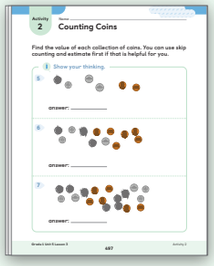


Activity 2

Pairs | 15 min

Students apply their knowledge of counting coins by 2, 5, and 10 from Activity 1 to find the value of a mixed group of coins. They discuss their strategies for counting the group of coins with a partner.

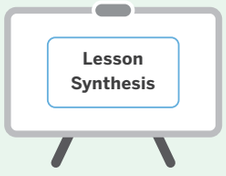
Materials: real or plastic coins (optional), *Coins to Cut and Count* PDF (from Lesson 2, optional)



Synthesis

Whole Class | 5 min

Students review and reflect on strategies to find the value of a group of coins, including counting by 2, 5, and 10.

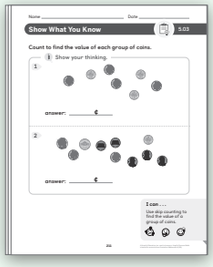


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by counting to find the value of a collection of coins.

Materials: *Show What You Know* PDF

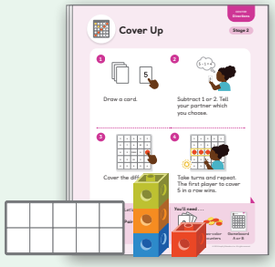


Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting and describing quantities using comparative language.

- Cover Up
- What's Behind My Back?



Math Language Development

EB Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

Whole Class | 10 min

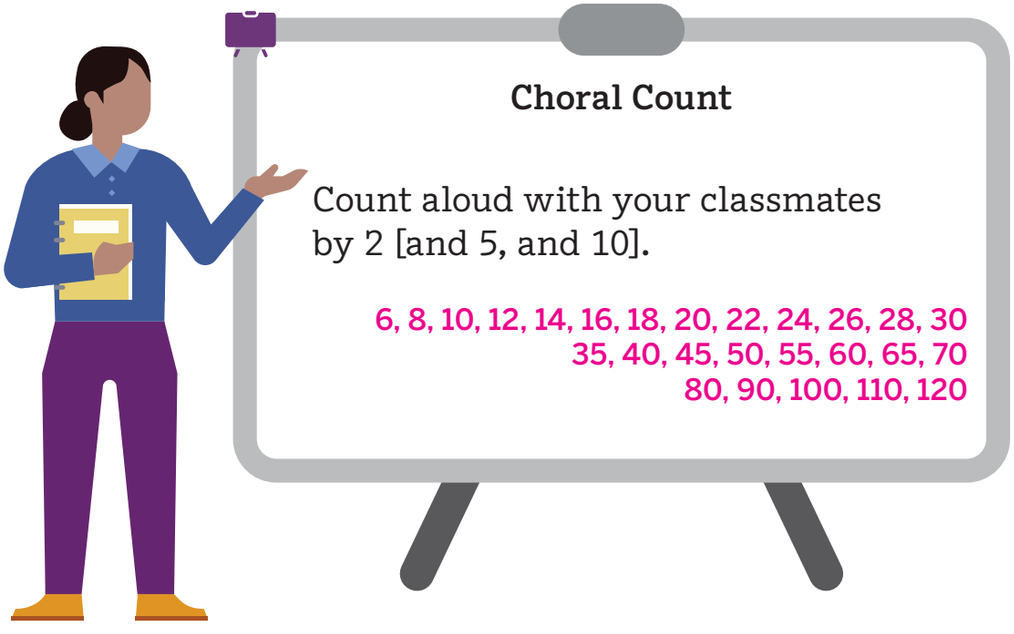
Presentation Screen



Warm-Up Choral Count

Fluency

Purpose: Students count by 2, 5, and 10 to prepare for counting coins.





1 Launch

Use the Choral Count routine.

Say, "Let's count by 2, starting at 6 and ending at 30."

Record each number as students count, so the recorded numbers are displayed as shown on the slide.

Say:

- "Now, let's count on but switch to counting by 5, ending at 70."
- "Now, let's count on but switch to counting by 10, ending at 120."

Ask:

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

2 Connect

Record students' responses as they share. Consider highlighting different patterns using different colors.

Say, "When you count by a greater number, you get to bigger numbers sooner than when we count by a smaller number."

Students might say . . ELPS 2.E

There are more numbers when we count by 2.

The numbers get bigger faster when we count by 10.

When we count by 10 all the numbers end in 0.

After 100, all the numbers have three digits.

Pairs | 15 min

Activity 1 How Much Money?

Purpose: Students recognize they can count by 2, 5, or 10 to find the value of a group of like coins (pennies, nickels, or dimes).

Presentation Screens



Materials

Lesson Resources:

- Display page 9 of the Unit Story, *The Day of the Wazzle-Squash* during the Launch.
- If real or plastic coins are not available, distribute the pre-cut coins from the *Coins to Cut and Count* PDF (from Lesson 2)

Classroom materials:

- Provide students with access to real or plastic coins (optional).

1 Launch



Display page 9 of the Unit Story, *The Day of the Wazzle-Squash.*

Say, "As Carmina and her aunt continued to tour the stalls, they saw people selling sculptures and jewelry made of wazzle-squashes. Carmina was very excited to buy some of them using the money she saved. She had pennies, nickels, and dimes in her coin pouch. She wanted to know how much she had and organized coins that looked alike into groups as shown in Problems 1–3."

Provide access to real, plastic, or pre-cut coins.

Say, "Find the value of each group of coins. Then, tell your partner how you found the values."

EB **Emergent Bilinguals** To help students demonstrate comprehension of the names of coins, provide a resource sheet with pictures of coins labeled with their names. ELPS 3.F

2 Monitor



After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What is the value of each coin?"
- Ask, "How could you find the value of all the coins together?"

3 Connect



MLR **MLR7: Compare and Connect** ELPS 1.E, 2.B, 2.D, 2.E

Display Problems 1–3.

Use the Think-Pair-Share routine. Ask:

- "How does skip counting help you find the value of a collection of coins?"
- "How did knowing the value of the coins help you choose how to skip count?"

Say, "Different coins have different values that can be helpful when you are finding the value of a collection of coins."

Key Takeaway: Say, "When counting a collection of coins, it can be helpful to skip count by twos, fives, or tens. For example, you may count nickels by 5 and dimes by 10. You may also count 2 pennies together to count by 2, or count 2 nickels together to count by 10."

Unit 5 Lesson 3

Name _____

TEKS: 1.1.A, 1.1.C, 1.1.F, 1.4.C

Carmina's Coins

Let's find the value of a group of coins.



Warm-Up eyes on teacher

I can be all of me in math class. Have you ever bought something using coins?

Activity 1 How Much Money?

Find the value of each collection of coins. You can use skip counting and estimate first if that is helpful for you.

Sample work shown.

Show your thinking.

1 5 15 25 35 10 20 30 40

answer: 40¢

2 2 4 6 8 10 12 14 16

answer: 16¢

Activity 1

Name _____

How Much Money? (continued)

Show your thinking.

3 10 30 50 70 90 110 20 40 60 80 100 120

answer: 120¢

4 Discuss

Tell your partner how you found the value of the coins in each problem.

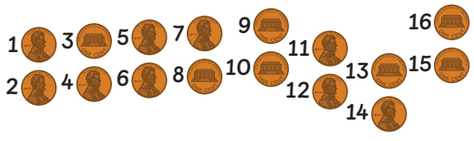
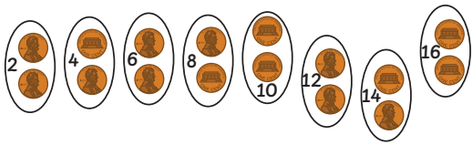
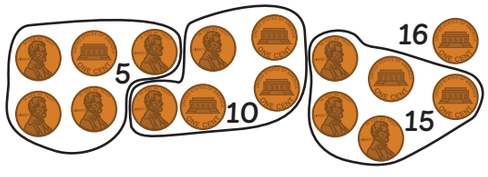
In Problem _____, I found the value of the coins by _____.

Oral activity: No writing expected. Sample response shown.

In Problem 1, I found the value of the nickels by counting by 5.
In Problem 2, I found the value of the pennies by counting by 2.
In Problem 3, I found the value of the dimes by counting by 10.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Count the coins by one.		**Support** Ask, "Could you count these coins in a different way, other than by 1?"
Count the coins by two.		**Stretch** Ask, "Is there another group of coins you could think of that have the same value?"
Count the coins by five, then one.		

Pairs | 15 min

Activity 2 Counting Coins

Purpose: Students count by 2, 5, and 10 to find the values of groups of mixed coins (pennies, nickels, and dimes).

Presentation Screens



Materials

Lesson Resources:

- If real or plastic coins are not available, distribute the pre-cut coins from the *Coins to Cut and Count* PDF (from Lesson 2)

Classroom materials:

- Provide students with access to real or plastic coins (optional).

Short on time? Consider omitting Problem 8.

1 Launch



Say, "Carmina wanted to buy a sculpture, a pair of earrings, and a painting. At each stall, she made a payment using the coins, as shown in Problems 5–7. Let's see how we could use what we learned about counting coins by 2, 5, and 10 to find the value of the coins Carmina is paying with."

Have students complete Problem 5 and pause for a class discussion before completing Problems 6–8.

Ask:

- "How could you count the coins?"
- "How did your strategy change now that there are different types of coins in the group?"

Say, "Count to find the values of the groups of coins in Problems 6 and 7. Then, you'll tell your partner how you counted to find the value in Problem 7."

A **Accessibility: Conceptual processing** Guide processing by inviting students to write the value on or above the coins.

2 Monitor



After students have completed **Problem 7**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What is the value of each coin?"
- Ask, "How could you use skip counting to find the value of the whole group of coins?"

3 Connect



Invite students to share their strategies for Problem 7. Select and sequence their responses in the order shown in Rows 2 and 3 of the *Differentiation* table.

Ask, "How is sorting coins before you count helpful when finding the value of a collection?"

EB **Emergent Bilinguals:** Use wait time to allow students to formulate and rehearse a response to the question. Encourage them to ask for additional details, as needed. ELPS 1.E, 2.F

Say, "There are many ways to count to find the values of groups of different coins if you know the value of each coin."

Key Takeaway: Say, "When counting a collection of pennies, nickels, and dimes, it could be helpful to sort the coins by their value."

Activity 2

Name _____

Counting Coins

Find the value of each collection of coins. You can use skip counting and estimate first if that is helpful for you.

Sample work shown.

Show your thinking.

5



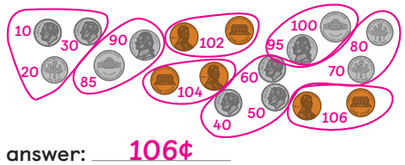
answer: 32¢

6



answer: 56¢

7



answer: 106¢

Activity 2

Name _____

Counting Coins (continued)

8 Discuss

Tell your partner how you counted to find the value of the coins in problem 7.

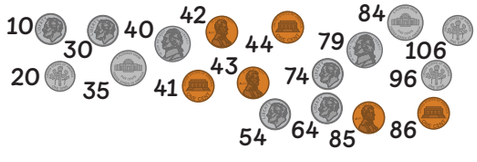
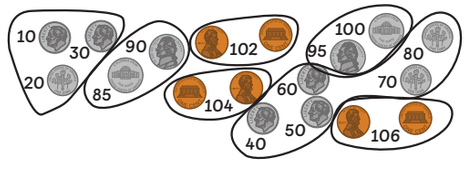
I found the value of the coins by _____.

Oral activity: No writing expected. Sample response shown.

I found the value of the coins by counting all the dimes by 10, then counting by 5 for each nickel, and counting by 2 for the pennies.

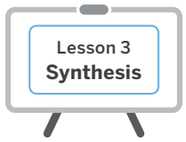
Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Count the coins by one.	 answer: 18 ¢	**Support** Ask, "Are these coins all the same?"
Count the coins from left to right.	 answer: 106 ¢	**Strengthen** Ask, "How could grouping and counting the coins by value first change how you might count them?"
Sort the coins by value and skip count by 2, 5, and 10 to determine the value of the collection.	 answer: 106 ¢	**Stretch** Ask, "Is there a different group of coins that could make the same value?"

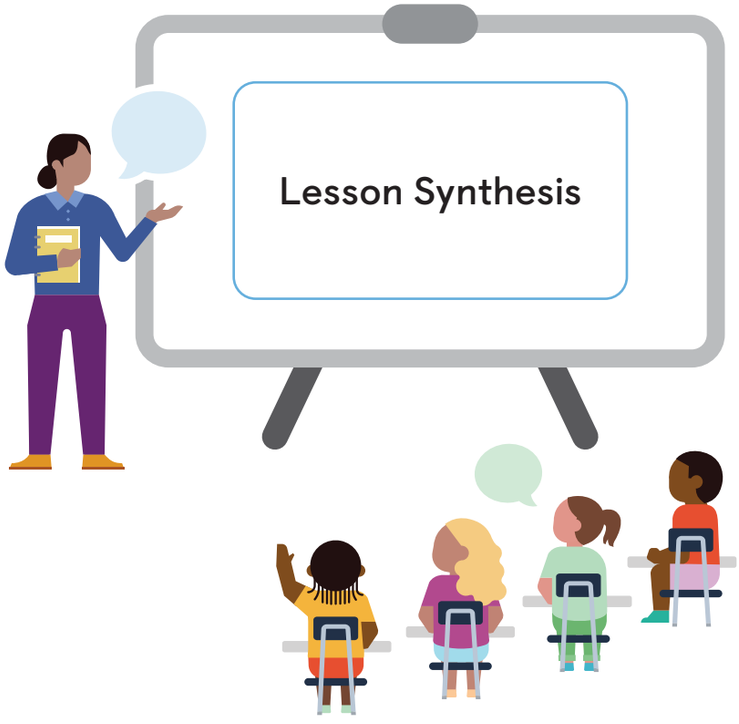
Whole Class | 5 min

Presentation Screen



Synthesis

Lesson Takeaway: Skip counting by 2, 5, and 10 can be used to find the value of a collection of pennies, nickels, and dimes.



Say, "A collection of different coins can be sorted first before finding the value."

Use the Think-Pair-Share routine. Ask, "How could you use skip counting to count the coins?"

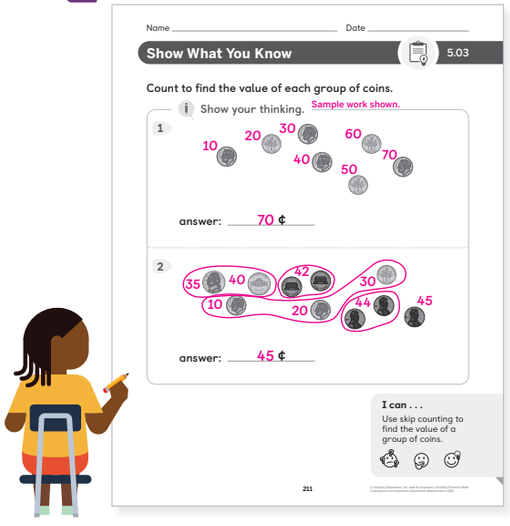
Say, "We can count pennies, nickels and dimes by 2, 5, and 10 to find the total value."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

PDF Show What You Know PDF


Name _____ Date _____

Show What You Know 5.03

Count to find the value of each group of coins.

Show your thinking. Sample work shown.

1

10 20 30 40 50 60 70

answer: 70 ¢

2

35 40 42 10 20 30 44 45

answer: 45 ¢

I can . . .
Use skip counting to find the value of a group of coins.

211

Lesson Goals

1. **Goal:** Determine the value of a collection of pennies, nickels, and dimes by counting by 2, 5, and 10.
   - In Problems 1 and 2 in the *Show What You Know*, students skip counted to find the value of a group of coins.
2. **Language Goal:** Explain strategies for finding the value of a collection of coins. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

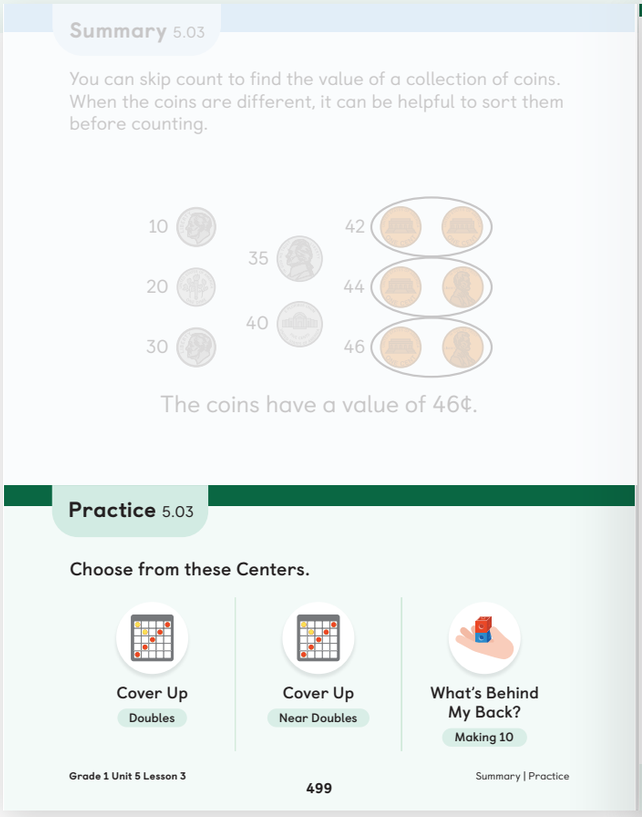
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.03

You can skip count to find the value of a collection of coins. When the coins are different, it can be helpful to sort them before counting.

10, 20, 30, 35, 40, 42, 44, 46

The coins have a value of 46¢.

Practice 5.03

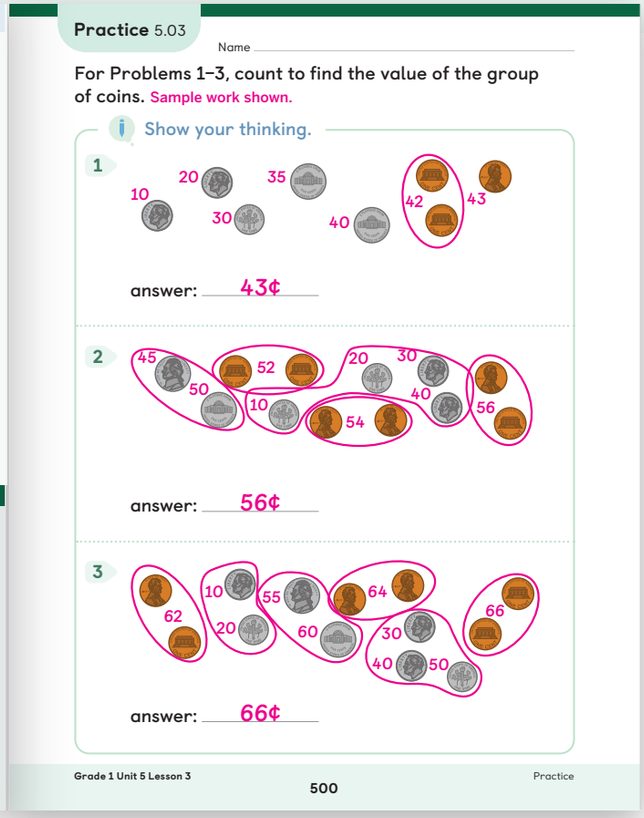
Choose from these Centers.

Cover Up — Doubles

Cover Up — Near Doubles

What's Behind My Back? — Making 10

Grade 1 Unit 5 Lesson 3 499 Summary | Practice



Practice 5.03

Name _____

For Problems 1–3, count to find the value of the group of coins. Sample work shown.

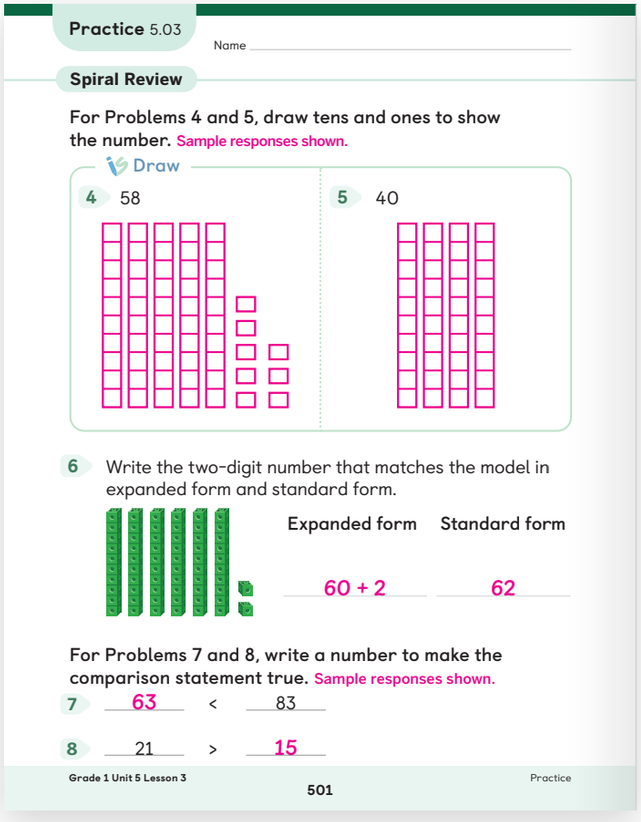
Show your thinking.

1 answer: 43¢

2 answer: 56¢

3 answer: 66¢

Grade 1 Unit 5 Lesson 3 500 Practice



Practice 5.03

Name _____

Spiral Review

For Problems 4 and 5, draw tens and ones to show the number. Sample responses shown.

Draw

4 58

5 40

6 Write the two-digit number that matches the model in expanded form and standard form.

Expanded form: 60 + 2 Standard form: 62

For Problems 7 and 8, write a number to make the comparison statement true. Sample responses shown.

7 63 < 83

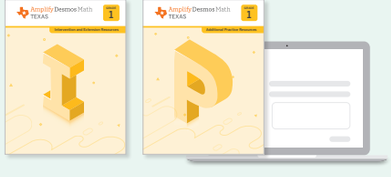
8 21 > 15

Grade 1 Unit 5 Lesson 3 501 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.4.C
Spiral Review			
	4–6	1	1.2.C
	7, 8	1	1.2.D

Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Presentation Screen



Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Cover Up

Doubles

Pairs | 15 min | 1.3.D

Students double a number between 0 and 10.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 2, Sub-Unit 4.

Cover Up

Near Doubles

Pairs | 15 min | 1.3.D, 1.5.G

Students double a number between 0 and 10 and then add or subtract 1.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 3, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

What's Behind My Back?

Making 10

Pairs | 15 min | 1.3.D, 1.5.F

Students find how many cubes are removed from a tower of 10 and write equations to represent how they solved for the unknown.

Materials

- 10-frames, connecting cubes (10 per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

Corresponds with the checklist from Unit 2, Sub-Unit 3.

D Differentiation | Teacher Moves

Work with students in their centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 3

Lesson Goal: Determine the value of a collection of pennies, nickels, and dimes by counting by 2, 5, and 10.

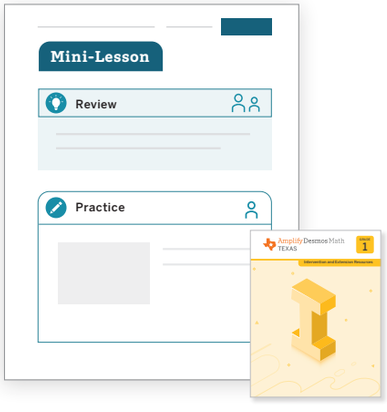
Support

Provide targeted intervention for students by using these resources.

If students recognize the value of some coins:

Respond:

- Assign the *Finding the Value of a Group of Pennies, Nickels, and Dimes* Mini-Lesson. | 15 min
- Revisit Lesson 2.



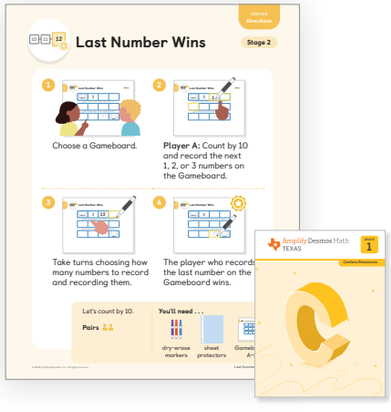
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students count by 2, 5, and 10 to find the value of a collection of mixed coins:

Respond:

- Invite students to play these **Centers.** | 15 min
  Last Number Wins: Numbers to 99 by 10
  Cover Up: Add or Subtract 10
- Have students complete **Lesson 3 Practice.** | 15 min
- **Item Bank**



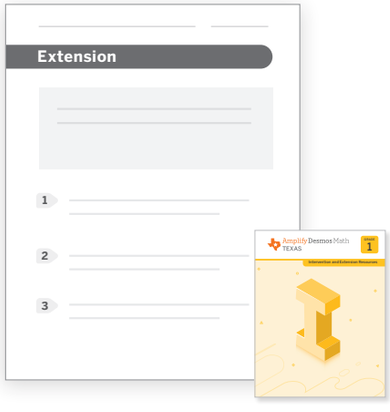
Stretch

Challenge students and extend their learning with these resources.

If students sort coins then count by 2, 5, and 10 to find the value of a collection of mixed coins:

Respond:

- Invite students to explore the **Sub-Unit 1 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min

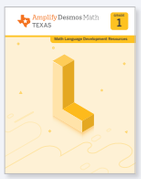


Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates, e.g., cent/centavo
- Frayer Model templates
- Vocabulary routines

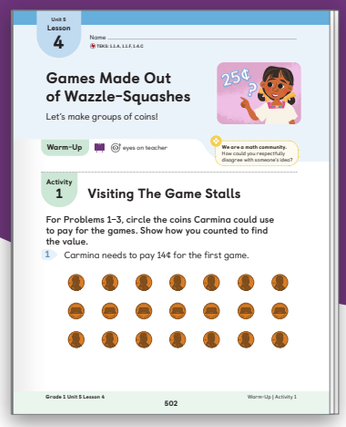


Professional Learning

What strategies did you notice students preferred today? How could you leverage that in the future to help them be successful with future lessons that involve skip counting?

Unit 5
Lesson
4

Student Edition pages and Presentation Screens support learning in this lesson.



Games Made Out of Wazzle-Squashes

Counting by 2, 5, and 10 to Make Groups of Coins With a Given Value

Let's make groups of coins!

Key Concepts

Today's Goals

1. **Goal:** Make groups of coins with a given value by counting by 2, 5, and 10.
2. **Language Goal:** Explain skip counting strategies for making a collection of coins for a given value. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

Connections and Coherence

Students count out specific amounts of money from collections of nickels, dimes, and pennies. Students also make a collection of coins with a value of 100 cents in 2 different ways. Students consider the relationship between the coins and how different collections of coins can be used to represent the same amount of money. **(TEKS 1.1.A, 1.1.F)**

Prior Learning

In Lesson 3, students counted by 2, 5, and 10 to determine the value of a collection of pennies, nickels, and dimes.

Future Learning

In Sub-Unit 2, students will compose a hundred with tens and ones, and represent three-digit numbers with hundreds, tens, and ones.

Integrating Rigor in Student Thinking

- Students build **fluency** with counting by 2, 5, and 10.
- Students develop their **conceptual understanding** of using the value of an individual coin to make a group of coins for a given value.

Vocabulary

Review Vocabulary

cent

penny

nickel

dime

TEKS

Addressing

1.4.C

use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes

Also Addressing: **1.5.B**

Math Process Standards: 1.1.A, 1.1.D, 1.1.F

ELPS: 1.E, 2,B, 2.C, 2.D, 2.E, 2.F, 3.A

Building On	Building Toward
1.4.A	**2.5.A**

Building Math Identity

We are a math community.
How could you respectfully disagree with someone's idea?

Invite students to reflect on this question as they complete this lesson.

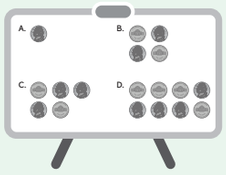
Lesson at a Glance 60 min

TEKS: 1.1.A, 1.1.D, 1.1.F, 1.4.C, 1.5.B

Warm-Up Fluency

Whole Class | 10 min

Students use the **How Many Do You See?** routine, in which they develop fluency by skip counting by 5 to determine the value of a group of coins. **(TEKS 1.1.D)**



Activity 1

Pairs | 15 min

Students count out specific amounts of money from collections of nickels dimes and pennies. They explain strategies for counting coins including skip counting.

Materials: real or plastic coins (optional), *Coins to Cut and Count* PDF (from prior lessons, optional)

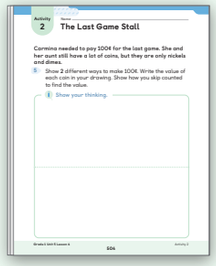


Activity 2

Pairs | 15 min

Students draw coins to show 2 different ways to make 100 cents using nickels and dimes. Then they explain the relationship between the coins.

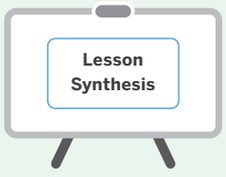
Materials: real or plastic coins (optional), *Coins to Cut and Count* PDF (from prior lessons, optional)



Synthesis

Whole Class | 5 min

Students review and reflect on how skip counting can be used to count out a specific amount of money from a collection of dimes, nickels, and pennies in more than one way.

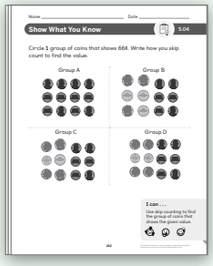


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by identifying a group of coins that shows a given value.

Materials: *Show What You Know* PDF



Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice counting.

- Cover Up
- What's Behind My Back?



Math Language Development

EB Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

Whole Class | 10 min

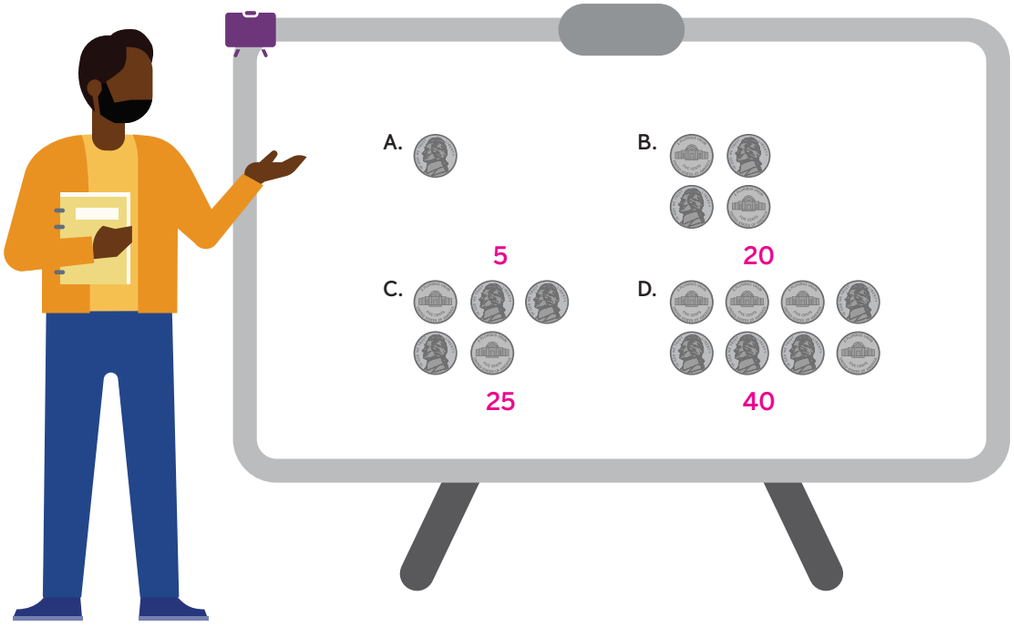
Presentation Screen



Warm-Up How Many Do You See?

Fluency

Purpose: Students find the values of different amounts of nickels to practice skip counting by 5 and develop strategies for counting coins.



Why these problems? These images lend themselves to counting by 5.



1 Launch

Use the How Many Do You See? routine.

Flash Image A for 2–5 seconds, and ask, "What is the value?"

Say, "Give me a signal when you have an answer."

Display the image again, leaving it displayed to discuss.

2 Connect

Record 2 or 3 students' responses, and ask, "How did you count them?"

Repeat for each image, spending the most time discussing cards B–D.

Ask, "How does skip counting by 5 help you determine the value of the coins?"

Students might say . . . ELPS 2.C, 2.D

A: *I see one nickel, which is 5 cents.*

B: *I see 4 nickels, so I can count 5 more for each nickel to get to 20 cents.*

C: *There are 5 nickels, so I can skip count by 5 five times: 5, 10, 15, 20, 25.*

D: *I know 2 nickels make 10 cents, I see 4 groups of 2, so that makes 10, 20, 30, 40 cents.*

Pairs | 15 min

Activity 1 Visiting the Game Stalls

Purpose: Students count out a specific amount of money from a collection of pennies, nickels, and dimes to consider how skip counting can be used as a strategy for counting coins.

Presentation Screens



Materials

Lesson Resources:

- Display page 10 of the Unit Story, *The Day of the Wazzle-Squash* during the Launch.
- If real or plastic coins are not available, distribute the pre-cut coins from the *Coins to Cut and Count* PDF (from prior lessons).

Classroom materials:

- Provide students with access to real or plastic coins (optional).

Short on time? Consider discussing Problem 4 as a whole class by inviting a few students to share their responses.

1 Launch



Display page 10 of the Unit Story, *The Day of the Wazzle-Squash*.

Say, "Carmina was very excited to see different types of games and wanted to play them. Her aunt said she would pay for the games, but Carmnia would need to count the coins by herself to make the payment. You will help Carmina to make each value."

Read aloud the directions.

EB **Emergent Bilinguals** Demonstrate awareness of print concepts by showing how Activity 1 continues on the next page. ELPS 3.A

Have students complete Problems 1–3.

Provide access to real, plastic, or pre-cut coins.

Read aloud Problem 4.

2 Monitor



After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What is the value you need to make?"
- Ask, "How could you count the coins to make the given value?"

3 Connect



Invite students to share their strategies for counting coins in Problem 3.

Use the Think-Pair-Share routine. Ask, "How did you use skip counting to make your collection of coins?"

EB **Emergent Bilinguals** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing. ELPS 1.E, 2.F

Say, "You can use what you know about the value of each coin to help you count them. To make a group of mixed coins, you could count dimes by 10, nickels by 5, and pennies by 1 or 2."

Key Takeaway: Say, "You can use skip counting to count out a specific amount of money. Depending on the amount, sometimes you might need to skip count by more than 1 number."

Unit 5 Lesson 4

Name _____

TEKS: 1.1.A, 1.1.F, 1.4.C

Games Made Out of Wazzle-Squashes

Let's make groups of coins!



Warm-Up eyes on teacher

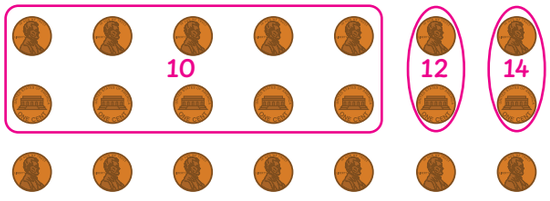
We are a math community. How could you respectfully disagree with someone's idea?

Activity 1

Visiting The Game Stalls

For Problems 1–3, circle the coins Carmina could use to pay for the games. Show how you counted to find the value. Sample responses shown.

1 Carmina needs to pay 14¢ for the first game.

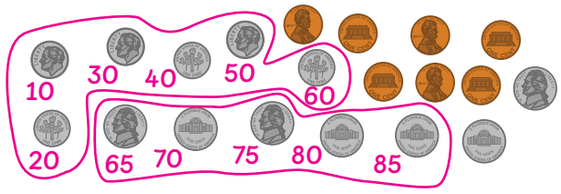


Activity 1

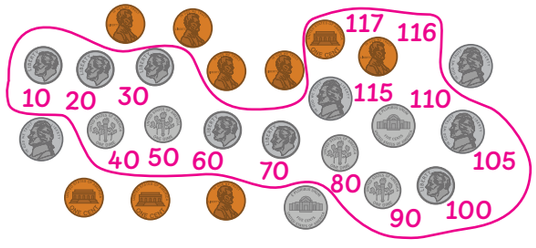
Name _____

Visiting the Game Stalls (continued)

2 Carmina needs to pay 85¢ for the second game.



3 Carmina needs to pay 117¢ for the third game.

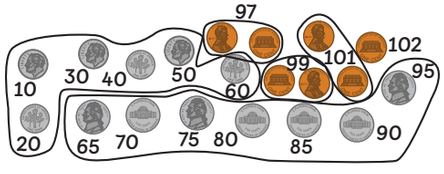
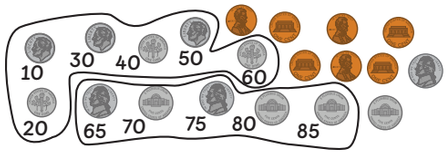
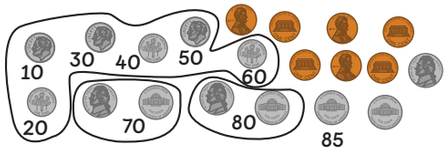


4 Discuss

Tell your partner how you counted the coins in Problem 3.
Oral activity: No writing expected.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Count all the coins to make a value of 102 cents.		**Support** Ask, "What is the value you are trying to make?"
Circle nickels and dimes, and skip count by 10 and 5 to show a total value of 85 cents.		**Strengthen** Ask, "How could you count the coins in a different way?"
Circle nickels and dimes, showing 2 nickels make 10 cents, and skip count by 10 then 5 to show 85 cents.		**Stretch** Ask, "Is there a different way to show 85 cents?"

Pairs | 15 min

Activity 2 The Last Game Stall

Purpose: Students make groups of mixed coins for a given value to practice counting by 2, 5, and 10.

Presentation Screens



Materials

Lesson Resources

- If real or plastic coins are not available, distribute the pre-cut coins from the *Coins to Cut and Count* PDF (from prior lessons).

Classroom materials:

- Provide students with access to real or plastic coins (optional).

1 Launch

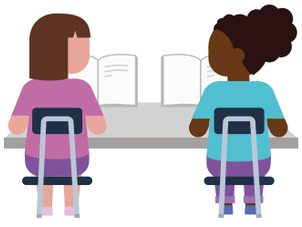


Say, "Carmina was at the last game stall and she needed to pay 100 cents to play the game. Carmina and her aunt checked the coins they had and they only had nickels and dimes left."

Use the Think-Pair-Share routine. Ask, "Do you think that Carmina and her aunt will be able to make 100 cents from just nickels and dimes?"

Read aloud the directions to Problems 5 and 6.

2 Monitor



While students complete Problem 5, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What is the value of a nickel/dime?"
- Ask, "How could you skip count to make your group of coins?"

A **Accessibility: Conceptual processing** Guide processing by providing questions students can ask themselves, such as "What is the value I need to make?", "How can I count the coins to make the given value?".

3 Connect



MLR **MLR7: Compare and Connect** ELPS 1.E, 2.B, 2.D, 2.E

Display the different collections of 15 cents.

Say, "Three students made 15 cents using different coins."

Use the Think-Pair-Share routine. Ask:

- "What do you notice about the number of pennies, nickels, and dimes in each collection?"
- "How could you use what you know about the value of one coin to make a different collection of coins with the same value?"

Invite students to speak using informal language and monitor their responses for increasing accuracy and fluency.

Say (if not yet mentioned during discussion), "You could use 2 nickels to make the same value as a dime. You could use 5 pennies to make the same value as a nickel."

Key Takeaway: Say, "You can use the relationship between the values of pennies, nickels, and dimes to represent the same amount of money with more than one collection of coins."

Activity 2

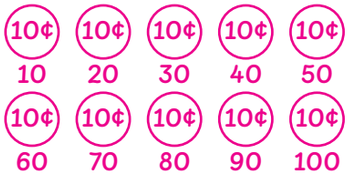
Name _____

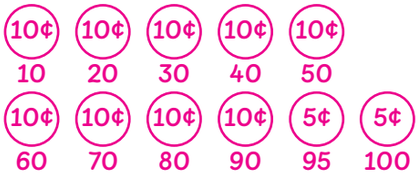
The Last Game Stall

Carmina needed to pay 100¢ for the last game. She and her aunt still have a lot of coins, but they are only nickels and dimes.

5 Show **2** different ways to make 100¢. Write the value of each coin in your drawing. Show how you skip counted to find the value. Sample response shown.

Show your thinking.





Activity 2

Name _____

The Last Game Stall (continued)

6 While making 100 cents, Carmina told her aunt that she could trade every dime for 2 nickels or 2 nickels for a dime. Do you agree? Why or why not?

- I agree because _____.
- I disagree because _____.

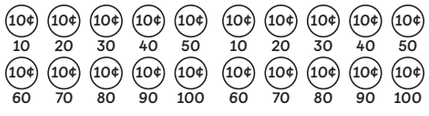
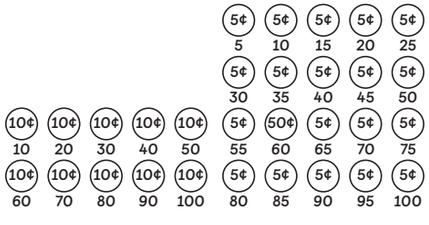
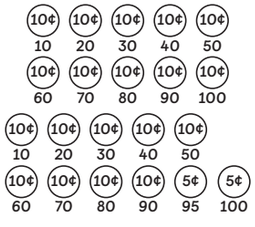
Oral activity: No writing expected. Sample responses shown.

I agree because a dime is worth 10 cents and 2 nickels also make 10 cents.
I agree because both trading ways give you 10 cents.



Presentation Screens

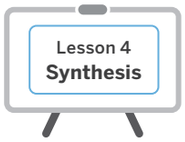
D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Show 100 cents the same way twice.		**Support** Ask, "How could you show 100 cents a different way?"
Show 100 cents using just dimes then just nickels.		**Strengthen** Ask, "How could you show 100 cents using both nickels and dimes?"
Show 100 cents in 2 ways using a combination of nickels and dimes.		**Stretch** Ask, "Is it possible to make 100 cents using dimes, nickels, and pennies? How do you know?"

Whole Class | 5 min

Synthesis

Presentation Screens



Lesson Takeaway: A specific amount of money can be counted out of a collection of pennies, nickels, and dimes by skip counting. Sometimes you can count out the same amount using different combinations of coins.



Say, "Diego wants to buy popcorn."

Use the Think-Pair-Share routine. Ask,

- "How did Diego count the coins?"
- "Is there another way to count the coins?"

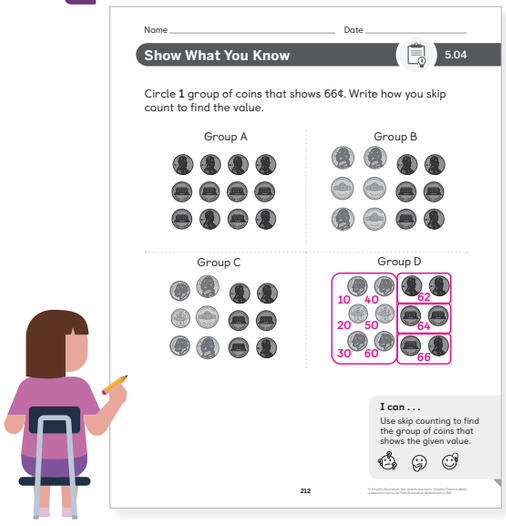
Say (if not yet mentioned during discussion), "You could use what you know about skip counting and the values of coins when you need to count a collection of pennies, nickels, and dimes."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.04

Circle 1 group of coins that shows 66¢. Write how you skip count to find the value.

Group A

Group B

Group C

Group D

10 40 62
20 50 64
30 60 66

I can . . .
Use skip counting to find the group of coins that shows the given value.

212

Lesson Goals

1. **Goal:** Make groups of coins with a given value by counting by 2, 5, and 10.
   - In the *Show What You Know*, students identified a group of coins that show a given value.
2. **Language Goal:** Explain skip counting strategies for making a collection of coins for a given value. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

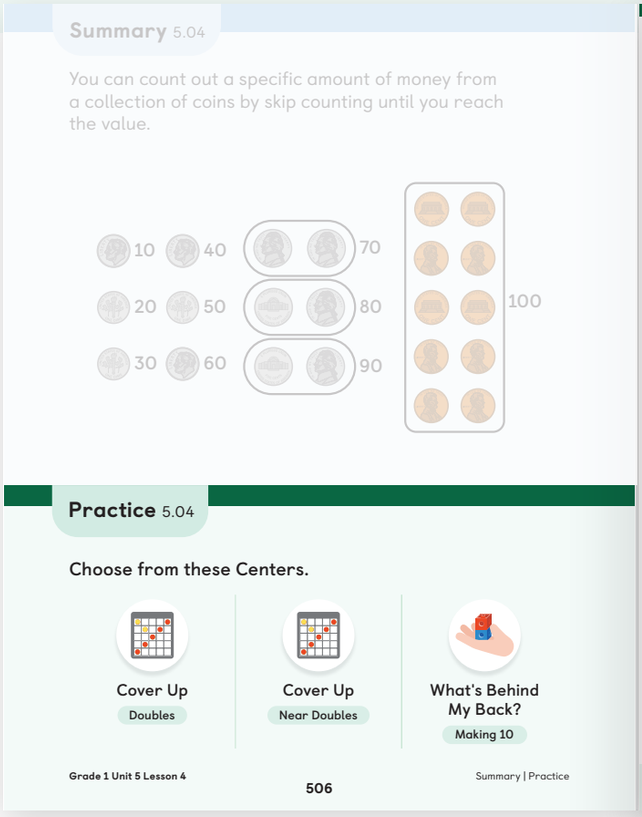
Differentiation See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics including connections to assessment practice, and ongoing spiral review.

Students using print



Summary 5.04

You can count out a specific amount of money from a collection of coins by skip counting until you reach the value.

10 40 70

20 50 80

30 60 90

100

Practice 5.04

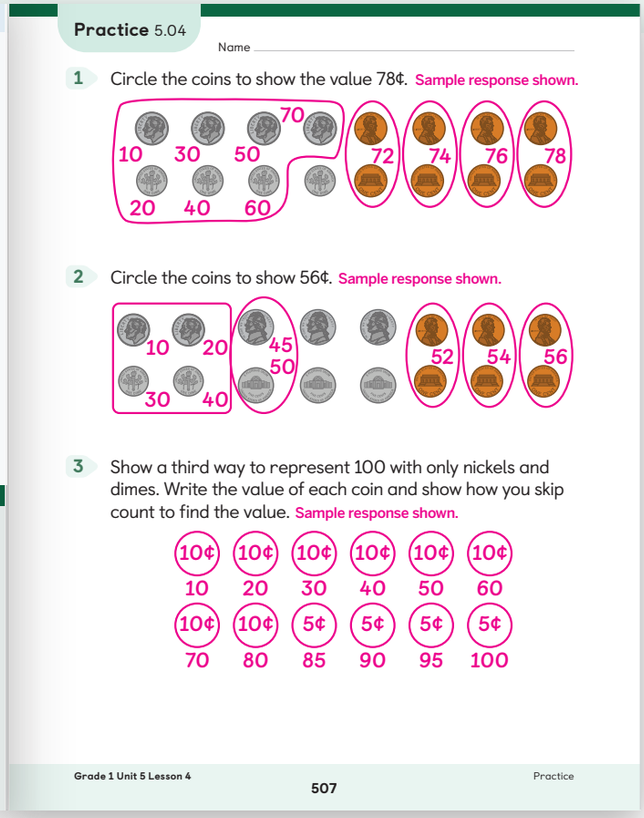
Choose from these Centers.

Cover Up
Doubles

Cover Up
Near Doubles

What's Behind My Back?
Making 10

Grade 1 Unit 5 Lesson 4 506 Summary | Practice



Practice 5.04

Name _____

1 Circle the coins to show the value 78¢. Sample response shown.

10 30 50 70 72 74 76 78

20 40 60

2 Circle the coins to show 56¢. Sample response shown.

10 20 45 50 52 54 56

30 40

3 Show a third way to represent 100 with only nickels and dimes. Write the value of each coin and show how you skip count to find the value. Sample response shown.

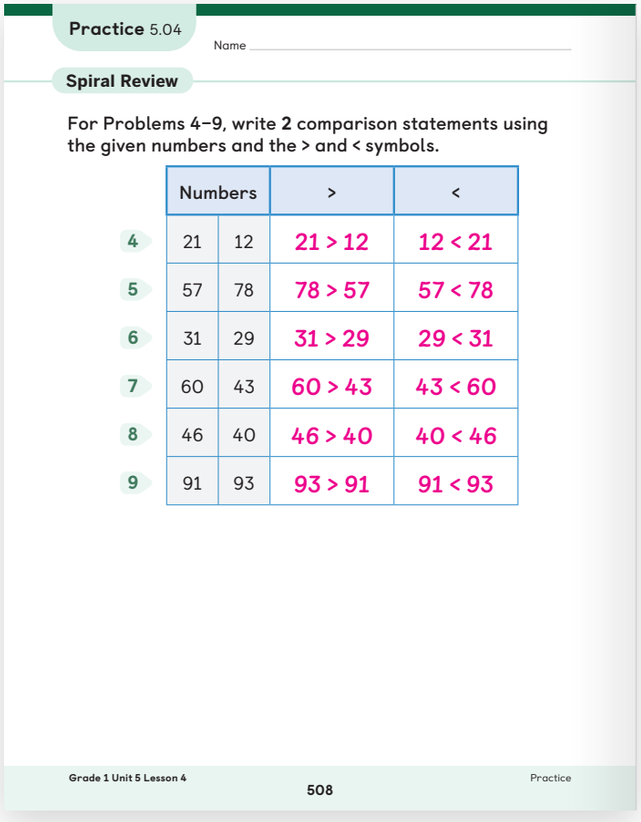
10¢ 10¢ 10¢ 10¢ 10¢ 10¢

10 20 30 40 50 60

10¢ 10¢ 5¢ 5¢ 5¢ 5¢

70 80 85 90 95 100

Grade 1 Unit 5 Lesson 4 507 Practice



Practice 5.04

Name _____

Spiral Review

For Problems 4–9, write 2 comparison statements using the given numbers and the > and < symbols.

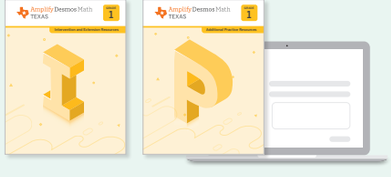
	Numbers		>	<
4	21	12	21 > 12	12 < 21
5	57	78	78 > 57	57 < 78
6	31	29	31 > 29	29 < 31
7	60	43	60 > 43	43 < 60
8	46	40	46 > 40	40 < 46
9	91	93	93 > 91	91 < 93

Grade 1 Unit 5 Lesson 4 508 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.4.C
Spiral Review			
	4–9	1	1.2.G

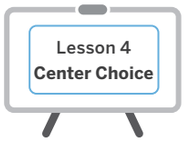
Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Presentation Screen



Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Cover Up

Doubles

Pairs | 15 min | 1.3.D

Students double a number between 0 and 10.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 2, Sub-Unit 4.

Cover Up

Near Doubles

Pairs | 15 min | 1.3.D, 1.5.G

Students double a number between 0 and 10 and then add or subtract 1.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 3, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

What's Behind My Back?

Making 10

Pairs | 15 min | 1.3.D, 1.5.F

Students find how many cubes are removed from a tower of 10 and write equations to represent how they solved for the unknown.

Materials

- 10-frames, connecting cubes (10 per pair) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

Corresponds with the checklist from Unit 3, Sub-Unit 1.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 4

Lesson Goal: Make groups of coins with a given value by counting by 2, 5, and 10.

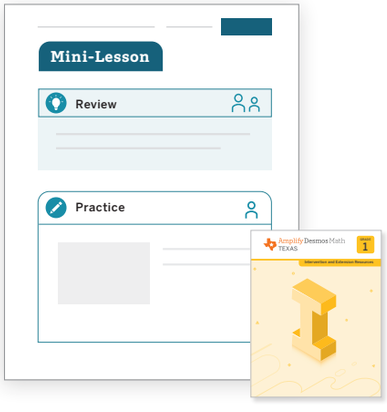
Support

Provide targeted intervention for students by using these resources.

If students circle 12 pennies to show 66 cents:

Respond:

- Assign the *Making Groups of Coins to Match a Given Value* Mini-Lesson. | 15 min
- Review Row 1 of the Activity 1 *Differentiation: Teacher Moves* table.



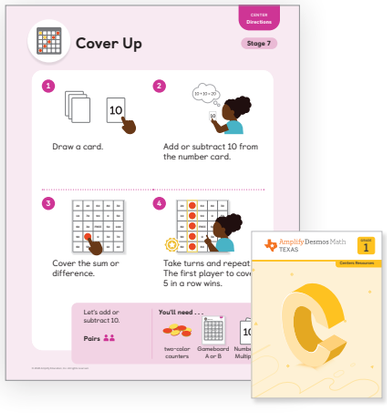
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students circle 6 dimes and 6 pennies to show skip counting to 66:

Respond:

- Invite students to play this **Center.** | 15 min
  Cover Up: Add or Subtract 10
- Have students complete **Lesson 4 Practice.** | 15 min
- **Item Bank**



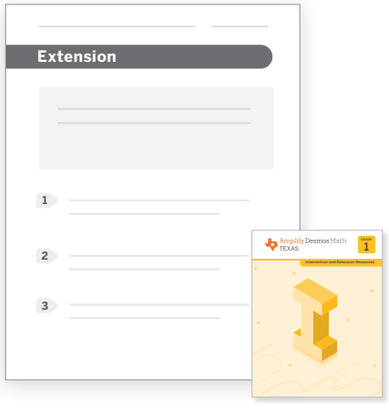
Stretch

Challenge students and extend their learning with these resources.

If students circle 6 dimes and 6 pennies to show organizing coins by value and skip counting to 66 cents:

Respond:

- Invite students to explore the **Sub-Unit 1 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min



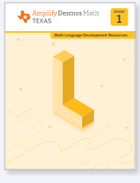
Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.

• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates, e.g., **cent**/**centavo**
- Frayer Model templates
- Vocabulary routines





Professional Learning

Reflect on how you supported the **Think-Pair-Share** routine or class discussions to create a warm and stimulating classroom environment. What are some ways you did to facilitate the discussions and engage the students to respectfully disagree with someone's idea?

Notes:

Assess and Respond

Support, strengthen, and stretch learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Quiz: Sub-Unit 1

Independent | 20 min

Facilitation: Assign this Sub-Unit Quiz at the end of Sub-Unit 1 to evaluate students' proficiency with the key concepts and skills addressed in this sub-unit. Read aloud the problems to students as needed.

Item Analysis

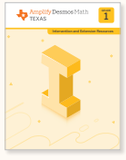
Problem(s)	Concept or skill	DOK	TEKS
1	Finding the value of a group of coins	2	1.4.A, 1.4.B 1.1.A
2	Using skip counting to find the value of a group of coins	2	1.4.A, 1.4.B, 1.4.C 1.1.A

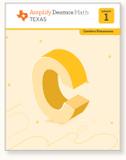
Assessment Resources



- Student Print Assessments
- Answer Keys and Rubrics

Differentiation Resources





Intervention and Extension Resources include:

- Mini-Lessons • Extensions

Centers Resources includes:

- Centers

Practice

During Sub-Unit 2, if students need further review or practice with concepts or skills, consider the following resources:

- Lesson Practice (Print and Digital)
- Item Bank (Digital)

PDF *Assessment Resource PDF*

Name _____ Date _____

Quiz: Sub-Unit 1

Unit 1.5

1 What is the value of the group of coins? Use the cent symbol when writing the value.

Show your thinking.

Sample work shown.



total value: 28 ¢

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Name _____ Date _____

Quiz: Sub-Unit 1 (continued)

Unit 1.5

2 Find the value of the collection of coins. Use skip counting to help you. Sample work shown.

Show your thinking.



total value: 43 ¢

Explain how you used skip counting to find your answer.

Sample explanation shown.

I found the value of the coins by counting all the dimes by 10, then counting by 5 for each nickel, and then by 1 for each penny.

D Differentiation (Quiz: Sub-Unit 1)

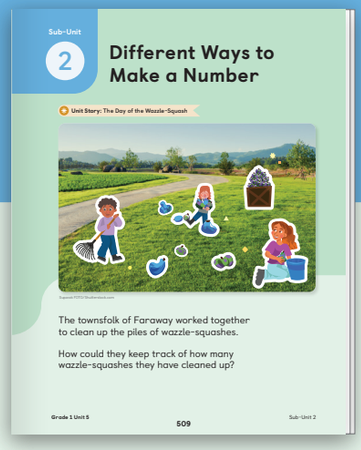
To **Strengthen** and **Stretch** students' learning, refer to the differentiation resources suggested throughout this Sub-Unit.

Sub-Unit Goal	Problem(s)	Respond to Student Thinking
Sub-Unit 1: Describe the relationship among the coins when counting a collection of pennies, nickels, and dimes.	1, 2	**Support** • **Mini-Lesson:** *Finding the Value of a Group of Pennies, Nickels, and Dimes* (ML 5.03) • **Teacher Move:** Invite students to review the problem and then provide additional opportunities for students to record the value of each coin to aid in skip counting. • **Teacher Move:** Consider revisiting Lesson 2, Activity 2 to review identifying coins, if needed.

Notes:

Sub-Unit 2

Different Ways to Make a Number



Sub-Unit 2 Goals

- Compose and decompose numbers up to 120 in more than 1 way using objects and drawings, as so many hundreds, so many tens, and so many ones
- Represent numbers up to 120 using objects, pictures, and expanded and standard forms.
- Use place value relationships to determine 10 more and 10 less than a given number up to 120.

Progression of TEKS in Sub-Unit 2

- **Lessons 5–7:** Students represent numbers to 120 using objects, drawings, and expanded and standard forms.
- **Lesson 8:** Students find 10 more and 10 less than a given number up to 120.
- **Lessons 9–10:** Students use objects and pictorial models to compose and decompose numbers up to 120 using different compositions of hundreds, tens, and ones.

Sub-Unit 2 Progression	Lesson 5	Lesson 6	Lesson 7	Lesson 8	Lesson 9	Lesson 10
Number and Operations						
TEKS 1.5.A	●	●	○	○	○	○
TEKS 1.2.B	○	○	○	○	●	●
TEKS 1.2.C	●	●	●	○	○	○
Algebraic Reasoning						
TEKS 1.5.C	○	○	○	●	○	○

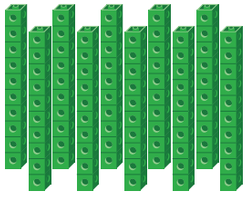
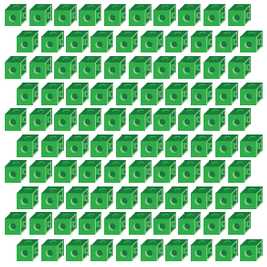
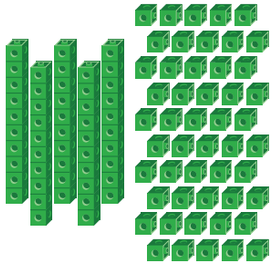
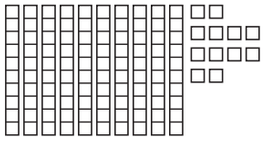
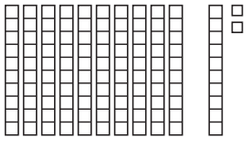
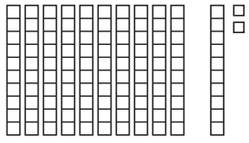
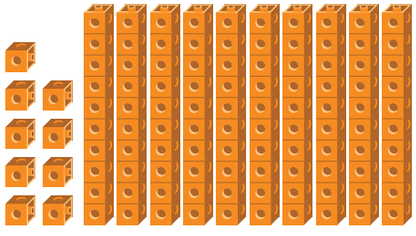
Coming up Next

- **Sub-Unit 3, Lessons 11–13:**
  - » Number and Operations: **TEKS 1.2.B, 1.2.D, 1.2.E, 1.2.F, 1.2.G, 1.3.D**

Math That Matters Most

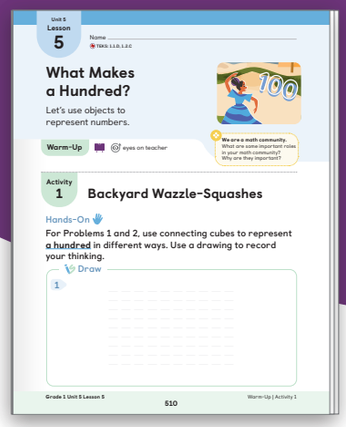
Sub-Unit 2: Use objects, pictorial models, and standard form and expanded form to compose and decompose numbers up to 120 as so many hundreds, so many tens, and so many ones.

Progression of Strategies, Skills, or Language

Progression	For example . . .		
Use connecting cubes to represent a hundred in more than one way.	 10 tens is 100.	 100 ones is 100.	 5 tens and 50 ones is 100.
Use drawings to decompose numbers up to 120 as so many hundreds, so many tens, and so many ones.	 10 tens and 12 ones is 112.	 11 tens and 2 ones is 112.	 1 hundred, 1 ten, and 2 ones is 112.
Compose and decompose numbers up to 120 using more than one representation using objects, pictorial models, expanded form, or standard form.		expanded form: 100 + 9 standard form: 109	

Unit 5
Lesson
5

Student Edition pages, Manipulatives, and Presentation Screens support learning in this lesson.



What Makes a Hundred?

Introducing Hundreds as a Unit

Let's use objects to represent numbers.

Key Concepts

Today's Goals

1. **Goal:** Recognize that a hundred is a unit composed of 100 ones or 10 tens, and represent 100 in different ways.
2. **Goal:** Represent numbers up to 120 using objects.
3. **Language Goal:** Explain how to use objects as base-ten representations to represent numbers up to 120. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

Connections and Coherence

Students build their conceptual understanding of **a hundred** as a unit by representing the amount in different ways using tens and ones. They recognize that a hundred can be composed of 100 ones, 10 tens, or a combination of tens and ones. Understanding that a hundred can be composed in a variety of ways helps students see patterns in the base-ten system and encourages them to think about numbers flexibly. Students apply their understanding of place value to build representations of three-digit numbers, up to 120, draw to show their thinking, and explain their strategies. **(TEKS 1.1.D)**

Prior Learning

In Lesson 4, students used skip counting to determine the value of 100 cents in a collection of different coins.

Future Learning

In Lesson 6, students will represent three-digit numbers up to 120 as different amounts of hundreds, tens, and ones.

Integrating Rigor in Student Thinking

- Students build their **conceptual understanding** of a hundred as a unit.
- Students **apply** their understanding of place value to represent numbers up to 120 using objects.

Vocabulary

New Vocabulary

a hundred/hundreds

Review Vocabulary

a one/ones

a ten/tens

TEKS

Addressing

1.2.C

Use objects, pictures, and expanded and standard forms **to represent numbers up to 120.**

Also Addressing: **1.5.A**

Math Process Standards: 1.1.D, 1.1.F

ELPS: 1.B, 1.E, 2.B, 2.C, 2.E, 3.E, 3.F

Building On	Building Toward
K.5.A	2.2.B

Building Math Identity

We are a math community.
What are some important roles in your math community? Why are they important?

Invite students to reflect on this question as they complete this lesson.

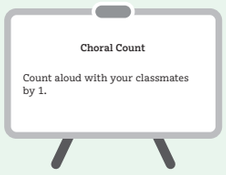
Lesson at a Glance 60 min

TEKS: 1.1.D, 1.1.F, 1.2.C, 1.5.A

Warm-Up Fluency

Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class by 1, starting at 90 and ending at 120. Students may notice patterns or structures in the count, such as starting at 100, numbers have 3 digits, and they consider why those patterns or structures show up. **(TEKS 1.1.F)**



Activity 1

Pairs | 10 min

Students use tens and ones to represent **a hundred** using connecting cubes. They practice flexibility with numbers and build understanding of place value as they notice that a hundred can be composed with 10 tens, 100 ones, or a combination of tens and ones.

Manipulative Kit: connecting cubes

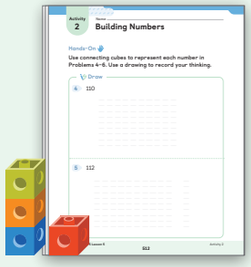


Activity 2

Pairs | 20 min

Students use their place value knowledge of hundreds, tens, and ones to build three-digit numbers up to 120, using connecting cubes. They record their thinking with a drawing and explain their strategies.

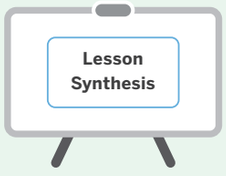
Manipulative Kit: connecting cubes



Synthesis

Whole Class | 5 min

Students review and reflect on different ways to represent a hundred and discuss similarities between representing a hundred and representing a ten.

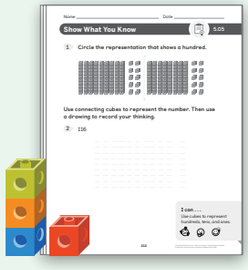


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by selecting a representation that shows a hundred and creating their own representation of a number up to 120.

Manipulative Kit: connecting cubes
Materials: *Show What You Know* PDF



Center Choice Time

Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Cover Up
- Last Number Wins



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Visuals
- ✓ Sentence frames
- ✓ Frayer model

ELPS 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

Whole Class | 10 min

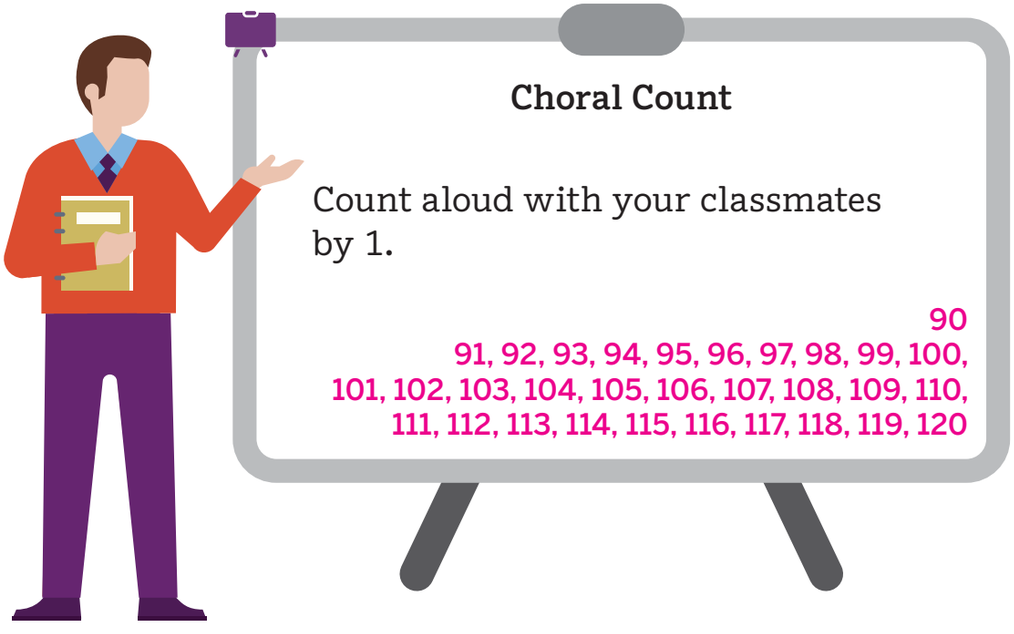
Presentation Screen



Warm-Up Choral Count

Fluency

Purpose: Students count by 1, starting at 90, to find patterns in place value in numbers greater than 100.





1 Launch

Use the Choral Count routine.

Say, "Let's count by 1, starting at 90 and ending at 120."

Display each number as students count.

Ask:

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

2 Connect

Record students' responses as they share. Consider highlighting different patterns using different colors.

Students might say . . ELPS 2.E

I notice the numbers in each row have the same number in the tens place.

The ones place counts up from 0 to 9 and then repeats that pattern.

Once you get to 100, the numbers have 3 digits instead of 2.

The number 100 is the only number in this group that has 0 tens and 0 ones.

Pairs | 10 min

Activity 1 Backyard Wazzle-Squashes

Purpose: Students explore ways to compose 100 with connecting cubes to become familiar with the structure of a hundred.

Presentation Screens



Materials

Manipulative Kit:

- Distribute connecting cubes to each pair after the Launch.

1 Launch



Display the representation of a hundred.

Say, "Carmina had a lot of wazzle-squashes land in her yard during the storm. The amount of wazzle-squashes that landed in Carmina's backyard is equal to the amount represented in this picture."

Ask, "How many do you see? How do you see them?"

Say, "This picture of connecting cubes shows **a hundred**. Today, you will help Carmina think of different ways using hundreds, tens, and ones to organize the wazzle-squashes using connecting cubes."

Read aloud the directions.

A **Accessibility: Executive functioning** Before students begin, invite them to brainstorm a plan with their partner for how they will show or explain their thinking.

2 Monitor



After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What are you trying to do?"
- Ask, "What do you know about how many ones it takes to make a ten?"

3 Connect



Invite students to share their compositions and strategies for finding different ways to compose a hundred, including students who used 10 tens, 100 ones, and a combination of tens and ones.

MLR **MLR8: Discussion Supports — Pressing for Details** ELPS 2.E
As students share how they found different ways to compose a hundred, press for details in their reasoning. For example:

- If a student says, "I took out some tens and added some ones." . . .
- Press for details by asking, "How many tens did you replace? How many ones did you need to replace each ten? How did you know the total was still 100?"

EB **Emergent Bilinguals** Support students' understanding of English language structures by modeling a sample descriptive sentence. Allow students to speak using a variety of sentence lengths, sentence types, and grammatical structures. Encourage them to use connecting words, such as "and" or "because." ELPS 2.C

Play the animation after reading the Key Takeaway.

Key Takeaway: Say, "**A hundred** is a unit that can be represented with 10 tens, 100 ones, or a combination of tens and ones. You can represent a hundred using connecting cubes or drawings."

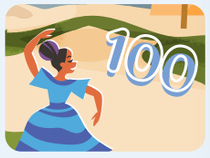
Unit 5 Lesson 5

Name _____

TEKS: 1.1.D, 1.2.C

What Makes a Hundred?

Let's use objects to represent numbers.



Warm-Up eyes on teacher

We are a math community. What are some important roles in your math community? Why are they important?

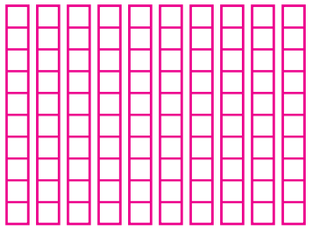
Activity 1 Backyard Wazzle-Squashes

Hands-On

For Problems 1 and 2, use connecting cubes to represent a hundred in different ways. Use a drawing to record your thinking. Sample drawing shown.

Draw

1



Activity 1

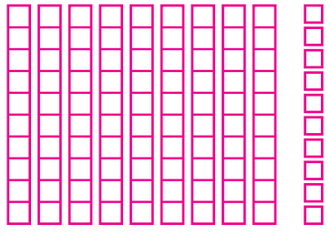
Name _____

Backyard Wazzle-Squashes (continued)

Sample drawing shown.

Show your thinking.

2



3 **Discuss**

How did you represent 100 in Problem 2?

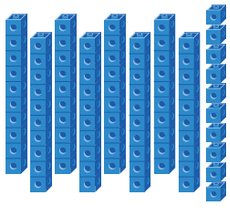
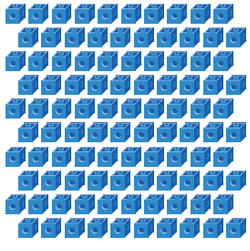
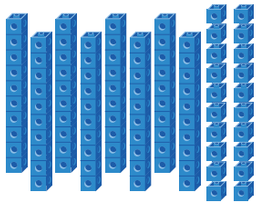
I used _____ because _____.

Oral activity: No writing expected. Sample response shown.

I used 9 towers of 10 and 10 ones because 9 towers of ten is 90, and then you need 10 ones to make 100.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Use tens to represent a number close to 100.		**Support** Ask, "How many tens does it take to make a hundred?"
Represent 100 with 100 ones.		**Strengthen** Ask, "Is there a more efficient way to make some of the tens to help you get to a hundred?"
Represent 100 with a combination of tens and ones.		**Stretch** Ask, "What other combinations of tens and ones could you use? What patterns do you notice between the amounts of tens and ones?"

Pairs | 20 min

Activity 2 Building Numbers

Purpose: Students use objects to represent numbers up to 120 using hundreds, tens, and ones.

Presentation Screens



Materials

Manipulative Kit:

- Distribute connecting cubes to each pair during the Launch.

Short on time? Consider omitting Problem 6.

1 Launch



Say, "Even more wazzle-squashes landed in Carmina's neighbor's yard than her own. Using what you know about hundreds, tens, and ones, show the amount that landed in the neighbor's yard using connecting cubes."

Read aloud the directions.

Distribute connecting cubes.

MLR **MLR8: Discussion Supports — Sentence Frames** ELPS 1.E, 2.C, 2.E
While students work, display these sentence frames for them to use as they discuss Problem 1.

- "The value of the cubes is ____. I know this because . . ."
- "I could represent the same value by . . ."
- "I know this represents the same value because . . ."

EB **Emergent Bilinguals** Allow students to speak using a variety of sentence lengths and grammatical structures, including present or past tense. Encourage them to use connecting words, such as "by," "and," or "because." ELPS 2.C

2 Monitor



While students complete **Problem 7**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What do each of these digits mean?"
- Ask, "After you show 100 cubes, how many cubes do you have left to show?"

3 Connect



Invite students to share how they represented the numbers. Select and sequence their responses in the order shown in Rows 2 and 3 in the *Differentiation* table.

Ask, "Why might you choose to compose a hundred from 10 tens or a ten from 10 ones?"

Key Takeaway: Say, "When representing numbers with objects, you can group 10 ones into a ten and 10 tens into a hundred so you can represent the hundreds, tens, and ones."

Student Edition

Activity 2

Name _____

Building Numbers

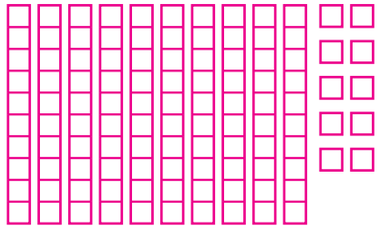
Hands-On

Use connecting cubes to represent each number in Problems 4–6. Use a drawing to record your thinking.

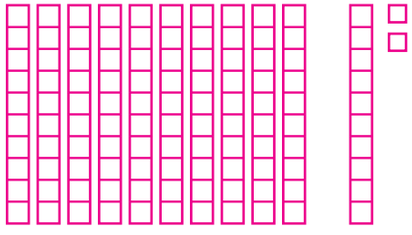
Sample drawings shown.

Draw

4 110



5 112



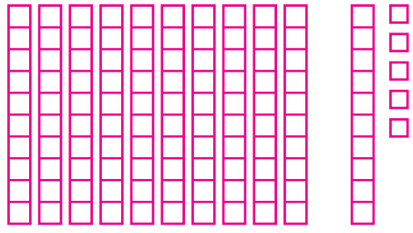
Activity 2

Name _____

Building Numbers (continued)

Draw

6 115



7 **Discuss**

How did you represent the number in Problem 6?

I represented the value by _____.

Oral activity: No writing expected. Sample response shown.

I represented the value by using 10 towers of 10 to show a hundred, then I showed 1 ten and 5 ones to show 15.

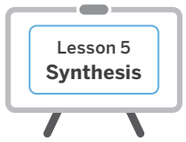
Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Explain that they represented a number other than 115.	*I represented the number by showing 10 towers of ten to show a hundred, and 5 ones because that's what is in the ones place.*	**Support** Ask, "What do each of these digits represent?"
Explain that they represented the value using ones.	*I represented the number by counting out 115 ones.*	**Strengthen** Ask, "What is a way to group some of the cubes to be more efficient?"
Explain that they represented the value of the cubes using place value reasoning.	*I represented the 1 in the hundreds place by using 10 towers of ten, I represented the 1 in the tens place by using 1 tower of ten, and I represented the 5 in the ones place by using 5 individual cubes.*	**Stretch** Ask, "How many more cubes would you need to make another tower of ten?"

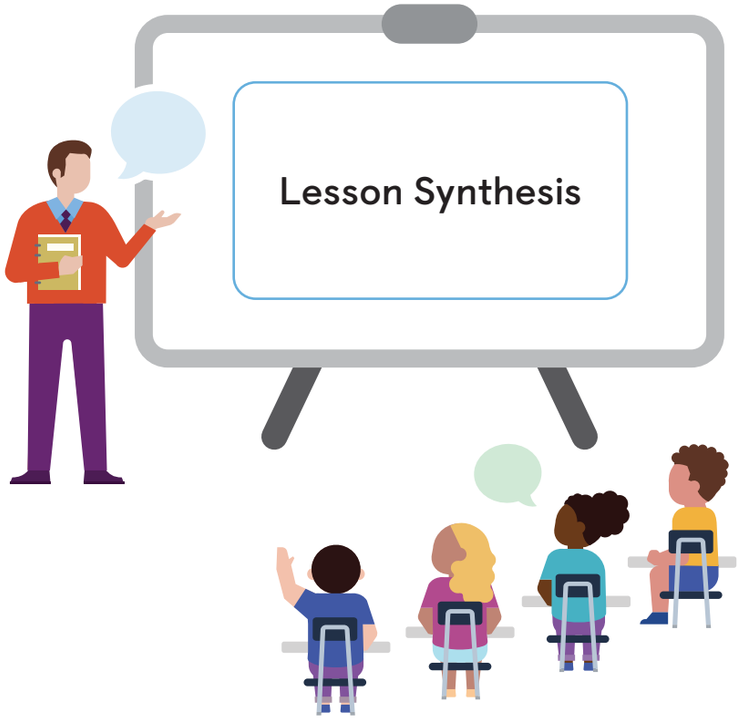
Whole Class | 10 min

Presentation Screen



Synthesis

Lesson Takeaway: When counting and representing numbers up to 120 and beyond, organizing them into groups of 10 and 100 can be helpful. **A hundred** can be composed with 10 tens, 100 ones, or a combination of tens and ones.



Ask, "What value is represented here? How do you know?"

Play the animation.

Say, "A hundred can be composed of 100 ones or 10 tens. Sometimes, it can be helpful to compose hundreds or tens when counting large amounts of objects."

Formalize vocabulary: **A hundred** is a group of 10 tens, or 100 ones.

(optional) **Consider using the Frayer Model routine** with the term **a hundred**. ELPS 3.E, 3.F

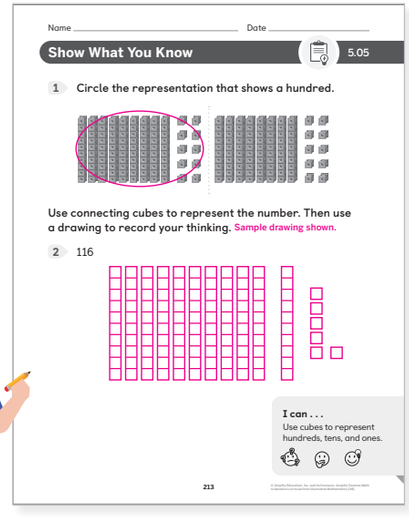
Refer to the *Math Language Development Resources* for a description of this routine and for more vocabulary support.

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.05

1 Circle the representation that shows a hundred.

Use connecting cubes to represent the number. Then use a drawing to record your thinking. Sample drawing shown.

2 116

I can . . .
Use cubes to represent hundreds, tens, and ones.

213

Today's Goals

1. **Goal:** Recognize that a hundred is a unit composed of 100 ones or 10 tens, and represent 100 in different ways.
   - In Problem 1 in the *Show What You Know,* students worked toward recognizing that a hundred is composed of tens and ones.
2. **Goal:** Represent numbers up to 120 using objects.
   - In Problem 2 in the *Show What You Know*, students used connecting cubes to represent a number.
3. **Language Goal:** Explain how to use objects as base-ten representations to represent numbers up to 120. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

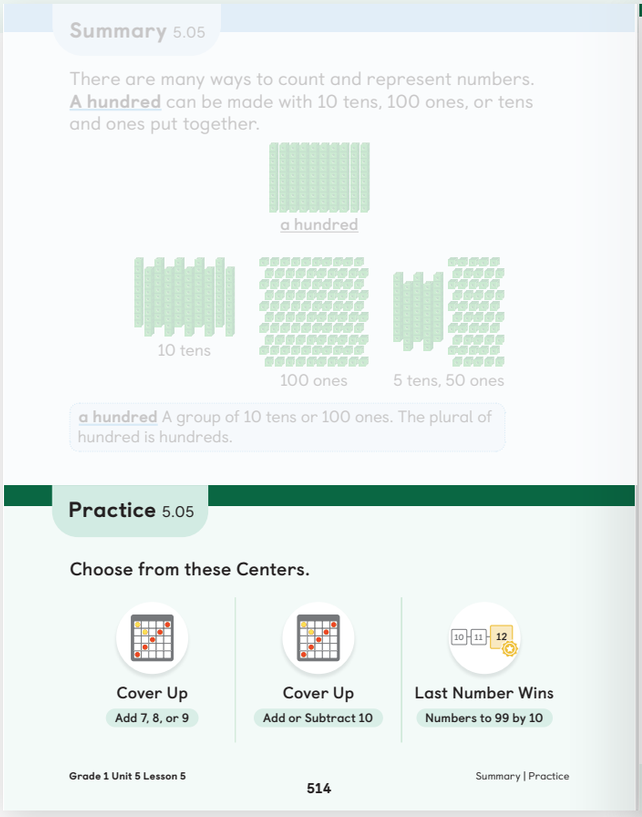
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.05

There are many ways to count and represent numbers. **A hundred** can be made with 10 tens, 100 ones, or tens and ones put together.

a hundred

10 tens

100 ones

5 tens, 50 ones

a hundred A group of 10 tens or 100 ones. The plural of hundred is hundreds.

Practice 5.05

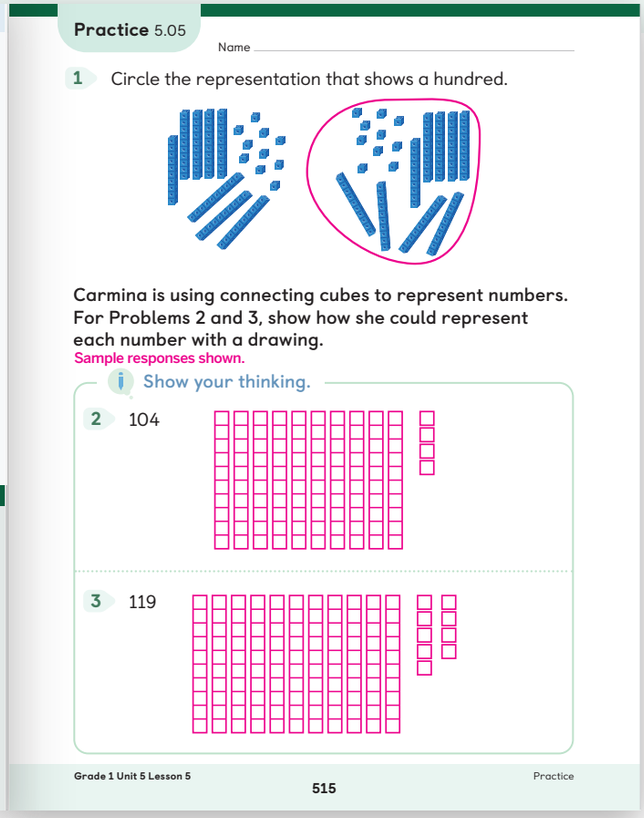
Choose from these Centers.

Cover Up
Add 7, 8, or 9

Cover Up
Add or Subtract 10

Last Number Wins
Numbers to 99 by 10

Grade 1 Unit 5 Lesson 5 514 Summary | Practice



Practice 5.05

Name _____

1 Circle the representation that shows a hundred.

Carmina is using connecting cubes to represent numbers. For Problems 2 and 3, show how she could represent each number with a drawing.

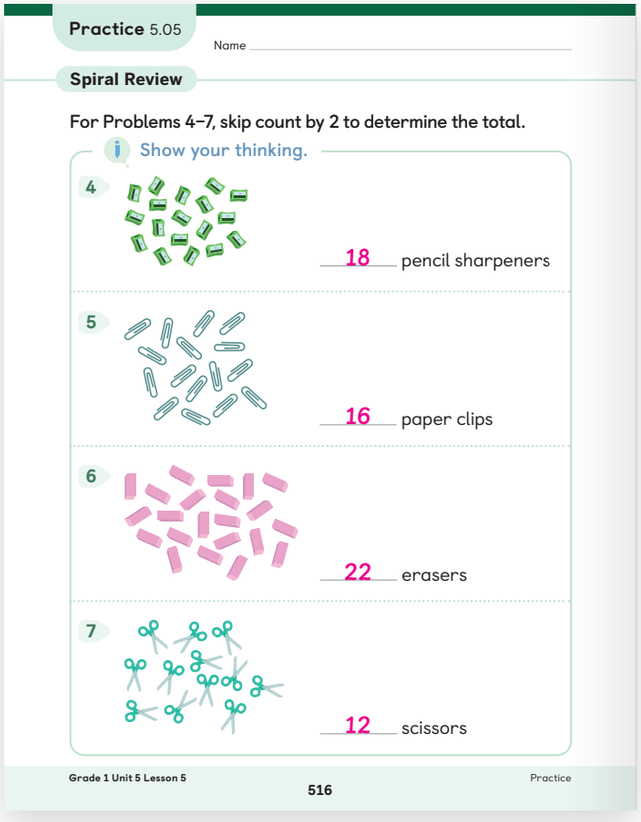
Sample responses shown.

Show your thinking.

2 104

3 119

Grade 1 Unit 5 Lesson 5 515 Practice



Practice 5.05

Name _____

Spiral Review

For Problems 4–7, skip count by 2 to determine the total.

Show your thinking.

4 18 pencil sharpeners

5 16 paper clips

6 22 erasers

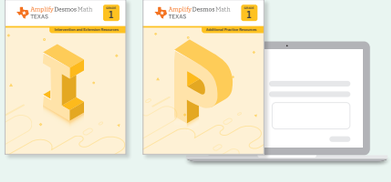
7 12 scissors

Grade 1 Unit 5 Lesson 5 516 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.2.C
Spiral Review			
Fluency	**4–7**	1	1.5.B

Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Presentation Screen



Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Cover Up

Add 7, 8, or 9

Pairs | 15 min | 1.3.D, 1.5.G

Students add 7, 8, or 9 to a number between 0 and 10.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 3, Sub-Unit 2.

Cover Up

Add or Subtract 10

Pairs | 15 min | 1.5.C

Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

Materials

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Last Number Wins

10 11 12

Numbers to 99 by 10

Pairs | 15 min | 1.5.C

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 10 and writing two-digit numbers.

Materials

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 3.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 5

Lesson Goal: Represent numbers up to 120 using objects.

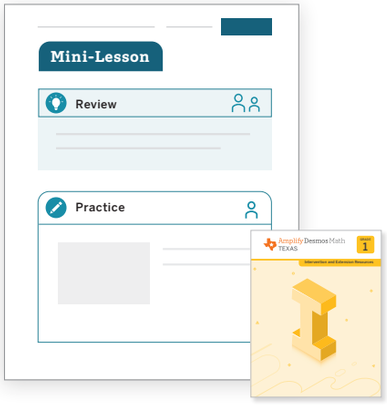
Support

Provide targeted intervention for students by using these resources.

If students compose a number other than 116:

Respond:

- Assign the *Composing a Hundred with Tens and Ones* Mini-Lesson. | 15 min
- Review Row 2 of the Activity 1 *Differentiation: Teacher Moves* table.



Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students compose 116 with ones:

Respond:

- Invite students to play these **Centers.** | 15 min
  Counting Collections: Up to 99
  Last Number Wins: Numbers to 120 by 1
  Cover Up: Add or Subtract 10
- Have students complete **Lesson 5 Practice.** | 15 min
- **Item Bank**



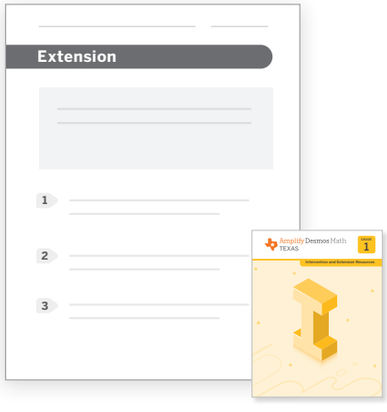
Stretch

Challenge students and extend their learning with these resources.

If students compose 116 with a combination of tens and ones:

Respond:

- Invite students to explore the **Sub-Unit 2 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min

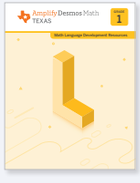


Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines





Professional Learning

What strengths did you notice in your students' understanding about place value? How did you leverage those strengths to further the understanding of the class?

Unit 5
Lesson
6

Student Edition pages, Manipulatives, and Presentation Screens support learning in this lesson.



Artful Wazzle-Squash Numbers

Representing Numbers up to 120 Using Objects and Drawings

Let's represent numbers with objects and drawings.

Key Concepts

Today's Goals

1. **Goal:** Represent a three-digit number as amounts of hundreds, tens, and ones using cubes and drawings.
2. **Language Goal:** Describe a three-digit number as amounts of hundreds, tens, and ones. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F
3. **Language Goal:** Justify if a given base-ten drawing represents a three-digit number by reasoning about the values of the digits. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

Connections and Coherence

Students represent numbers up to 120 as amounts of tens and ones using connecting cubes and drawings. Students recognize that the digits in three-digit numbers represent the amounts of hundreds, tens, and ones. Students then determine what number is represented in a given base-ten drawing to notice that writing the same digits in a different order changes the value of the number. They recognize that when objects or drawings are used to represent a three-digit number, the order in which the tens and ones are represented does not affect the value of the number. **(TEKS 1.1.E, 1.1.G)**

Prior Learning

In Lesson 5, students recognized a hundred as a unit composed of 100 ones or 10 tens.

Future Learning

In Lesson 7, students will represent numbers up to 120 using drawings, standard form, and expanded form.

Integrating Rigor in Student Thinking

- Students build their **conceptual understanding** of a hundred as a unit using a group of 10 tens.
- Students **apply** their understanding of place value to create and analyze base-ten representations.

Vocabulary

Review Vocabulary

a hundred/hundreds	*a ten/tens*
a one/ones	*digit*

TEKS

Addressing

1.2.C

Use objects, pictures, and expanded and standard forms to represent numbers up to 120.

Also Addressing: **1.5.A**

Math Process Standards: 1.1.E, 1.1.F, 1.1.G

ELPS: 1.B, 1.E, 2.C, 2.D, 2.E, 2.F, 3.C, 3.F

Building On	Building Toward
K.2.B	1.2.B

Building Math Identity

I can be all of me in math class.

What are some examples of two- or three-digit numbers you see in your communities?

Invite students to reflect on this question as they complete this lesson.

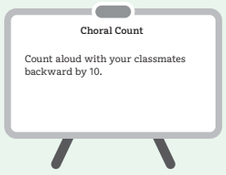
Lesson at a Glance 60 min

TEKS: 1.1.E, 1.1.F, 1.1.G, 1.2.C, 1.5.A

Warm-Up Fluency

Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class backward by 10, starting at 120 and ending at 0. Students may notice patterns in place value, such as the tens place changing by 1. **(TEKS 1.1.F)**



Activity 1

Pairs | 15 min

Students develop their conceptual understanding of three-digit numbers by representing numbers up to 120 as amounts of tens and ones with cubes and drawings.

Manipulative Kit: connecting cubes
Materials: chart paper, markers, Unit Story, *The Day of the Wazzle-Squash*
Additional Prep Assemble: 11 towers of 10 cubes and 9 singular cubes per pair, Prepare: *Words to Describe Numbers* chart

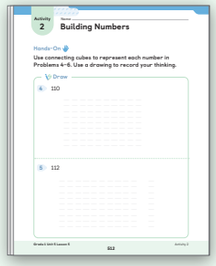


Activity 2

Pairs | 15 min

Students analyze a base-ten drawing in which the ones are represented on the left and the tens are represented on the right. They consider 2 interpretations of the amount and justify which they agree with to recognize that the order of the tens and ones does not matter when representing a three-digit number with a drawing.

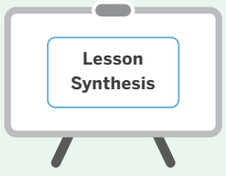
Manipulative Kit: connecting cubes (optional)



Synthesis

Whole Class | 5 min

Students review and reflect on how three-digit numbers represent the amounts of hundreds, tens, and ones, with the left digit showing the amount of hundreds, the middle digit showing the amount of tens, and the right digit showing the remaining amount of ones.

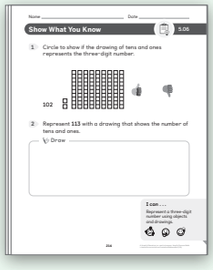


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by identifying if a drawing represents a three-digit number and representing a three-digit number using a drawing.

Materials: *Show What You Know* PDF



Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build an understanding of counting.

- Cover Up
- Last Number Wins



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 2, Monitor** to support math language acquisition.

✓Cognates ✓Sentence frames
✓Visuals

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

Whole Class | 10 min

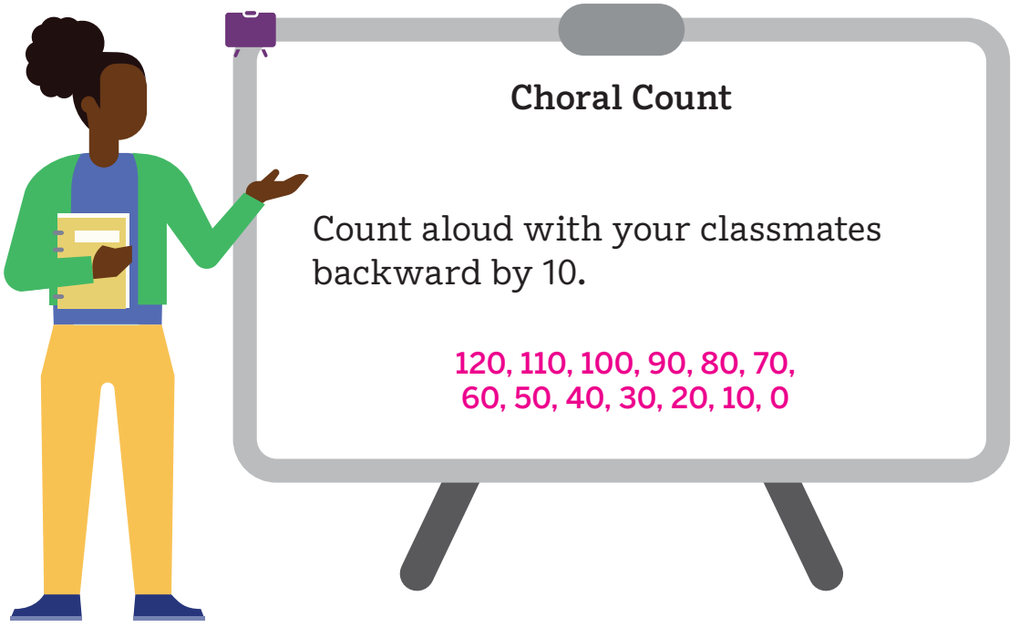
Presentation Screen



Warm-Up Choral Count

Fluency

Purpose: Students count backward by 10 to prepare for representing three-digit numbers up to 120.





1 Launch

Use the Choral Count routine.

Say, "Let's count backward by 10, starting at 120 and ending at 0."

Display each number as students count.

Ask:

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

2 Connect

Record students' responses as they share. Consider highlighting different patterns using different colors.

Students might say . . . ELPS 2.E

I notice the ones place stays a 0.

Every three-digit number starts with the digit 1.

There are bigger numbers.

The digits in the tens place get smaller by 1.

Pairs | 15 min

Activity 1 Special Packages

Purpose: Students read and interpret three-digit numbers and represent them using cubes and drawings to develop their conceptual understanding of the meaning of the digits in a three-digit number.

Presentation Screens



Materials

Lesson Resources:

- Display and read aloud page 9 of the Unit Story, *The Day of the Wazzle-Squash* during the Launch.

Manipulative Kit:

- Distribute 11 towers of 10 connecting cubes and 9 single cubes to each pair.

Classroom materials:

- Use chart paper and markers to create the *Words to Describe Numbers* chart before the activity.

Short on time? For Problems 1–4, consider having students represent 2 numbers with cubes and 2 numbers with drawings.

1 Launch



Read aloud page 9 of the Unit Story, *The Day of the Wazzle-Squash*. ELPS 1.E

Say:

- "While Carmina and her Aunt Marta toured stalls at the Wazzle-Squash Festival, they noticed special packages of wazzle-squashes to create paintings."
- "You will work in pairs to represent each artist's special package of wazzle-squash."

Read aloud the directions and display Problems 1–4.

A **Accessibility: Executive functioning** Vary the task demands by giving students a choice to solve 2 problems. Have students complete the remaining 2 problems when they have more processing time.

2 Monitor



After students have completed **Problem 2**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What do you need to do first?"
- Ask, "How could you figure out how many towers of 10 you need to build this number?"

MLR **MLR2: Collect and Display** ELPS 3.C, 3.F

- Collect student language used to describe the numbers, such as *ones*, *tens*, *hundreds*, *digit*, and *three-digit number*, on the prepared *Words to Describe Numbers* chart.
- Display and update the chart during the Connect. Invite students to use language from the chart as needed throughout Unit 5 activities.

EB **Emergent Bilinguals** Add and connect visual examples to the *Words to Describe Numbers* chart and make explicit connections to referenced materials. ELPS 3.F

3 Connect



Invite students to share their drawings for Problem 2 and how they determined the amount of tens and ones to represent the number. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

Use the Think-Pair-Share routine. Ask, "What is different about how each pair figured out how many tens and ones to use to represent 112?" Invite students to respond with gestures or orally to demonstrate understanding of the terms *tens* and *ones*. ELPS 1.B

Key Takeaway: Say, "Three-digit numbers can be represented as amounts of hundreds, tens, and ones. There are different ways to figure out how many hundreds, tens, and ones represent a three-digit number."

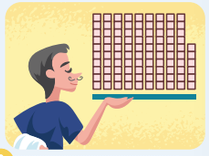
Unit 5
Lesson
6

Name

TEKS: 1.1.E, 1.1.G, 1.2.C

Artful Wazzle-Squash Numbers

Let's represent numbers with objects and drawings.



I can be all of me in math class.
What are some examples of two- or three-digit numbers you see in your communities?

Warm-Up eyes on teacher

Activity
1

Special Packages

Hands-On

Build each number using towers of 10 and single cubes to show the number of hundreds, tens, and ones.

Then create a drawing that shows the hundreds, tens, and ones.



Activity
1

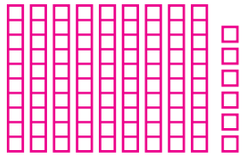
Name

Special Packages (continued)

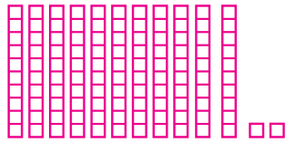
Sample responses shown.

Draw

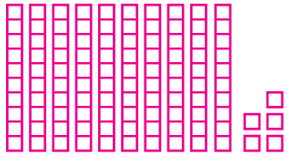
1 96



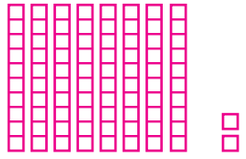
2 112



3 105

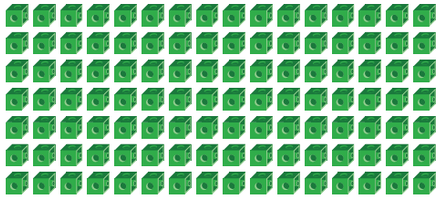
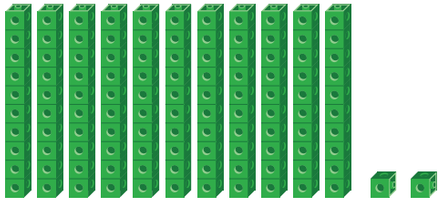
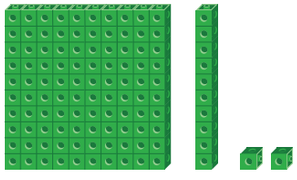


4 82



Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Build the number with all single cubes and create a drawing that matches.		**Support** Ask, "You represented 112 as 112 ones. What is another way you could represent it to show how many tens there are in the number?"
Build the number using cubes and count by 10 and by 1 to create a drawing that matches.	 10 20 30 40 50 60 70 80 90100 111 112	**Strengthen** Ask, "What do you notice about the amount of tens used to create 112?"
Build the number using place value reasoning and create a drawing that matches.	 112 has 1 hundred, 1 ten, and 2 ones.	**Stretch** Ask, "Could you find the number of hundreds, tens, and ones in any three-digit number without counting? Why or why not?"

Pairs | 15 min

Activity 2 Who Do You Agree With?

Purpose: Students interpret a base-ten drawing of a three-digit number with ones on the left of the tens to recognize that tens and ones can be represented in any order with objects and drawings without changing the value of a number.

Presentation Screens



Materials

Manipulative Kit:

- Provide students with access to connecting cubes (optional).

1 Launch



Say, "When Carmina asked an artist how many wazzle-squashes were used to create their painting, the artist showed her a drawing that represented how many they had."

Read aloud the directions and Problems 5 and 6.

A **Accessibility: Executive functioning** Chunk this task into smaller, more manageable parts by having students complete Problem 5 in 2 steps. Have students determine the value of the representation first and then consider who they agree with and why.

Provide access to connecting cube towers of 10 and single cubes.

2 Monitor



After students have completed **Problem 5**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What is the problem asking you to think about?"
- Ask, "Describe the drawing. What is represented?"

3 Connect



Invite students to share their responses to Problem 5. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

Display the image from Problem 5. Label it with the number the number 106.

Use the Think-Pair-Share routine. Ask, "What do you notice about the drawing and the number 106 that represents the drawing?"

EB **Emergent Bilinguals** Invite students to begin partner interactions by restating their partner's description, in their own words before adding their own ideas to the discussion. ELPS 1.E, 2.C, 2.D, 2.F

Say (if not yet mentioned during discussion), "In the number 106, the digit 1 on the left shows the hundreds, the digit 0 shows the tens, and the digit 6 on the right shows the ones. In the drawing in Problem 5, even though the ones are drawn before the tens, the drawing still shows 10 tens and 6 ones."

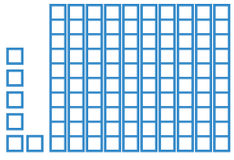
Key Takeaway: Say, "When representing hundreds, tens, and ones with objects or drawings, they can be represented in any order and the value will not change. When representing hundreds, tens, and ones with numbers, the order of the digits matters."

Activity 2

Name _____

Who Do You Agree With?

This drawing shows the number of wazzle-squashes an artist used for their painting.



5 Discuss

Carmina thinks the drawing shows 106 (one hundred six).

Aunt Marta thinks it shows 601 (six hundred one).

Who do you agree with? Why?

I agree with _____ because _____.

Oral activity: No writing expected. Sample response shown.

I agree with Carmina because I see 10 tens and 6 ones. Even though it shows the ones first and then the tens, it still shows 106.

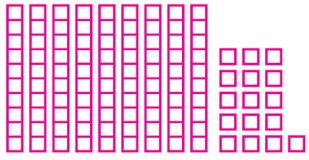
Activity 2

Name _____

Who Do You Agree With? (continued)

6 Create another drawing that represents the same number from Problem 5. Sample response shown.

Draw



Presentation Screens

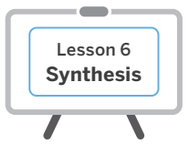
D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Agree with Aunt Marta, and justify their thinking using the order in which the quantities are shown.	*I agree with Aunt Marta. I see 6 and then 1, so the value is 61.*	**Support** Ask, "How many tens do you see in the drawing? How many ones do you see?"
Agree with Carmina and justify their thinking by counting to find the value of the tens and ones shown in the drawing.	*I agree with Carmina because I counted the cubes 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 101, 102, 103, 104, 105, 106.*	**Strengthen** Ask, "You counted to find the number represented. What is another way you could figure out how many cards are shown?"
Agree with Carmina and justify their thinking using place value reasoning.	*I agree with Carmina because the drawing shows 10 tens and 6 ones, which is 106.*	**Stretch** Ask, "Talk with your partner about what addition expression could represent the number of wazzle-squashes in the package."

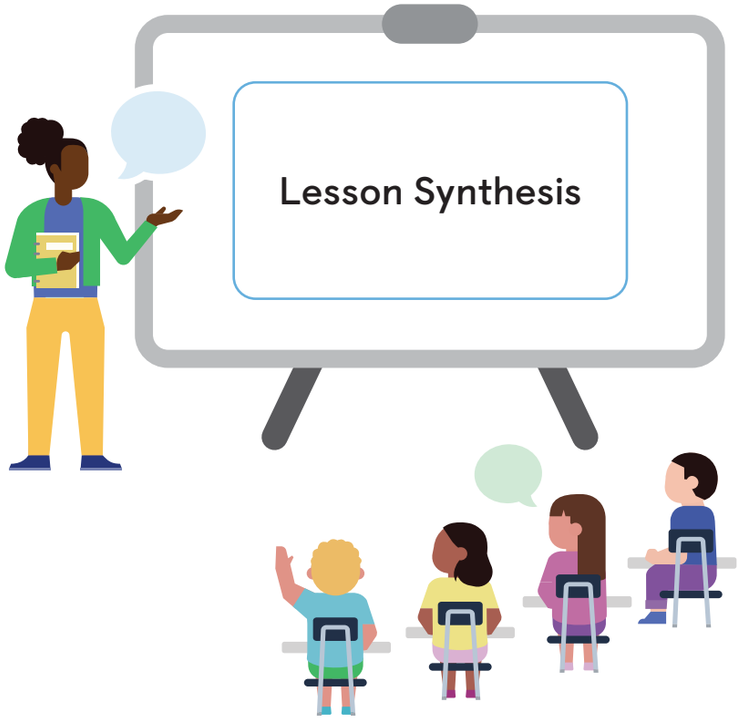
Whole Class | 5 min

Synthesis

Presentation Screen



Lesson Takeaway: In a three-digit number, the left digit represents the hundreds, the digit in the middle represents the tens, and the right digit represents the ones. When representing a three-digit number with objects or drawings, changing the order of the hundreds, tens, and ones does not change the value of the number.



Say, "This is a three-digit number. The sticky notes are covering one of the digits in the number."

Use the Think-Pair-Share routine. Ask, "What number could this be? How do you know?"

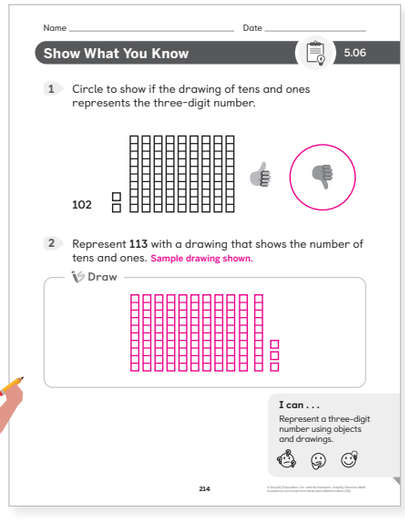
Say, "In three-digit numbers, the left digit represents the amount of hundreds, the digit in the middle represents the amount of tens, and the right digit represents the amount of ones."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.06

1 Circle to show if the drawing of tens and ones represents the three-digit number.

102

2 Represent 113 with a drawing that shows the number of tens and ones. Sample drawing shown.

Draw

I can . . .
Represent a three-digit number using objects and drawings.

214

Today's Goals

1. **Goal:** Represent a three-digit number as amounts of hundreds, tens, and ones using cubes and drawings.
   - In Problem 2 of the *Show What You Know,* students represented a three-digit number with a drawing.
2. **Language Goal:** Describe a three-digit number as amounts of hundreds, tens, and ones. **(Listening and Speaking)**
   ELPS 1.E, 2.E, 2.F
3. **Language Goal:** Justify if a given base-ten drawing represents a three-digit number by reasoning about the values of the digits. **(Listening and Speaking)**
   ELPS 1.E, 2.E, 2.F

D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print

Summary 5.06

In three-digit numbers, the left digit represents the amount of hundreds, the digit in the middle represents the amount of tens, and the right digit represents the amount of ones.



Practice 5.06

You'll play this Center.

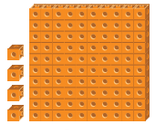
Counting Collections Up to 99

Let's count and show how many.

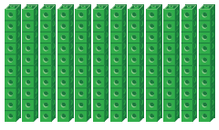
Practice 5.06

Name _____

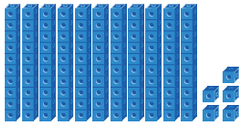
For Problems 1–3, record the amount of hundreds, tens, and ones. Then draw lines to match the representation with the correct number.

1 

1 hundred 0 tens 4 ones

2 

1 hundred 2 tens 0 ones

3 

1 hundred 1 tens 5 ones

115

104

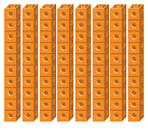
120

Practice 5.06

Name _____

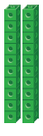
Spiral Review

4 What is 10 more than the number of cubes shown?



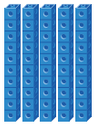
answer: 90

5 What is 10 less than the number of cubes shown?



answer: 10

6 What is 10 more than the number of cubes shown?

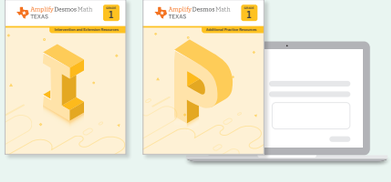


answer: 60

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.2.C
Spiral Review			
Fluency	4–6	1	1.5.C

Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Presentation Screen



Cover Up

Add 7, 8 or 9

Pairs | 15 min | 1.3.D, 1.5.G

Students add 7, 8, or 9 to a number between 0–10.

Materials

- two-color counters **(Manipulative Kit)**
- number cards (0–10), Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.

Cover Up

Add or Subtract 10

Pairs | 15 min | 1.5.C

Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

Materials

- two-color counters **(Manipulative Kit)**
- number cards (multiples of 10), Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Last Number Wins

10 11 12

Numbers to 99 by 1

Pairs | 15 min | 1.5.A

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 1 and writing two-digit numbers.

Materials

- dry erase markers, sheet protectors **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 2.

D Differentiation | Teacher Moves

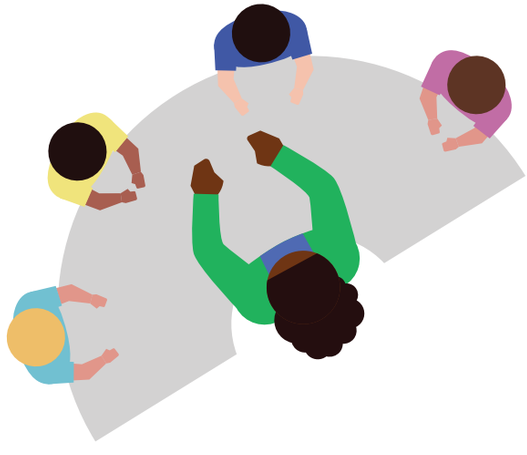
Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 6

Lesson Goal: Represent a three-digit number as amounts of hundreds, tens, and ones using cubes and drawings.

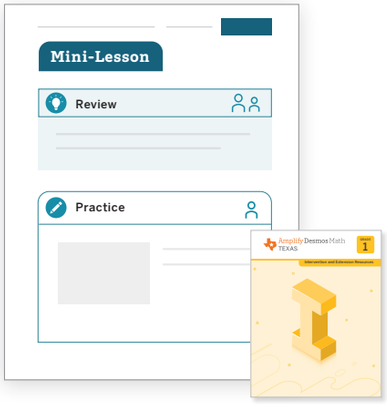
Support

Provide targeted intervention for students by using these resources.

If students represent a three-digit number with all ones:

Respond:

- Assign the *Representing Three-digit Numbers with Hundreds, Tens, and Ones* Mini-Lesson. | 15 min
- Invite students to discuss how making groups of ten is helpful when counting with a partner.



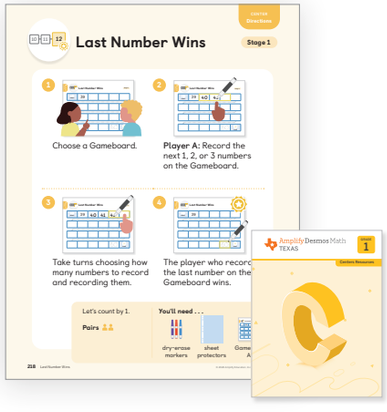
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students represent a three-digit number by counting out tens by 10 and ones by 1:

Respond:

- Invite students to play these **Centers.** | 15 min
  Last Number Wins: Numbers to 99 by 1
  Cover Up:
  - *Add 7, 8, or 9*
  - *Add or Subtract 10*
- Have students complete **Lesson 6 Practice.** | 15 min
- **Item Bank**



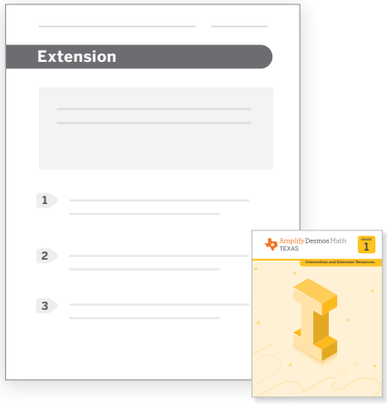
Stretch

Challenge students and extend their learning with these resources.

If students represent a three-digit number by counting out hundreds by 100, tens by 10, and ones by 1:

Respond:

- Invite students to explore the **Sub-Unit 2 Extension Activities.** | 15 min
- Revisit Activity 1 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min

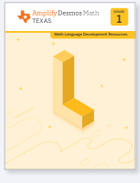


Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines



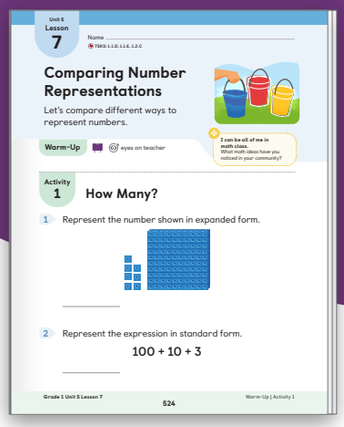


Professional Learning

What opportunities are you giving students to reflect on their understanding of the base-ten structure of three-digit numbers?

Unit 5
Lesson
7

Student Edition pages and Presentation Screens support learning in this lesson.



Comparing Number Representations

Representing Numbers up to 120 Using Drawings, Expanded, and Standard Form

Let's compare different ways to represent numbers.

Key Concepts

Today's Goals

1. **Goal:** Represent numbers up to 120 in more than 1 way using drawings, standard form, and expanded form.
2. **Language Goal:** Compare different ways to represent numbers up to 120 and describe how each shows a number composed of an amount of hundreds, tens, and ones. **(Listening, Speaking, and Writing)** ELPS 1.E, 2.E, 2.F, 4.D, 4.F

Connections and Coherence

Students attend to the base-ten structure of numbers up to 120 as they make connections between types of representations. They use amounts of hundreds, tens, and ones in a given representation, such as a pictorial representation of connecting cubes, standard form, and expanded form, to represent in a different way. Students use formal mathematical language to describe the composition of numbers up to 120 and recognize the importance of a digit's position in determining its value. **(TEKS 1.1.D, 1.1.E)**

Prior Learning

In Lesson 6, students represented numbers up to 120 using cubes and drawings.

Future Learning

In Lesson 8, students will find 10 more or 10 less than a given number up to 120.

Integrating Rigor in Student Thinking

- Students develop their **conceptual understanding** of the meanings of the digits in numbers up to 120.
- Students **apply** their understanding of place value to describe numbers up to 120 as amounts of hundreds, tens, and ones.

Vocabulary

Review Vocabulary

a hundred/hundreds

a one/ones

a ten/tens

digit

TEKS

Addressing

1.2.C

Use objects, pictures, and expanded and standard forms to represent numbers up to 120.

Math Process Standards: 1.1.D, 1.1.E

ELPS: 1.E, 2.B, 2.C, 2.E, 2.F, 4.D, 4.F

Building On	Building Toward
K.2.I	2.2.B

Building Math Identity

I can be all of me in math class.
What math ideas have you noticed in your community?

Invite students to reflect on this question as they complete this lesson.

Lesson at a Glance

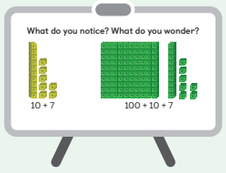
60 min

TEKS: 1.1.D, 1.1.E, 1.2.C

Warm-Up

Whole Class | 10 min

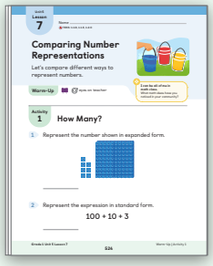
Students use the **Notice and Wonder** routine to share what they notice and wonder about base-ten representations of a two-digit number and a three-digit number.



Activity 1

Pairs | 15 min

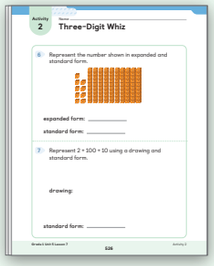
Students are given base-ten representations of three-digit numbers up to 120, including drawings, expanded form, and standard form. They interpret the representations by identifying the amounts of hundreds, tens, and ones and then represent each number in a different way.



Activity 2

Pairs | 15 min

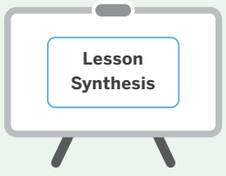
Students are given a base-ten representation of a three-digit number up to 120 to represent in 2 different ways. Then students compare base-ten representations to describe how the representations show the same number.



Synthesis

Whole Class | 5 min

Students review and reflect on the structure of three-digit numbers up to 120 and how the location of a digit determines its value.

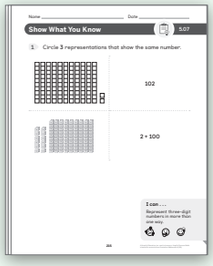


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by interpreting and identifying 3 different representations of the same three-digit number up to 120.

Materials: *Show What You Know* PDF



Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build their understanding of quantity.

- Cover Up
- Last Number Wins



Math Language Development

EB Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank



ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F, 4.C, 4.D, 4.F

Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** and **write** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** and **write** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** and **write** using a variety of sentence types.	Students **listen** to spoken English and **speak** and **write** using longer sentences. Exemplar responses are provided.

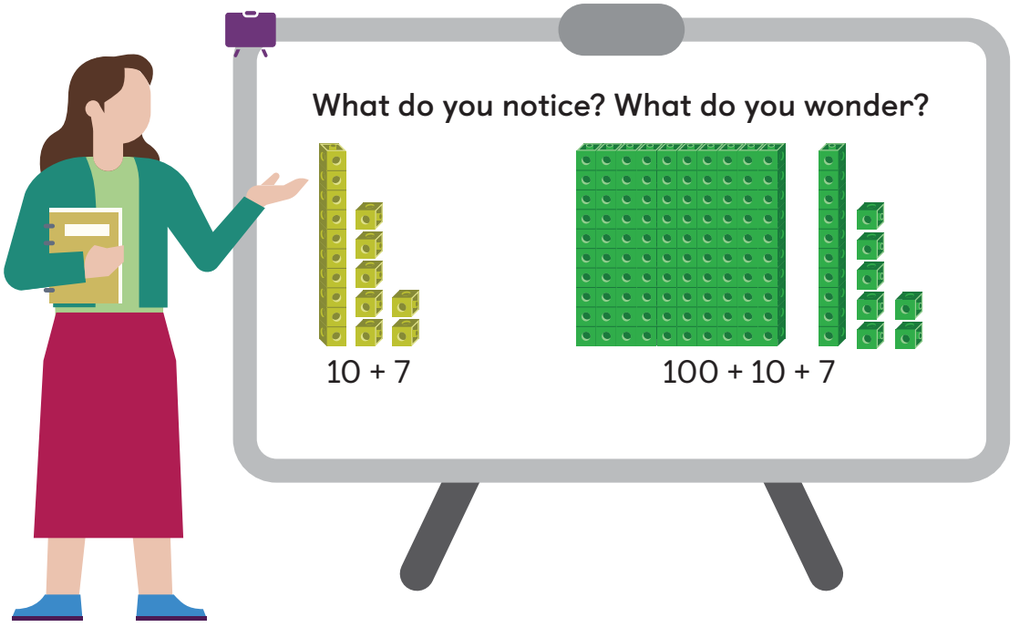
Whole Class | 10 min

Presentation Screen



Warm-Up Notice and Wonder

Purpose: Students examine representations of a number to make connections between digits and place value.





1 Launch

Display the image.

Use the Notice and Wonder routine.

Use the Think-Pair-Share routine. Ask, "What do you notice? What do you wonder?" Monitor for student use of high-frequency words, such as "I notice," "I wonder," and "number." ELPS 2.B

2 Connect

Record students' responses as they share.

Use the Think-Pair-Share routine. Ask, "How are the numbers represented? How could you represent each number in standard form by using numbers only?"

Students might say . . . ELPS 2.B

I notice the tens and ones places are represented as 10 + 7 in both numbers.

I notice the first number has 2 digits and the second number has 3 digits.

I wonder what the 100 represents in 100 + 10 + 7.

I wonder what happens if 3 ones are added to both numbers.

Pairs | 15 min

Activity 1 How Many?

Purpose: Students apply place value understanding to interpret base-ten representations and represent numbers in different ways using drawings, expanded form, or standard form.

Presentation Screens



Short on time? Consider omitting Problem 4.

1 Launch



Say, "Carmina asked the townfolk to keep track of how many wazzle-squashes they gather each day. Carmina needs help understanding some of the ways her neighbors show the number of wazzle-squashes they gathered."

Have students complete Problems 1—5. After each problem, have students compare responses with a partner. If students disagree about an answer, encourage them to work together to come to an agreement.

EB **Emergent Bilinguals** Provide sentence frames to support students with partner discussions. For example, display the frame, "I noticed . . ., so I represented . . ." ELPS 1.E, 2.C, 2.E

2 Monitor



After students have completed **Problem 2**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What do you notice about the representation?"
- Ask, "What digit represents the amount of hundreds? What digit represents the amount of tens? What digit represents the amount of ones?"

A **Accessibility: Conceptual processing** Guide processing by providing questions students could ask themselves, such as, "Where do I see a number of tens? How could I show the number of tens with drawings and numbers?"

3 Connect



Invite students to share their responses and strategies from Problem 2. Select and sequence their responses in the order shown in the *Differentiation* table.

Use the Think-Pair-Share routine. Ask:

- "What is a different way to show this number?"
- "Which representation is the easiest for you to understand? Why?"

Key Takeaway: Say, "Drawings, expanded form, and standard form can be used to represent the digits in a number.

Student Edition

Unit 5 Lesson 7

Name

TEKS: 1.1.D, 1.1.E, 1.2.C

Comparing Number Representations

Let's compare different ways to represent numbers.

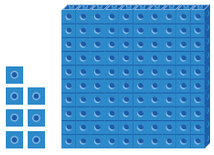


I can be all of me in math class.
What math ideas have you noticed in your community?

Warm-Up eyes on teacher

Activity 1 How Many?

1 Represent the number shown in expanded form.



100 + 7

2 Represent the expression in standard form.

100 + 10 + 3

113

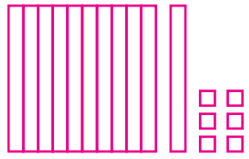
Activity 1

Name

How Many? (continued)

3 Represent 116 using a drawing. Sample response shown.

Show your thinking.



4 Represent 119 using expanded form or a drawing.

Show your thinking.

Sample response shown.

100 + 10 + 9

5 Discuss

How did you use the digits in the three-digit number to make your representation? Oral activity: No writing expected.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Determine the number represented in standard form using the order in which the amounts are represented.	100 + 10 + 3 = 100103	**Support** Point to the expanded form representation and ask, "What do you notice about how many tens and ones are represented?"
Determine the number represented in standard form as amounts of tens and ones.	One of the addends in expanded form is 3, which is 3 ones. I thought about how many tens are in 110 and that is 11 tens.	**Strengthen** Ask, "What new unit could you make with 11 tens?"
Determine the number represented in standard form as amounts of hundreds, tens, and ones.	100 + 10 + 3 = 113. I know 113 has 1 hundred, 1 ten, and 3 ones.	**Stretch** Ask, "Could the hundred, tens, and ones be represented in a different order? How do you know?"

Pairs | 15 min

Presentation Screens



Activity 2 Three-Digit Whiz

Purpose: Students apply place value understanding and represent numbers up to 120 in 2 different ways to describe the same value in each representation as an amount of hundreds, tens, and ones.

1 Launch



Say, "Carmina's neighbor agrees to help her understand some of the representations of the number of wazzle-squashes gathered but the neighbor only communicates using digits. Help the neighbor understand the number of wazzle-squashes represented."

Say, "For each problem, talk with your partner about how you figured out your answer before moving to the next problem."

Read aloud Problems 6–8.

2 Monitor



After students have completed **Problem 8**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What do you notice about the representation?"
- Ask, "How could you use the number of hundreds, tens, and ones to help you figure out the number?"

EB **Emergent Bilinguals** To support students in writing their responses to Problem 8, allow them to use a variety of sentence lengths and sentence types. Encourage the use of connecting words, such as "because." ELPS 4.D

3 Connect



Display the representations of 114 from Problem 8.

Use the Think-Pair-Share routine. Ask, "Where do you see hundreds, tens, and ones in each representation?"

MLR **MLR8: Discussion Supports — Active Listening** ELPS 1.E, 2.E, 2.F
Invite students to begin partner interactions by restating their partner's ideas in their own words before adding their own ideas to the discussion.

Say (while pointing to the respective digits in 114), "In three-digit numbers, there is a digit in the hundreds place, in the tens place, and in the ones place. This digit 1 in 114 represents 1 hundred. This digit 1 in 114 represents 1 ten. The 4 in 114 represents 4 ones."

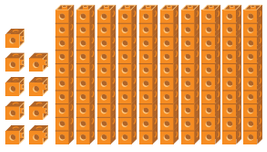
Key Takeaway: Say, "A three-digit number can be represented as an amount of hundreds, tens, and ones in more than 1 way."

Activity 2

Name _____

Three-Digit Whiz

6 Represent the number shown in expanded and standard form.

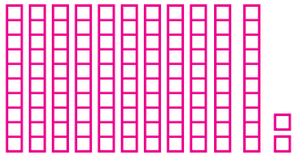


expanded form: 100 + 9

standard form: 109

7 Represent 2 + 100 + 10 using a drawing and standard form. Sample drawing shown.

drawing:



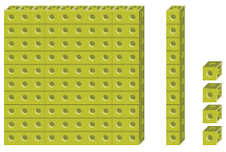
standard form: 112

Activity 2

Name _____

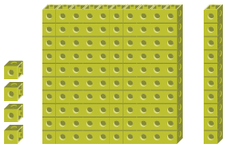
Three-Digit Whiz (continued)

8 How do the different ways to represent a number show the same amount? Sample response shown.



114

4 + 10 + 100



They show the same amount because each representation shows 1 hundred, 1 ten, and 4 ones. Even if the ones are shown first, it still shows 114.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Understand that each representation shows 114.	They show the number 114.	**Support** Point to each representation and ask, "How do you know each representation shows 114?"
Compare a drawing and standard form to describe how 114 is represented using connecting cubes.	There are 10 towers that represent 100, 1 tower that represents 10, and 4 singles that represent 4 to show 114.	**Strengthen** Ask, "What other representations of 114 do you notice? How do they all help you understand the value of the number?"
Compare all 3 representations to describe how each shows the same value using place value.	They show the same amount because each representation shows 1 hundred, 1 ten, and 4 ones. Even if the ones are shown first, it still shows 114.	**Stretch** Ask, "If a different three-digit number is represented, would representations such as drawings, expanded form, and standard form be helpful? Why or why not?"

Whole Class | 5 min

Synthesis

Presentation Screen



Lesson Takeaway: The value of each digit in numbers up to 120 can be represented in more than 1 way with drawings, expanded form, and standard form. You can use the value of each digit to describe how numbers can be composed as different amounts of hundreds, tens, and ones.



Say, "Today you represented a three-digit number in more than 1 way using drawings, expanded form, and standard form to show the number as an amount of hundreds, tens, and ones."

Say, "Carmina's classmate says both of these representations show the same number."

Use the Think-Pair-Share routine. Ask, "Do you agree or disagree?" Monitor for student use of high-frequency words, such as "I agree" and "I disagree." ELPS 2.B

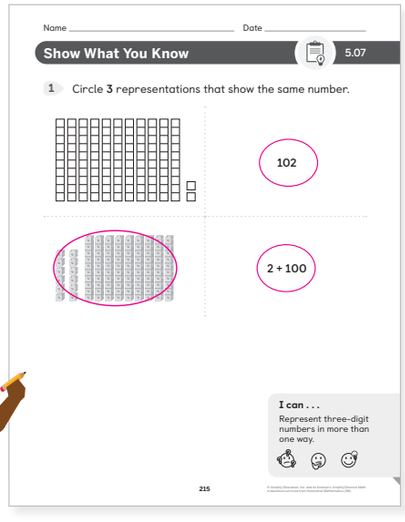
Say (if not yet mentioned during discussion), "The value of a digit depends on its place in the number. The digit in the hundreds place is always on the left. The digit in the tens place is always in the middle. The digit in the ones place is always on the right."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.07

1 Circle 3 representations that show the same number.

102

2 + 100

I can . . .
Represent three-digit numbers in more than one way.

215



Today's Goals

1. **Goal:** Represent numbers up to 120 in more than 1 way using drawings, standard form, and expanded form.
   - In the *Show What You Know,* students represented a three-digit number using a drawing, expanded form, and standard form.
2. **Language Goal:** Compare different ways to represent numbers up to 120 and describe how each shows a number composed of an amount of hundreds, tens, and ones. **(Listening, Speaking, and Writing)** ELPS 1.E, 2.E, 2.F, 4.D, 4.F

D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print

Summary 5.07

Like two-digit numbers, three-digit numbers up to 120 can be represented in different ways, including drawings, standard form, and expanded form, to show amounts of hundreds, tens, and ones.

112
standard form

100 + 10 + 2
expanded form

Practice 5.07

Choose from these Centers.

Cover Up
Add 7, 8, or 9

Cover Up
Add or Subtract 10

Last Number Wins
Numbers to 120 by 1

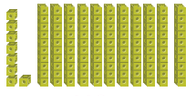
Practice 5.07

Name _____

For Problems 1–4, write the number that matches the representation.

Show your thinking.

1



118

2

20 + 100

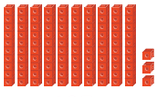
120

3

100 + 10 + 1

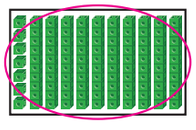
111

4



103

5 Circle the **3** representations that show 107.





7 + 100

10 + 7

100 + 10 + 7

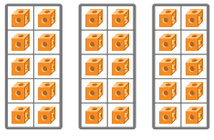
100 + 7

Practice 5.07

Name _____

Spiral Review

6 What is 10 more than the number of cubes shown?



answer: 40

7 What is 10 less than the number of cubes shown?



answer: 40

8 Fill in the number pattern.

30, 40, 50, 60, 70, 80

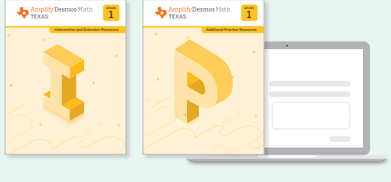
9 Fill in the number pattern.

10, 20, 30, 40 , 50

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–5	1	1.2.C
Spiral Review			
Fluency	6, 7	1	1.5.C
	8, 9	1	1.5.B

Need more Practice?

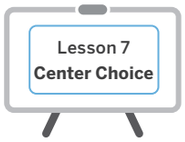


Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Presentation Screen



Cover Up

Add 7, 8 or 9

Pairs | 15 min | 1.3.D, 1.5.G

Students add 7, 8, or 9 to a number between 0 and 10.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.

Cover Up

Add or Subtract 10

Pairs | 15 min | 1.5.C

Students choose a multiple of 10 within 100 and add or subtract 10 to practice place-value based strategies.

Materials

- number cards (multiples of 10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Last Number Wins

10 11 12

Numbers to 120 by 1

Pairs | 15 min | 1.5.A

Students take turns writing numbers in a counting sequence to practice counting by 1 and writing numbers up to 120.

Materials

- dry erase markers, sheet protectors **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 7

Lesson Goal: Represent numbers up to 120 in more than 1 way using drawings, standard form, and expanded form.

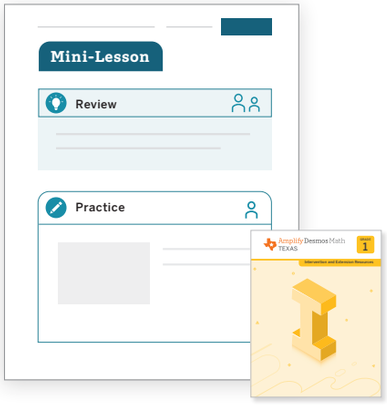
Support

Provide targeted intervention for students by using these resources.

If students represent a three-digit number in 1 way:

Respond:

- Assign the *Representing and Identifying Three-Digit Numbers* Mini-Lesson. | 15 min
- Invite students to discuss the value of digits in the hundreds, tens, and ones places with a partner.



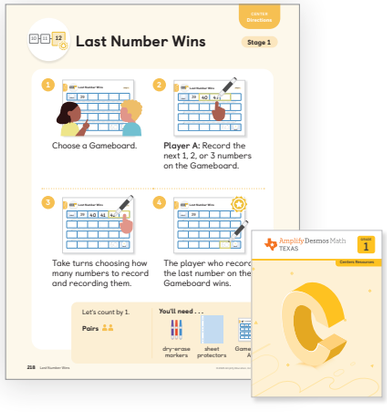
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students represent a three-digit number in more than 1 way:

Respond:

- Invite students to play these **Centers.** | 15 min
  Last Number Wins: Numbers to 99 by 1
  Cover Up:
  - *Add 7, 8, or 9*
  - *Add or Subtract 10*
- Have students complete **Lesson 7 Practice.** | 15 min
- **Item Bank**



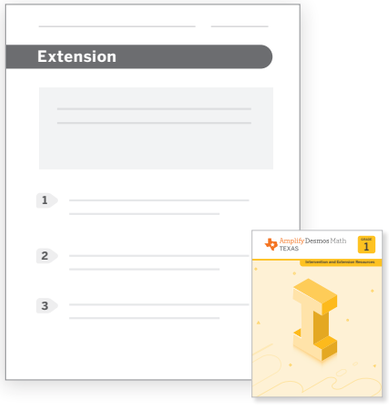
Stretch

Challenge students and extend their learning with these resources.

If students represent a three-digit number in more than 1 way using place value reasoning:

Respond:

- Invite students to explore the **Sub-Unit 2 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min



Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates, e.g., digit/dígito
- Frayer Model templates
- Vocabulary routines

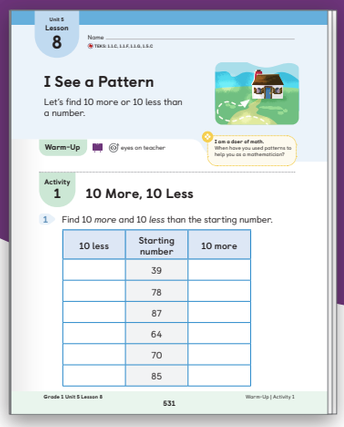


Professional Learning

What unfinished learning or misunderstandings do your students have about representing amounts of hundreds, tens, and ones? How did you leverage those misconceptions in a positive way to further the understanding of the class?

Unit 5
Lesson
8

Student Edition pages and Presentation Screens support learning in this lesson.



I See a Pattern

Finding 10 More and 10 Less up to 120

Let's find 10 more or 10 less than a number.

Key Concepts

Today's Goals

1. **Goal:** Determine the number that is 10 more and 10 less than a given number up to 120.
2. **Language Goal:** Describe place value relationships when finding 10 more or 10 less than a number. **(Listening and Speaking)** **ELPS 1.E, 2.E, 2.F**
3. **Language Goal:** Explain how to use place value relationships to find 10 more or 10 less than a number. **(Listening and Speaking)** **ELPS 1.E, 2.E, 2.F**

Connections and Coherence

Students find 10 more and 10 less than a given number up to 120 and discuss the patterns in place value relationships that they notice. Although students have previously explored strategies for finding 10 more and 10 less than a multiple of 10, this lesson focuses on identifying and using patterns in the numerals to find 10 more and 10 less without counting. Students may notice that when they find 10 more or 10 less than a given two- or three-digit number, the digit in the tens place increases or decreases by 1, respectively. This is not a pattern that is generalizable to all numbers and students reflect on patterns in place value that they notice when the digit 0 or 9 is in the tens place. **(TEKS 1.1.C, 1.1.F, 1.1.G)**

Prior Learning

In Unit 4, students explored strategies to find 10 more or 10 less than a multiple of 10 within 100.

Future Learning

In Sub-Unit 3, students will explore strategies for comparing numbers up to 120 including using place value understanding.

Integrating Rigor in Student Thinking

- Students develop their **conceptual understanding** of how to use place-value based strategies to find 10 more and 10 less mentally.

Vocabulary

Review Vocabulary

a ten/tens

digit

TEKS

Addressing

1.5.C

Use relationships to determine the number that is 10 more and 10 less than a given number up to 120.

Math Process Standards: 1.1.C, 1.1.D, 1.1.F, 1.1.G

ELPS: 1.C, 1.E, 2.B, 2.C, 2.D, 2.E, 2.F, 3.F

Building On	Building Toward
K.5.A	2.7.B

Building Math Identity

I am a doer of math.

When have you used patterns to help you as a mathematician?

Invite students to reflect on this question as they complete this lesson.

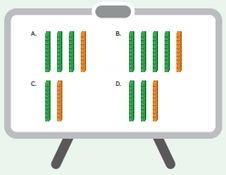
Lesson at a Glance 60 min

TEKS: 1.1.C, 1.1.D, 1.1.F, 1.1.G, 1.5.C

Warm-Up

Whole Class | 10 min

Students use the **How Many Do You See?** routine to analyze 4 images representing a number with towers of 10 cubes. Students may notice that one representation shows 10 more than another representation and one representation shows 10 less than another representation. **(TEKS 1.1.D)**

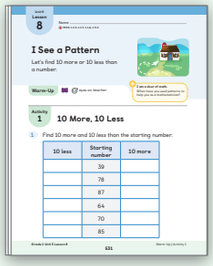


Activity 1 Fluency

Pairs | 15 min

Students find 10 more and 10 less than a given two-digit number. They describe patterns in place value they notice to help them determine 10 more and 10 less.

Manipulative Kit: connecting cubes (as needed)



Activity 2 Fluency

Pairs | 15 min

Students find 10 more or 10 less than a three-digit number repeatedly. They discuss the patterns in place value they notice when the digits 0 or 9 are present in the tens place.

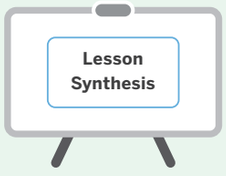
Manipulative Kit: connecting cubes (as needed)



Synthesis

Whole Class | 5 min

Students review and reflect on how the digits in the hundreds and tens places change when finding 10 more and 10 less than a number.

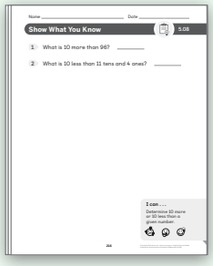


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by determining 10 more than a two-digit number and 10 less than a three-digit number.

Materials: *Show What You Know* PDF



Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build their understanding of quantity.

- Cover Up
- Last Number Wins



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.



- ✓ Cognates
- ✓ Visuals
- ✓ Frayer model
- ✓ Sentence frames and word bank

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F

Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

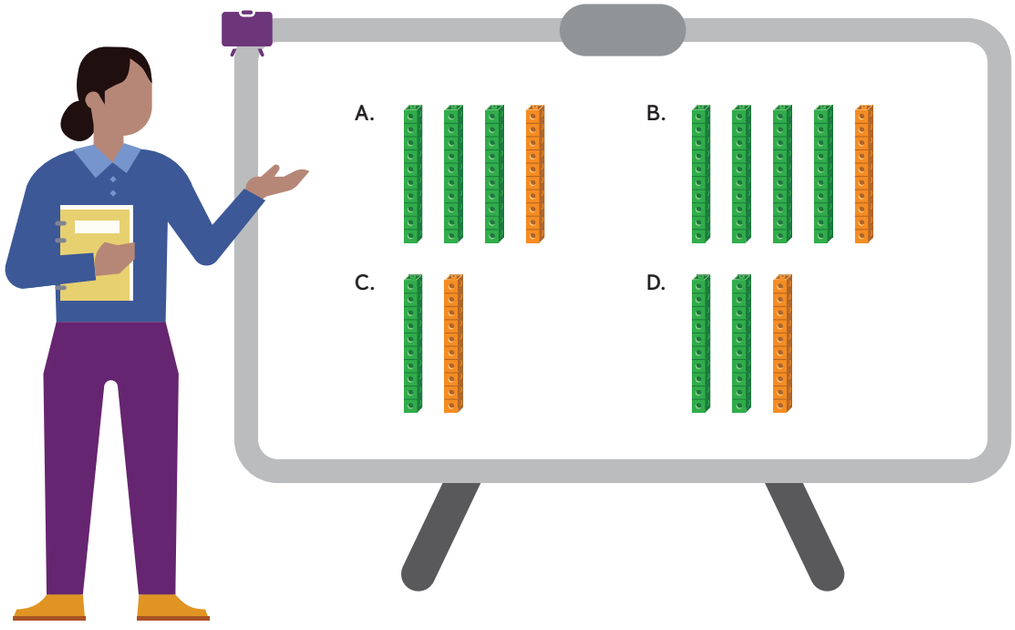
Whole Class | 10 min

Presentation Screens



Warm-Up How Many Do You See?

Purpose: Students determine the number of cubes to find patterns in finding 10 more than a multiple of 10.



Why these images? These images lend themselves to counting by tens and adding 10 more.

1 Launch

Use the How Many Do You See? routine.

Flash Image A for 2–5 seconds, and ask, "How many do you see?"

Say, "Give me a signal when you have an answer."

Display the image again, leaving it displayed to discuss.



2 Connect

Record 2 or 3 students' responses, and ask, "How did you see them?"

Repeat for each image, spending the most time discussing Images C and D.

Ask, "How are the tens in Image C different from the tens in Image D?"

Say (if not yet mentioned during discussion), "Image D shows 1 more ten or 10 more than Image C."

Students might say . . . ELPS 2.C, 2.D

A: *I see 30 and 10, which is 40.*

B: *5 groups of 10 is 50.*

C: *1 tower is 10 and 1 tower is 10 so I see 20.*

D: *Since 2 tens is 20 and 10 more is 30, I see 30.*

Pairs | 15 min

Activity 1 10 More, 10 Less

Purpose: Students determine 10 more and 10 less than a given two-digit number to notice place value relationships.

Presentation Screens



Materials

Manipulative Kit:

- Provide students with access to connecting cubes (as needed).

Short on time? Consider omitting Problem 3.

1 Launch



Say, "The amount of wazzle-squashes used for activities at the festival are always changing. Just like the amount of wazzle-squashes change, numbers change when finding more or less. As you find 10 more and 10 less than a number, think about the place value relationships you notice about how the numbers change."

Read aloud Problems 1–3.

EB **Emergent Bilinguals** Consider pairing students with partners who speak the same primary language and inviting them to share and receive feedback in their primary language or using a mixture of their primary language and English.
ELPS 1.C, 1.E, 2.C, 2.F

2 Monitor



After students have completed **Problem 3**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "How can patterns in place value help you find 10 more? 10 less?"
- Ask, "What do you already know about finding 10 more? 10 less?"

A **Accessibility: Visual-spatial processing** Make connecting cubes available to students to support their ability to find and represent 10 more or 10 less.

3 Connect



Invite students to share their responses for Problem 3. Select and sequence their responses in the order shown in the *Differentiation* table.

Use the Think-Pair-Share routine. Ask, "Is this true for all two-digit numbers? How could you find 10 more and 10 less than 98?" Monitor for student use of high-frequency words, such as "true," "false", "10 more," and "10 less." ELPS 2.B

Key Takeaway: Say, "For most two-digit numbers, when you find 10 more and 10 less, the tens place changes and the ones place stays the same."

Unit 5 Lesson 8

Name _____

TEKS: 1.1.C, 1.1.F, 1.1.G, 1.5.C

I See a Pattern

Let's find 10 more or 10 less than a number.



Warm-Up eyes on teacher

I am a doer of math.
When have you used patterns to help you as a mathematician?

Activity 1 — 10 More, 10 Less

1 Find 10 *more* and 10 *less* than the starting number.

10 less	Starting number	10 more
29	39	49
68	78	88
77	87	97
54	64	74
60	70	80
75	85	95

Activity 1

Name _____

10 More, 10 Less (continued)

2 Discuss Oral activity: No writing expected.

What patterns do you notice?

- When I find 10 less, I notice _____.
- When I find 10 more, I notice _____.
- When I find 10 more or 10 less, I notice _____.

3 Write **1** pattern you noticed when finding 10 more or 10 less. Sample response shown.

When I find 10 more or 10 less, I notice only the digit in the tens place changes.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Notice the number increased when finding 10 more and decreased when finding 10 less.	When we found 10 more, the answer was more. When we found 10 less, the answer was less.	S **Strengthen** Ask, "What do you notice about the digits in the numbers you wrote for 10 less and 10 more?"
Notice the digit in the tens place changed and the digit in the ones place did not change.	When we found 10 more or 10 less, the digit in the tens place changed and the digit in the ones place did not change.	S **Strengthen** Ask, "How did the digit in the tens place change?"
Notice the digit in the tens place changed by 1 each time and notice the digit in the ones place did not change.	When we found 10 more, the digit in the tens place became greater by 1. When we found 10 less, the digit in the tens place became less by 1. The digit in the ones place did not change.	S **Stretch** Ask, "What do you think happens to the digit in the tens place when you find 20 more or 20 less?"

Pairs | 15 min

Activity 2 Patterns With Tens

Purpose: Students apply patterns with place value to determine 10 more and 10 less than a number up to 120 without counting.

Presentation Screens



Materials

Manipulative Kit:

- Provide students with access to connecting cubes (as needed).

1 Launch



Read aloud the directions.

Say, "Think about the place value relationships you noticed in Activity 1 as you find 10 more and 10 less than a three-digit number."

A **Accessibility: Visual-spatial processing** Make connecting cubes available to students to support their ability to find and represent 10 more or 10 less.

2 Monitor



After students have completed **Problem 7**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What do you know about the starting number?"
- Ask, "How can you represent the starting number to help you find 10 more? 10 less?"

3 Connect



MLR **MLR1: Stronger and Clearer Each Time** ELPS 1.E, 2.E

Have students meet with 1–2 other students to share their responses to Problem 6. Encourage listeners to ask clarifying questions using stems, such as:

- "What do you mean by . . .?"
- "Can you tell me more about . . .?"

Have students revise their responses based on the feedback they receive.

Use the Think-Pair-Share routine. Ask:

- "How could you use patterns to find 10 more or 10 less?"
- "Did your thinking change when you met with a classmate? How did it change?"

Key Takeaway: Say, "You can use patterns in place value to help you find 10 more and 10 less than a three-digit number up to 120 without counting. It can be helpful to think about how the digit in the hundreds place and in the tens place should change."

Activity 2

Name _____

Patterns With Tens

Use patterns to find each new number.

4	Start with 9 tens and 9 ones. What is 10 more?	109
5	Start with 10 tens. What is 10 more?	110
6	Start with 9 tens and 5 ones. What is 10 more?	105
7	Start with 10 tens and 6 ones. What is 10 more?	116

8 Discuss Oral activity: No writing expected.

What patterns do you notice as you find 10 more in Problem 4?

When I find 10 more, the patterns I notice are _____.

Activity 2

Name _____

Patterns With Tens (continued)

Use patterns to find each new number.

9	Start with 10 tens and 8 ones. What is 10 less?	98
10	Start with 11 tens and 1 one. What is 10 less?	101
11	Start with 10 tens and 7 ones. What is 10 less?	97
12	Start with 11 tens and 4 ones. What is 10 less?	104

13 Discuss Oral activity: No writing expected.

What patterns do you notice as you find 10 less in Problem 9?

When I find 10 less, the patterns I notice are _____.

Presentation Screens

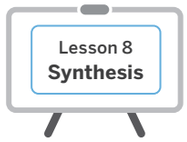
D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Determine 10 more by counting by 1.	96, 97, 98, . . . , 105	S **Strengthen** Ask, "What patterns in place value shared in Activity 1 could you use to find 10 more without counting?"
Determine 10 more by counting on by 10.	95, 105	
Determine 10 more by using patterns in place value.	1 more ten than 9 tens is 10 tens, or 100. The ones place stays the same so the new number is 105.	S **Stretch** Ask, "Do you think this strategy will always work? Can you think of an example in which this is not true?"

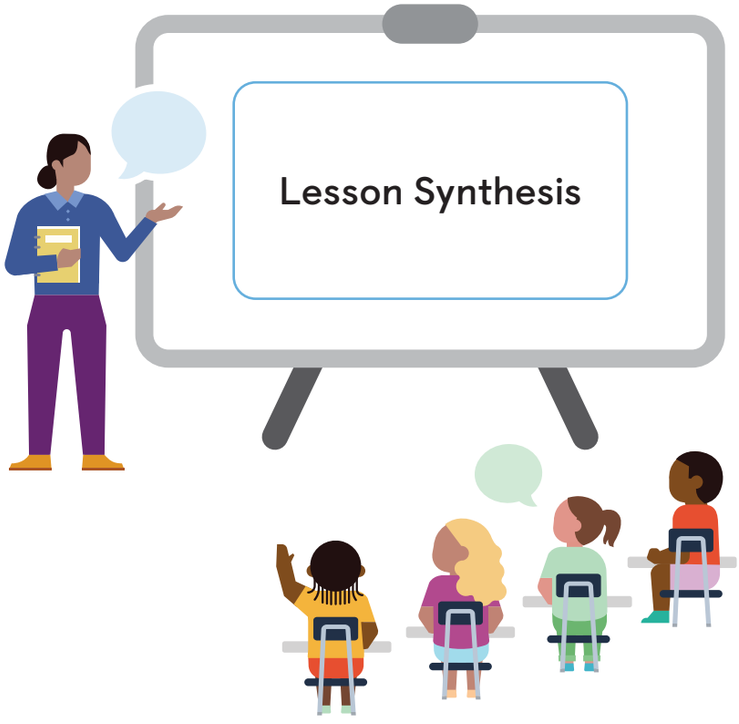
Whole Class | 5 min

Synthesis

Presentation Screens



Lesson Takeaway: When finding 10 more or 10 less than a number up to 120, understanding patterns in place value and how the digits in the hundreds and tens places change can be helpful to find the new number without counting.



Say, "Carmina counted a number of wazzle-squashes and wrote a three-digit number to represent how many she has. Part of the number she wrote got covered up."

Use the Think-Pair-Share routine. Ask:

- "What number could be 10 more? How do you know?"
- "What number could be 10 less? How do you know?"

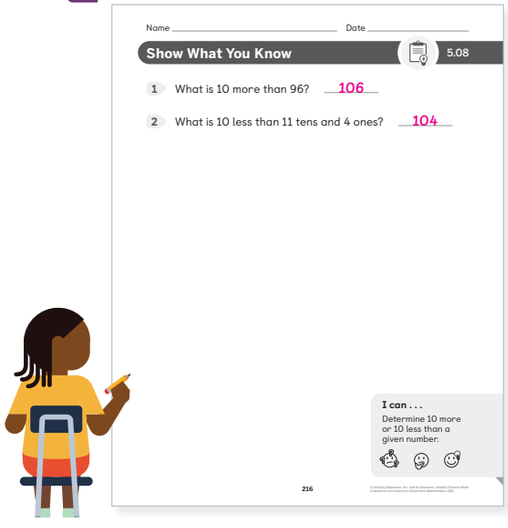
Say, "When finding 10 more and 10 less, the digit in the hundreds place sometimes changes, the digit in the tens place always changes, and the digit in the ones places never changes."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.08

1 What is 10 more than 96? 106

2 What is 10 less than 11 tens and 4 ones? 104

I can . . .
Determine 10 more or 10 less than a given number.

216

Lesson Goals

1. **Goal:** Determine the number that is 10 more and 10 less than a given number up to 120.
   - In Problem 1 in the *Show What You Know*, students determined 10 more than a two-digit number.
   - In Problem 2 in the *Show What You Know*, students determined 10 less than a three-digit number.
2. **Language Goal:** Describe place value relationships when finding 10 more or 10 less than a number. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F
3. **Language Goal:** Explain how to use place value relationships to find 10 more or 10 less than a number. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

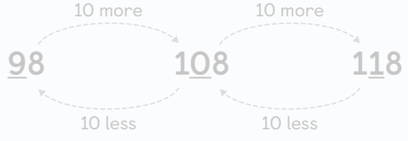
Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print

Summary 5.08

When finding 10 more or 10 less than a number, the digit in the hundreds place sometimes changes, the digit in the tens place always changes, and the digit in the ones places never changes.



Practice 5.08

Choose from these Centers.


Cover Up
Doubles


Cover Up
Near Doubles



Last Number Wins
Numbers to 120 by 1

Practice 5.08

Name _____

For Problems 1–6, find 10 more and 10 less than the starting number.

	10 less	Starting number	10 more
1	47	57	67
2	72	82	92
3	67	77	87
4	84	94	104
5	92	102	112
6	99	109	119

7 What is 10 more than 10 tens and 1 one? 111

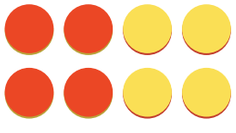
8 What is 10 less than 10 tens and 1 one? 91

Practice 5.08

Name _____

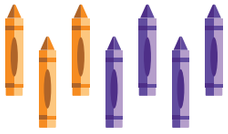
Spiral Review

9 Write a number sentence to show how many counters there are.



answer: 4 + 4 = 8

10 Write a number sentence to show how many crayons there are.



answer: 3 + 4 = 7

11 Circle **4** equations that show equal values on both sides.

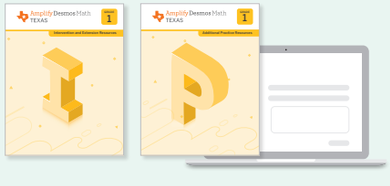
9 − 7 = 10 − 8 | 9 − 5 = 7 − 5 | 9 − 6 = 1 + 1 + 1

8 + 2 = 5 + 5 | 9 = 6 + 3 | 5 + 4 = 9 − 9

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
Fluency	1–8	1	1.5.C
Spiral Review			
	9, 10	1	K.3.A
Fluency	11	1	1.5.E

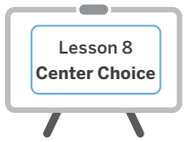
Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Presentation Screen



Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Cover Up

Doubles

Pairs | 15 min | 1.3.D

Students double numbers between 0 and 10.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 1.

Cover Up

Near Doubles

Pairs | 15 min | 1.3.D, 1.5.G

Students double a number between 0 and 10 and then add or subtract 1.

Materials

- number cards (0–10), two-color counters **(Manipulative Kit)**
- Directions, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 1.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Last Number Wins

10 11 12

Numbers to 120 by 1

Pairs | 15 min | 1.5.A

Students take turns writing numbers in a counting sequence to practice counting by 1 and writing numbers up to 120.

Materials

- dry erase markers, sheet protectors **(Classroom materials)**
- Directions, Gameboards A–D **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 8

Lesson Goal: Determine the number that is 10 more and 10 less than a given number up to 120.

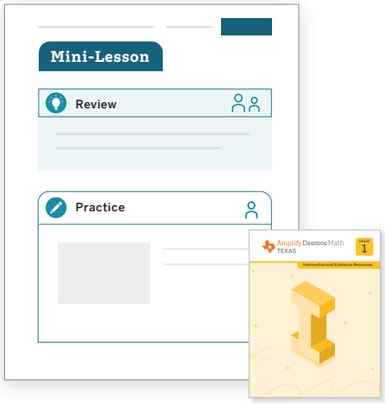
Support

Provide targeted intervention for students by using these resources.

If students determine a number other than 10 more or 10 less than a given number:

Respond:

- Assign the *Finding 10 More and 10 Less Up to 120* Mini-Lesson. | 15 min
- Invite students to discuss patterns they notice when determining 10 more or 10 less than a number with a partner.



Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students count by 10 to determine 10 more or 10 less than a given number:

Respond:

- Invite students to play these **Centers.** | 15 min
  Counting Collections: Up to 99
  Last Number Wins: Numbers to 99 by 10
  Cover Up: Add or Subtract 10
- Have students complete **Lesson 8 Practice.** | 15 min
- **Item Bank**



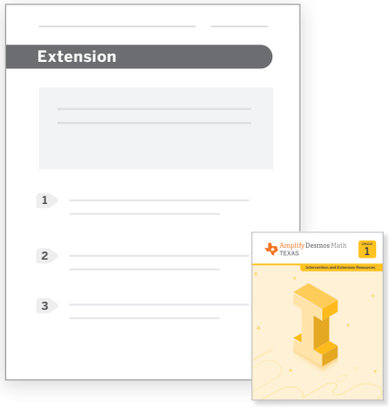
Stretch

Challenge students and extend their learning with these resources.

If students use patterns in place value to find 10 more or 10 less than a given number:

Respond:

- Invite students to explore the **Sub-Unit 2 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min

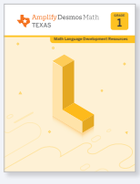


Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates, e.g., digit/dígito
- Frayer Model templates
- Vocabulary routines



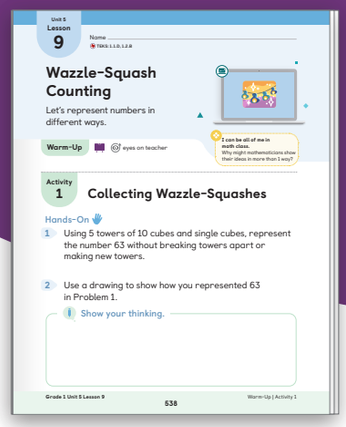


Professional Learning

Why is a strong understanding of the unit ten necessary to add or subtract 10 mentally?

Unit 5
Lesson
9

Student Edition pages, Manipulatives, and Presentation Screens support learning in this lesson.



Wazzle-Squash Counting

Representing Numbers up to 120 Using Different Hundreds, Tens, and Ones

Let's represent numbers in different ways.

Key Concepts

Today's Goals

1. **Goal:** Create equivalent representations of numbers up to 120 by composing and decomposing numbers using different amounts of hundreds, tens, and ones.
2. **Language Goal:** Justify whether 2 representations of a number have the same value. **(Listening, Speaking, and Writing)** **ELPS 1.E, 2.E, 2.F, 4.D, 4.F**

Connections and Coherence

Students create equivalent representations of numbers up to 120 using different amounts of hundreds, tens, and ones in each representation. This provides students with a foundation for composing and decomposing when adding within 100. Students are encouraged to represent numbers using towers of 10 cubes and single cubes, and base-ten drawings. They notice patterns in the amounts of hundreds, tens, and ones as tens are composed of groups of 10 tens and decomposed into groups of 10 ones. **(TEKS 1.1.D)**

Prior Learning

In Lesson 7, students represented numbers up to 120 in a variety of ways, including base-ten drawings, expanded form, and standard form.

Future Learning

In Lesson 10, students will interpret equivalent representations of numbers up to 120 using objects and drawings.

Integrating Rigor in Student Thinking

- Students deepen their **conceptual understanding** of place value by exploring representations of numbers up to 120 that show amounts of hundreds, tens, and ones in different but equivalent ways.
- Students **apply** their understanding of the meanings of the digits to represent the same numbers up to 120 with amounts of hundreds, tens, and ones in more than 1 way.

Vocabulary

Review Vocabulary

a hundred/hundreds

a one/ones

a ten/tens

TEKS

Addressing

1.2.B

Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.

Math Process Standards: 1.1.D, 1.1.F, 1.1.G

ELPS: 1.E, 2.C, 2.D, 2.E, 2.F, 3.F, 4.D, 4.F

Building On	Building Toward
K.2.I	2.2.A

Building Math Identity

I can be all of me in math class.
Why might mathematicians show their ideas in more than 1 way?

Invite students to reflect on this question as they complete this lesson.

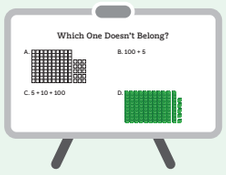
Lesson at a Glance 60 min

TEKS: 1.1.D, 1.1.F, 1.1.G, 1.2.B

Warm-Up

Whole Class | 10 min

Students use the **Which One Doesn't Belong?** routine to compare different base-ten representations of three-digit numbers. They should be encouraged to analyze the different amounts of hundreds, tens, and ones. **(TEKS 1.1.F, 1.1.G)**



Activity 1

Pairs | 15 min

Students are challenged to represent the number 63 using 5 towers of 10 cubes and single cubes. They explore different ways to represent two-digit numbers using different amounts of tens and ones.

Manipulative Kit: connecting cubes
Additional Prep Assemble: towers of 10 cubes and single cubes (5 towers for each pair)

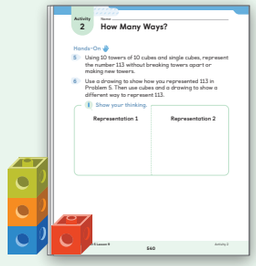


Activity 2

Pairs | 15 min

Students represent three-digit numbers up to 120 in 2 ways using different amounts of hundreds, tens, and ones in each representation. They notice and discuss patterns in the amounts of tens and ones.

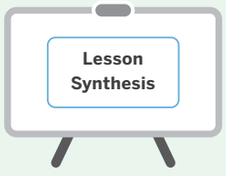
Manipulative Kit: connecting cubes
Additional Prep Assemble: towers of 10 cubes and single cubes (10 towers for each pair)



Synthesis

Whole Class | 5 min

Students review and reflect on the different ways that a number up to 120 can be represented with different amounts of hundreds, tens, and ones.

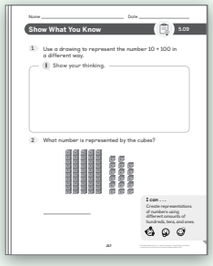


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by creating equivalent representations through composing and decomposing two- and three-digit numbers up to 120 using amounts of hundreds, tens, and ones.

Materials: *Show What You Know* PDF



Center Choice Time

Small Groups | 15 min

Students have an opportunity to revisit these Centers to practice comparing two-digit numbers, counting by 10 from any number, and writing two-digit numbers.

- Greatest of Them All
- Last Number Wins
- Mystery Number



Math Language Development

EB Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 2, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank



ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F, 4.C, 4.D, 4.F

Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** and **write** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** and **write** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** and **write** using a variety of sentence types.	Students **listen** to spoken English and **speak** and **write** using longer sentences. Exemplar responses are provided.

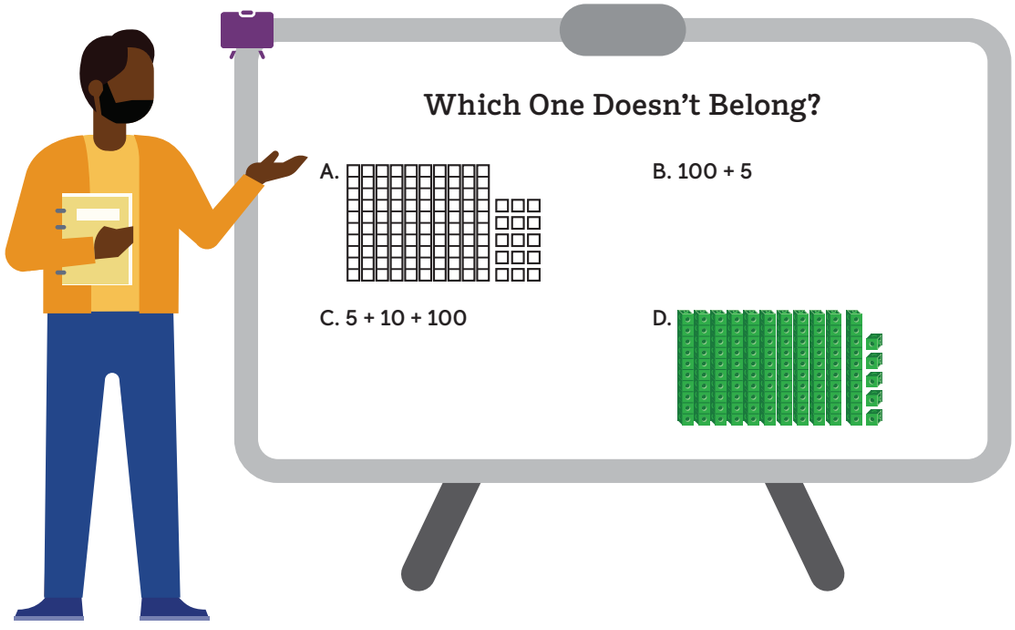
Whole Class | 10 min

Presentation Screens



Warm-Up Which One Doesn't Belong?

Purpose: Students analyze and compare different base-ten representations of numbers up to 120 to prepare them for representing numbers up to 120 with different amounts of hundreds, tens, and ones.



1 Launch

Display the 4 representations.

Use the Which One Doesn't Belong? routine.

Say, "Choose one that doesn't belong. Be ready to share your reasoning."



2 Connect

Record students' responses as they share.

Ask (if not yet mentioned during discussion), "Do all 4 representations show the same number? How do you know?"

Say, "For Representations A and B, you can figure out the number of the given representations by finding the total value of the hundreds, tens, and ones."

Students might say . . . ELPS 2.C, 2.D, 2.E

A: *It is the only representation with a lot of ones.*

B: *It is the only representation that doesn't show 115.*

C: *It is the only representation that shows the ones, tens, and then the hundreds.*

D: *It is the only representation that is built with cubes.*

Pairs | 15 min

Activity 1 Collecting Wazzle-Squashes

Purpose: Students compose and decompose two-digit numbers using single cubes and a limited amount of towers of 10 cubes to explore representing a two-digit number using different amounts of tens and ones.

Presentation Screens



Materials

Manipulative Kit:

- Distribute connecting cubes and five towers of 10 cubes to each pair.

Short on time? Consider completing Problems 1 and 2 as a class.

1 Launch



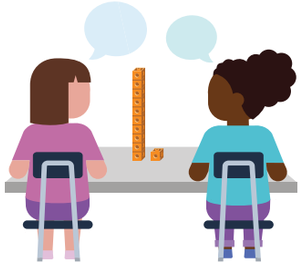
Say, "Carmina and the townsfolk had to collect wazzle-squashes to bring back to their house to work on for the festival. Carmina said she could represent how many wazzle-squashes each person collected and her Aunt Marta could guess the number. Carmina put towers of 10 cubes and single cubes on the table. She was careful not to take any of the towers apart because she thought she might need them for her math homework later."

Say, "Carmina has 10 towers of 10 cubes, and as many single cubes as she needs, but sometimes, Carmina likes to make it tricky for her aunt."

Read aloud Problems 1–4.

A **Accessibility: Executive functioning** Invite partners to make a plan for how they will complete the problems. Have them take turns sharing what they know and asking clarifying questions before representing the number.

2 Monitor



After students have completed **Problem 1**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "In your own words, what do you need to do?"
- Ask, "What do you know about the number that might help you represent it?"

3 Connect



Invite students to share their responses to Problems 1 and 2.

Use the Think-Pair-Share routine. Ask, "63 has 6 tens and 81 has 8 tens. How could you show these numbers without having enough tens?"

Say (if not yet mentioned during discussion), "In each of these representations, one of the tens is represented as 10 ones."

Key Takeaway: Say, "You can use objects and drawings to help you represent and describe the value of each digit. The digit in the tens place represents the number of tens a number has. You can represent each ten as 1 ten or as 10 ones."

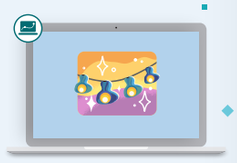
Unit 5
Lesson 9

Name _____

TEKS: 1.1.D, 1.2.B

Wazzle-Squash Counting

Let's represent numbers in different ways.



Warm-Up eyes on teacher

I can be all of me in math class.
Why might mathematicians show their ideas in more than 1 way?

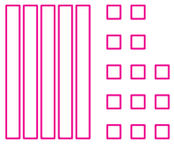
Activity 1 Collecting Wazzle-Squashes

Hands-On

1 Using 5 towers of 10 cubes and single cubes, represent the number 63 without breaking towers apart or making new towers.
Oral activity: No writing expected.

2 Use a drawing to show how you represented 63 in Problem 1. Sample response shown.

Show your thinking.

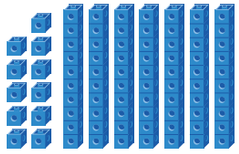


Activity 1

Name _____

Collecting Wazzle-Squashes (continued)

3 What number is represented by the cubes?



81

4 Discuss

How do you know the representations in Problems 1 and 2 show the same value?

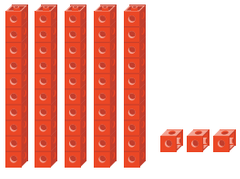
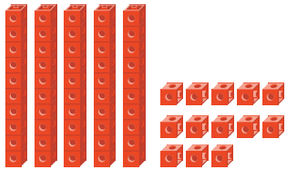
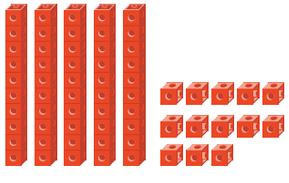
They show the same value because _____.

Oral activity: No writing expected. Sample response shown.

They show the same value because 5 tens and 10 ones make 60, so it's 63.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Represent 63 using the 5 towers of 10 and 3 ones.		**Support** Ask, "You used 5 towers of 10 and 3 single cubes. What number does this represent? How could you change your representation to show 63?"
Represent 63 using 5 towers of 10 and 13 ones by counting on from 50 by 1.		**Strengthen** Ask, "You counted by 1 to figure out the number of single cubes you needed to show 63. How could you use what you know about the number of tens in a number to help you figure out the number of single cubes you need?"
Represent 63 using 5 towers of 10 and 13 ones by reasoning that one of the tens can be represented with 10 ones.	 *63 has 6 tens and 3 ones. Because I can only use 5 towers of 10, I used 10 single cubes to make the sixth ten and 3 more single cubes for the 3 ones.*	**Stretch** Ask, "How could you use this reasoning to represent 63 with 4 towers of 10 cubes?"

Pairs | 15 min

Activity 2 How Many Ways?

Purpose: Students compose and decompose three-digit numbers up to 120 with objects and pictures to explore equivalent representations using different amounts of hundreds, tens, and ones.

Presentation Screens



Materials

Manipulative Kit:

- Distribute connecting cubes and ten towers of 10 cubes to each pair.

1 Launch



Say, "You have been exploring how one number can be represented using different amounts of tens and ones. Because we know 10 ones make 1 ten, let's see if this can work for three-digit numbers as well. Unfortunately, Carmina only had 10 towers of 10 and single cubes."

Read aloud Problems 5–9.

2 Monitor



While students complete **Problem 8**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What do you know about the number you are being asked to represent?"
- Ask, "How can thinking about the value of each digit help you represent the number with amounts of hundreds, tens, and ones?"

3 Connect



Use the Think-Pair-Share routine. Ask, "What are the different ways to figure out what the number 9 tens and 27 ones represents?"

MLR **MLR8: Discussion Supports — Active Listening** ELPS 1.E, 2.C, 2.D, 2.F
Invite students to begin partner interactions by restating their partner's ideas, in their own words, before adding their own ideas to the discussion. Invite students to speak using informal language and monitor their responses for increasing accuracy and fluency.

EB **Emergent Bilinguals** As students share what they notice, add annotations to the different representations to highlight connections students make and to support comprehension. For example, label or color code the 9 tens and 27 ones displayed and use the same labels or color coding to highlight the 11 tens and 7 ones. Invite students to continue making connections as more representations are shared. ELPS 3.F

Say, "You can count 9 tens as 90 and then count on 27 ones, or you can start at 90 and add 2 more tens and 7 ones."

Key Takeaway: Say, "You can represent the values of numbers using objects and drawings as so many hundreds, tens, and ones. One hundred can be broken into 10 tens and each ten can be broken into 10 ones."

Activity 2

Name _____

How Many Ways?

Hands-On

5 Using 10 towers of 10 cubes and single cubes, represent the number 113 without breaking towers apart or making new towers. Oral activity: No writing expected.

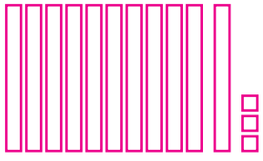
6 Use a drawing to show how you represented 113 in Problem 5. Then use cubes and a drawing to show a different way to represent 113. Sample response shown.

Show your thinking.

Representation 1



Representation 2



Activity 2

Name _____

How Many Ways? (continued)

7 What number is represented by the cubes?



117

8 Draw another way to show the number from Problem 7.

Show your thinking.

Sample response shown.



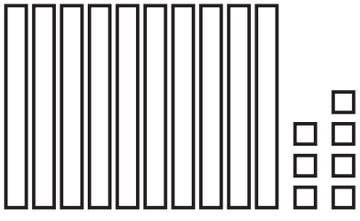
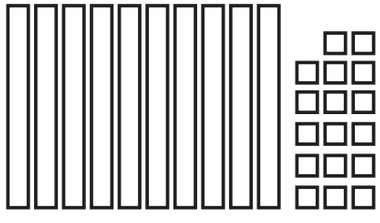
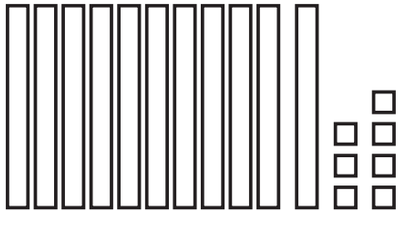
9 How do you know your drawing for Problem 8 shows a number with the same value as Problem 7?

Sample response shown.

It shows the same because 10 tens make 100, 1 ten and 7 ones make 17, so it's 117.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Create a representation that shows a different number.		**Support** Ask, "How could you use the representation in the problem to help you show the same value?"
Create an equivalent representation that shows a different amount of tens and ones.		**Strengthen** Ask, "You represented 117 in a different way to show 10 tens and 17 ones. How could you change your representation to use the most amount of tens and the least amount of ones?"
Create an equivalent representation using the most amount of tens and the least amount of ones.		**Stretch** Ask, "How could you know when you have found all possible combinations of tens and ones that represent 117?"

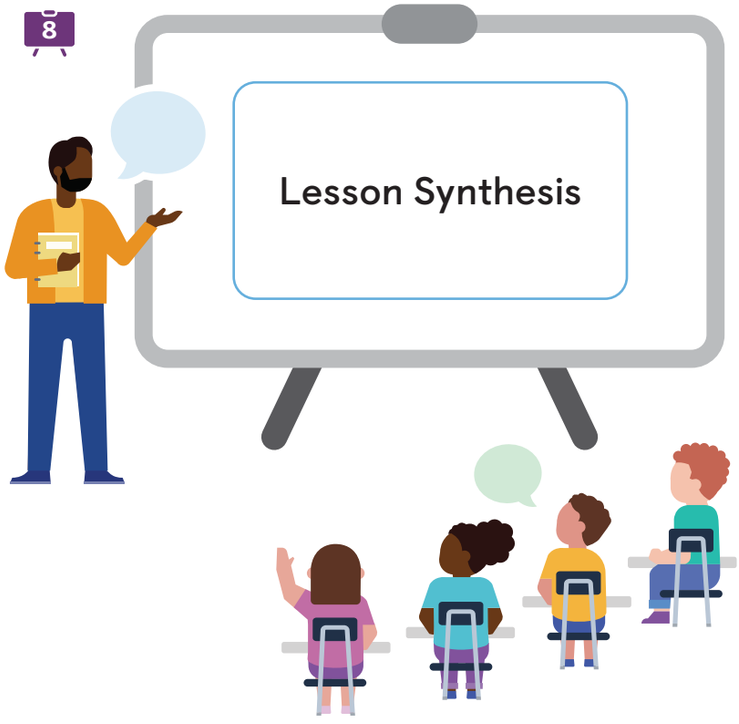
Whole Class | 5 min

Presentation Screen



Synthesis

Lesson Takeaway: The value of numbers up to 120 can be represented as amounts of hundreds, tens, and ones. Numbers can be shown in more than 1 way.



Use the Think-Pair-Share routine. Ask:

- "Do these representations show the same number? How do you know?"

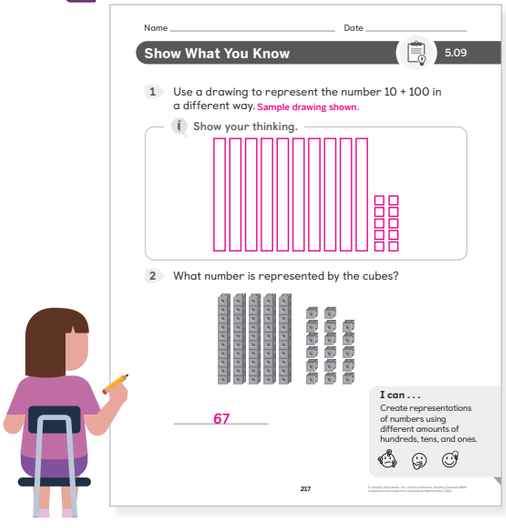
Say, "A number can be represented in more than one way. For example, both representations show the number 102. You can find the number in the representation by adding up the total value of the connected cubes."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.09

1 Use a drawing to represent the number 10 + 100 in a different way. Sample drawing shown.

Show your thinking.

2 What number is represented by the cubes?

67

I can . . .
Create representations of numbers using different amounts of hundreds, tens, and ones.

217

Today's Goals

1. **Goal:** Create equivalent representations of numbers up to 120 by composing and decomposing numbers using different amounts of hundreds, tens, and ones.
   - In Problem 1 in the *Show What You Know*, students created an equivalent representation to compose a three-digit number using amounts of hundreds, tens, and ones.
   - In Problem 2 in the *Show What You Know*, students created an equivalent representation to decompose a two-digit number using amounts of tens and ones.
2. **Language Goal:** Justify whether 2 representations of a number have the same value. **(Listening, Speaking, and Writing)** **ELPS 1.E, 2.E, 2.F, 4.D, 4.F**

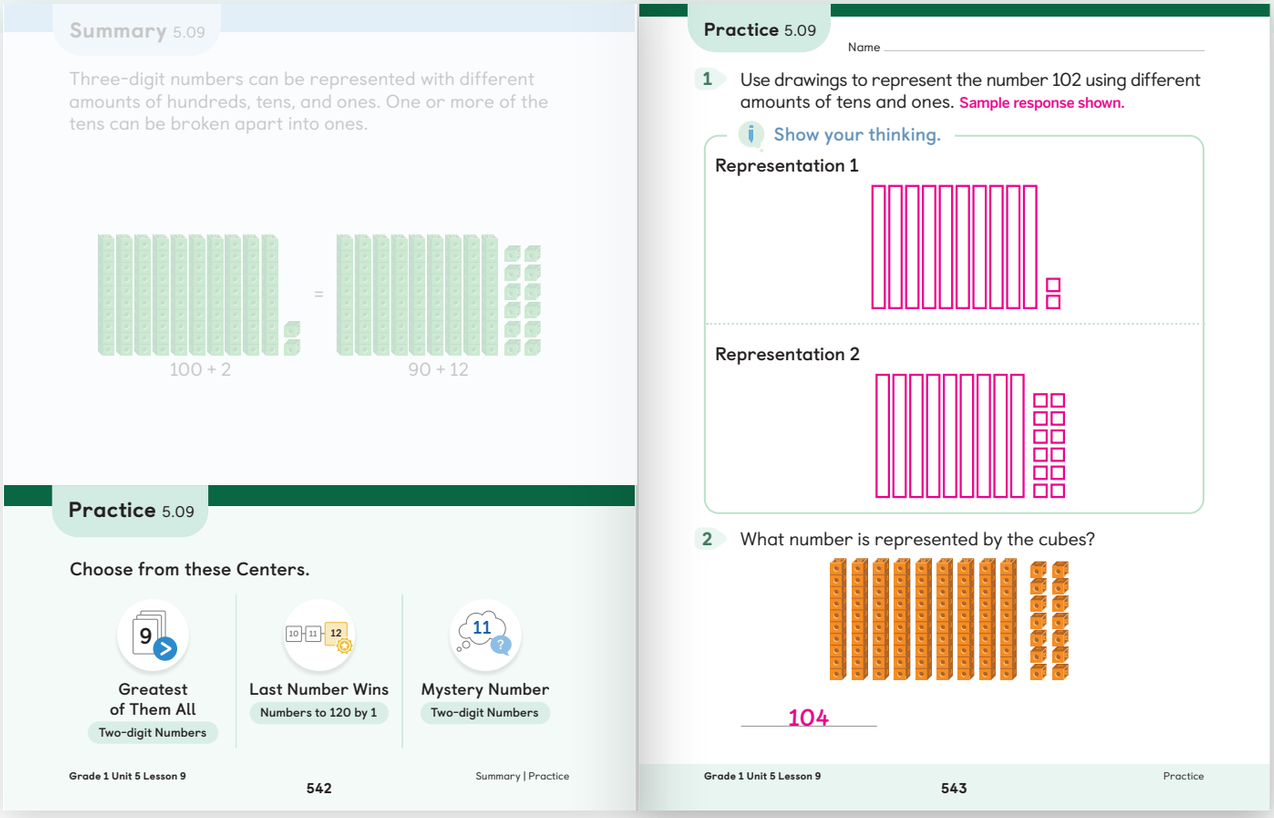
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.09

Three-digit numbers can be represented with different amounts of hundreds, tens, and ones. One or more of the tens can be broken apart into ones.

100 + 2 = 90 + 12

Practice 5.09

Choose from these Centers.

Greatest of Them All — Two-digit Numbers

Last Number Wins — Numbers to 120 by 1

Mystery Number — Two-digit Numbers

Grade 1 Unit 5 Lesson 9 542 Summary | Practice

Practice 5.09

Name

1 Use drawings to represent the number 102 using different amounts of tens and ones. Sample response shown.

Show your thinking.

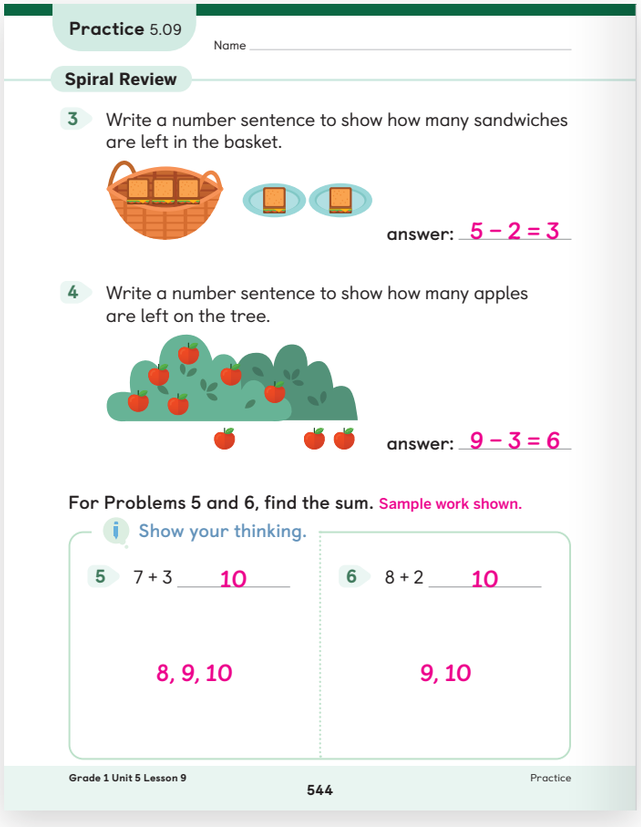
Representation 1

Representation 2

2 What number is represented by the cubes?

104

Grade 1 Unit 5 Lesson 9 543 Practice



Practice 5.09

Name

Spiral Review

3 Write a number sentence to show how many sandwiches are left in the basket.

answer: 5 − 2 = 3

4 Write a number sentence to show how many apples are left on the tree.

answer: 9 − 3 = 6

For Problems 5 and 6, find the sum. Sample work shown.

Show your thinking.

5 7 + 3 10

8, 9, 10

6 8 + 2 10

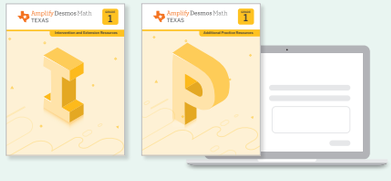
9, 10

Grade 1 Unit 5 Lesson 9 544 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1, 2	1	1.2.B
Spiral Review			
	3, 4	1	K.3.A
Fluency	5, 6	1	1.3.D

Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Presentation Screen



Greatest of Them All

Two-Digit Numbers

Pairs | 15 min | 1.2.E, 1.2.G

Students create the greatest two-digit number possible to apply place value reasoning when comparing numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 3.

Last Number Wins

Numbers to 120 by 1

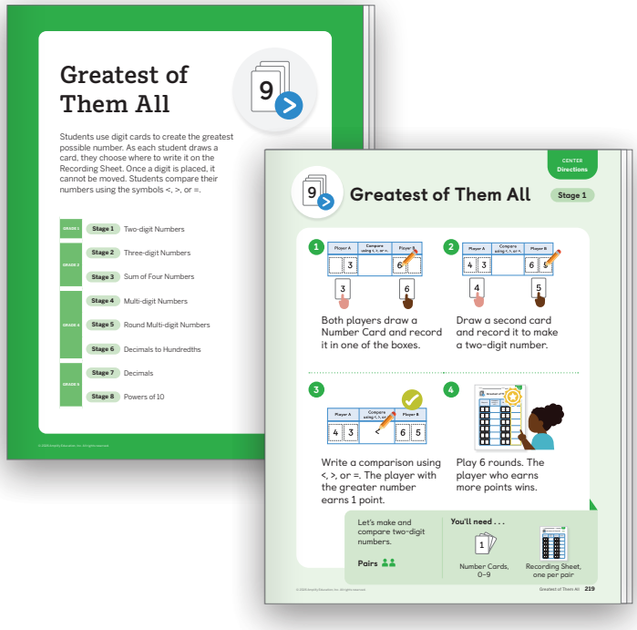
Pairs | 15 min | 1.5.A

Students take turns recording the next 1, 2, or 3 two-digit numbers in a sequence to practice counting by 10 and writing two-digit numbers.

Materials

- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboards (A–D) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 2.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Mystery Number

Two-Digit Numbers

Pairs | 15 min | Building On 1.2.B

Students use place value reasoning to guess two-digit numbers.

Materials

- two-color counters **(Manipulative Kit)**
- Directions, Reference Sheet, Gameboard (A or B) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 3.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 9

Lesson Goal: Create equivalent representations of numbers up to 120 by composing and decomposing numbers using different amounts of hundreds, tens, and ones.

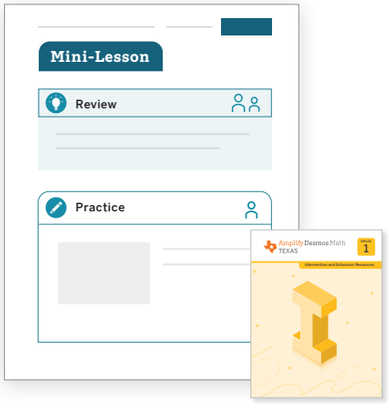
Support

Provide targeted intervention for students by using these resources.

If students create a representation that is equivalent to a different number than the one given:

Respond:

- Assign the *Representing the Same Number in Different Ways* Mini-Lesson. | 15 min
- Review how the hundred unit is composed of tens and ones and how the tens unit is composed of ones.



Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students create a representation of 110:

Respond:

- Invite students to play these **Centers.** | 15 min
  Counting Collections: Up to 99
  Last Number Wins: Numbers to 120 by 1
  Cover Up: Add or Subtract 10
- Have students complete **Lesson 9 Practice.** | 15 min
- **Item Bank**



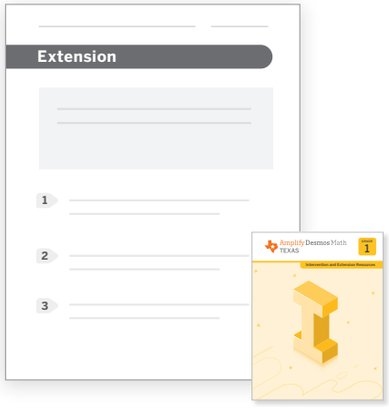
Stretch

Challenge students and extend their learning with these resources.

If students create a representation of 110 using the most amount of hundreds and tens and the least amount of ones:

Respond:

- Invite students to explore the **Sub-Unit 2 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min



Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines



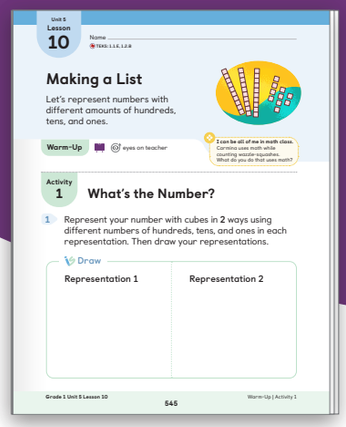


Professional Learning

In the next unit, students compare numbers up to 120 represented as different amounts of hundreds, tens, and ones. How will the work of this sub-unit prepare students for the upcoming work with comparing numbers up to 120?

Unit 5
Lesson
10

Student Edition pages, Manipulatives, and Presentation Screens support learning in this lesson.



Making a List

Interpreting Equivalent Representations Using Objects and Pictures

Let's represent numbers with different amounts of hundreds, tens, and ones.

Key Concepts

Today's Goals

1. **Goal:** Create and interpret equivalent representations of numbers up to 120 that have different amounts of hundreds, tens, and ones.
2. **Language Goal:** Explain how representations with different amounts of hundreds, tens, and ones are equivalent. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

Connections and Coherence

Students create 2 representations of the same number using different amounts of hundreds, tens, and ones and then interpret their classmates' representations to determine the number shown. Students compose and decompose numbers up to 120, encouraging them to think flexibly about the amounts of hundreds, tens, and ones in the total amount. **(TEKS 1.1.E)**

Prior Learning

In Lesson 9, students created equivalent representations of numbers up to 120 by composing and decomposing numbers with different amounts of hundreds, tens, and ones.

Future Learning

In Lesson 11, students will compare and order numbers up to 120 represented as amounts of hundreds, tens, and ones in different ways.

Integrating Rigor in Student Thinking

- Students deepen their **conceptual understanding** of place value by exploring how numbers up to 120 can be represented with different amounts of hundreds, tens, and ones.
- Students **apply** their understanding of the meanings of the digits to represent a number up to 120 with amounts of hundreds, tens, and ones in more than 1 way as they solve problems with real-world contexts.

Vocabulary

Review Vocabulary

a hundred/hundreds

a ten/tens

a one/ones

TEKS

Addressing

1.2.B

Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.

Math Process Standards: 1.1.E, 1.1.F

ELPS: 1.C, 1.E, 2.B, 2.D, 2.E, 2.F, 3.E, 3.F

Building On

K.2.I

Building Math Identity

I can be all of me in math class.
Carmina uses math while counting wazzle-squashes. What do you do that uses math?

Invite students to reflect on this question as they complete this lesson.

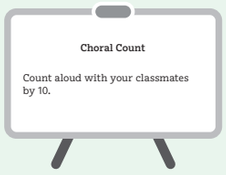
Lesson at a Glance 60 min

TEKS: 1.1.E, 1.1.F, 1.2.B

Warm-Up

Whole Class | 10 min

Students use the **Choral Count** routine, in which they count as a class to 110 by 10 starting at 10, and then by 1. As the count is recorded, students may notice patterns or structures in the count and make predictions about what number will come after 119.
(TEKS 1.1.F)



Activity 1

Pairs | 15 min

Students represent a number, up to 120, in 2 ways using different amounts of hundreds, tens, and ones. They trade with another pair to interpret their representations and discuss the need to look for all possible groups of 10 when identifying and representing a number.

Manipulative Kit: connecting cubes
Materials: sticky notes, Unit Story, *The Day of the Wazzle-Squash*
Additional Prep Prepare: sticky notes with numbers (1 number for each pair, repeat as needed: 37, 50, 56, 63, 101, 107, 112, 119)

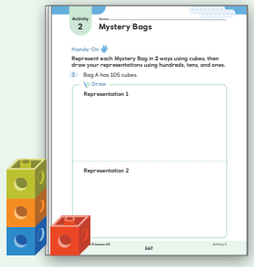


Activity 2

Pairs | 15 min

Students compose and decompose numbers up to 120 in different ways. In the Connect, they discuss strategies for applying what they know about numbers up to 120 represented with different amounts of hundreds, tens, and ones to solve these problems.

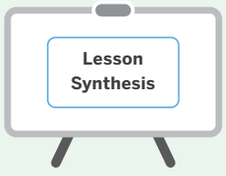
Manipulative Kit: connecting cubes



Synthesis

Whole Class | 5 min

Students review and reflect on representing numbers with different amounts of hundreds, tens, and ones by determining whether a series of representations show a given number.

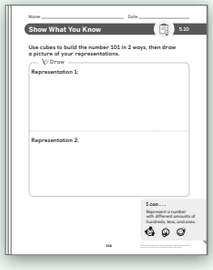


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by using drawings to represent a number 2 ways.

Materials: *Show What You Know* PDF

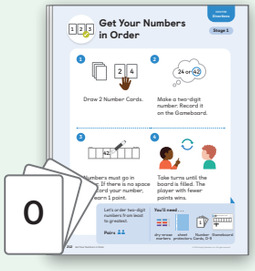


Center

Pairs | 15 min

Students are introduced to the Center, *Get Your Numbers in Order*, in which they take turns making and recording two-digit numbers from least to greatest.

Additional Prep Prepare: place Gameboards in sheet protectors



Math Language Development

Emergent Bilinguals
Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

Whole Class | 10 min

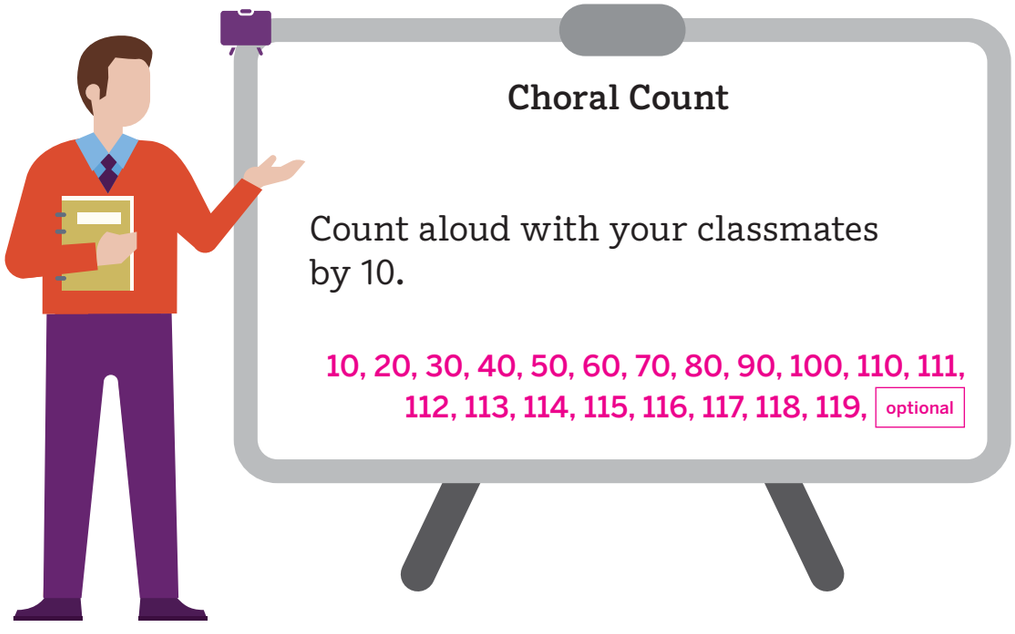
Presentation Screens



Warm-Up Choral Count

Fluency

Purpose: Students count by 10 to 110, then by 1 to prepare for representing numbers to 120 by hundreds, tens, and ones in today's lesson.





1 Launch

Use the Choral Count routine.

Say, "Let's count by 10, starting at 10 and ending at 110. Then we will count by 1."

Display each number as students count.

Ask:

- "What patterns do you see?"
- "Why do you think this pattern is happening here?"

2 Connect

Record students' responses as they share. Consider highlighting different patterns using different colors.

Say, after adding a box at the end of the displayed count, "Make a prediction about the number that will go in the box."

Ask, "How do you know?"

Students might say . . . ELPS 2.E

I notice the ones place is staying 0 until we switch to counting by ones.

Every number has 2 digits until 100, then 3 digits after 100.

No number has a 0 represented in the tens place.

The numbers get bigger when counting by 1 or 10.

Pairs | 15 min

Activity 1 What's the Number?

Purpose: Students apply their understanding of the meaning of the digits in numbers up to 120, using different amounts of hundreds, tens, and ones, and to interpret their classmates' representations with objects and pictures.

Presentation Screens



Materials

- Display and read aloud page 5 of the Unit Story, *The Day of the Wazzle-Squash*.

Manipulative Kit:

- Distribute connecting cubes during the Launch.

Classroom materials:

- Prepare 1 sticky note for each pair by writing a two-digit number (37, 50, 56, 63, 101, 107, 112, 119) on the sticky note before the activity. Repeat the numbers as needed.
- Distribute 1 sticky note to each pair.

1 Launch



Display and read aloud page 5 of the Unit Story.
ELPS 1.E

Say, "Everyone in the town had great ideas of what to do with their wazzle-squashes for the festival. Some people needed a lot of materials from the store to make their wazzle-squash creation."

Distribute 1 of the prepared sticky notes to each pair.

Say, "Each group has a number that represents the number of items on someone's list to get from the store. Do not write your number in your book."

Distribute connecting cube towers of 10 and single cubes.

Read aloud Problem 1. Give pairs 5 minutes to complete Problem 1.

Read aloud Problem 2.

Say, "Place your sticky note on the back of the page in your partner's or your book. Trade books with another pair and complete Problem 2. After you and your partner discuss, look at the sticky note on the back of the page to check your thinking."

2 Monitor



After students have completed **Problem 2**, refer to the Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What is 1 way to represent the hundreds, tens, and ones in this number?"
- Ask, "What is another way that you can show 1 of the tens in this number?"

A **Accessibility: Visual-spatial processing** Guide processing by having students refer to the representations they created in Lesson 9 to guide their thinking and visualization.

3 Connect



Display the representations of 112. Say, "The number 112 is represented in two different ways using different numbers of tens and ones."

Use the Think-Pair-Share routine. Ask, "What is the same in these representations? What is different?"

Say (if not yet mentioned during discussion), "We can save time drawing a tower of 10 by drawing a rectangle the shape of a tower of 10 and writing the number 10 inside to show its value."

EB **Emergent Bilinguals** As students respond, display students' thinking and add annotations, such as arrows and color coding, to show where students see the similarities and differences in the representations. ELPS 3.E, 3.F

Key Takeaway: Say, "To figure out what a two- or three-digit number is represented, start by counting the hundreds, then the tens, and finally the ones. See if any tens can be grouped into hundreds or ones into tens."

Student Edition

Unit 5
Lesson
10

Name _____

TEKS: 1.1.E, 1.2.B

Making a List

Let's represent numbers with different amounts of hundreds, tens, and ones.



Warm-Up eyes on teacher

I can be all of me in math class.
Carmina uses math while counting wazzle-squashes. What do you do that uses math?

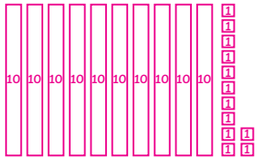
Activity
1

What's the Number?

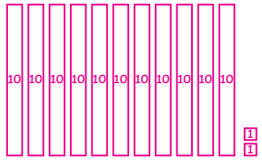
1 Represent your number with cubes in **2** ways using different numbers of hundreds, tens, and ones in each representation. Then draw your representations.
Sample response shown.

Draw

Representation 1



Representation 2



Activity
1

Name _____

What's the Number? (continued)

2 Discuss

What number is represented in Problem 1? How do you know?

These representations show the number _____ because _____.

Oral activity: No writing expected. Sample response shown.

These representations show the number 112 because one representation has 10 tens, which is a hundred, and 12 ones. The other has 11 tens, which is 110, and 2 ones. Both show 112.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Explain that they know the value because they counted by tens and ones.	**10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112**	**Strengthen** Ask, "How could you figure out what number is represented without counting?"
Explain that they know the value because they found the value of each place individually and then combined them.	**One hundred is 100, 12 ones is 12, 100 and 12 is 112. Nine tens is 90, 22 ones is 22, 90 and 22 also equals 112.**	**Strengthen** Ask, "How could you know that both of these representations show the same number without finding the value of each representation?"
Explain that they know the value because they found the total number of hundreds (including a group of 10 tens) and remaining tens and ones in all the representations.	***Both of these representations could have 10 groups of 10, which is 100, and 12 more ones, so they both show the number 112.***	**Stretch** Ask, "Are there any other ways to represent this number? How could you know if all the ways are included?"

Pairs | 15 min

Activity 2 Mystery Bags

Purpose: Students apply their understanding of how numbers can be represented using objects and pictures, as different amounts of hundreds, tens, and ones as they compose and decompose numbers up to 120.

Presentation Screens



Materials

Manipulative Kit:

- Distribute connecting cubes during the Launch.

Short on time? Consider omitting Problem 3.

1 Launch



Say, "Now, you will use what you know about representing numbers as different amounts of hundreds, tens, and ones to solve problems about connecting cubes in mystery bags."

Read aloud the directions and Problems 3 and 4.

Say, "You will use cubes to solve and then draw your representation."

Distribute connecting cube towers of 10 and single cubes.

A **Accessibility: Conceptual processing** Guide processing by providing questions students can ask themselves, such as, "What tools can I use to represent the problem? How can I show the number I know? How can I figure out the unknown number?"

2 Monitor



After students have completed **Problem 4**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What are you trying to find?"
- Ask, "What part could you represent first to help you solve?"

3 Connect



MLR This Connect is structured using the *MLR7: Compare and Connect* routine.
ELPS 1.E, 2.B, 2.D, 2.E

Invite students to share their responses to Problem 4. Select and sequence their responses using Rows 2 and 3 in the *Differentiation* table.

Ask:

- "How are these strategies alike?"
- "How are these strategies different?"
- "Where do you see each of the numbers from the story in each strategy?"

EB **Emergent Bilinguals** Provide wait time for students to formulate a response. Allow students to rehearse with a partner before sharing with the class.
ELPS 1.E, 2.F

Use the Think-Pair-Share routine. Ask, "Which representations of tens and ones did you find helpful for solving these problems? Why?"

Key Takeaway: Say, "You can think about two- and three-digit numbers as different numbers of hundreds, tens, and ones, and use objects and pictures to represent and solve problems."

Activity 2

Name

Mystery Bags

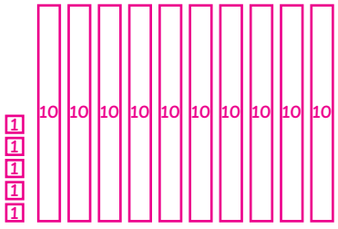
Hands-On

Represent each Mystery Bag in 2 ways using cubes, then draw your representations using hundreds, tens, and ones.

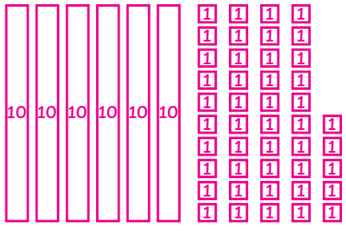
3 Bag A has 105 cubes. Sample response shown.

Draw

Representation 1



Representation 2



Activity 2

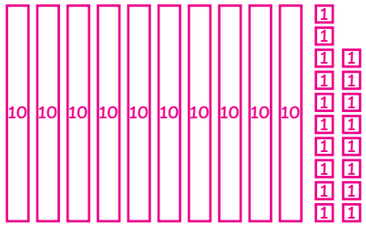
Name

Mystery Bags (continued)

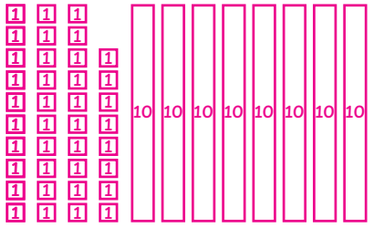
4 Bag B has 118 cubes. Sample response shown.

Draw

Representation 1

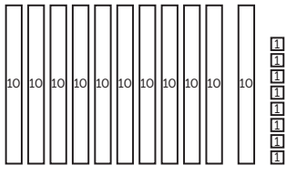
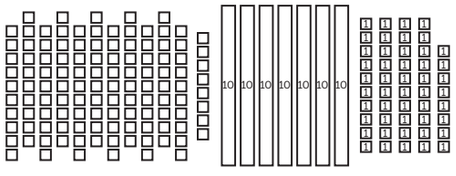
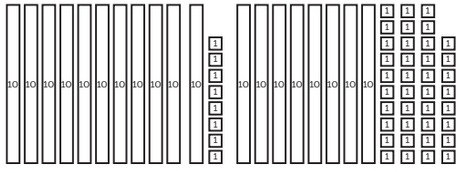


Representation 2



Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Use tens and ones to represent 118 in only 1 way, matching the digits in the numeral.		**Support** Ask, "How could you make 118 a different way?"
Represent 118 using 2 different combinations of tens and ones.		**Stretch** Ask, "Is there a way to represent 118 using a different amount of tens, or a hundred?"
Represent 118 using 2 different combinations of a hundred, tens, and ones and recognize that a hundred can be made from the 10 tens.		**Stretch** Say, "Write your own Mystery Bag problem. Then trade and solve another pair's problem."

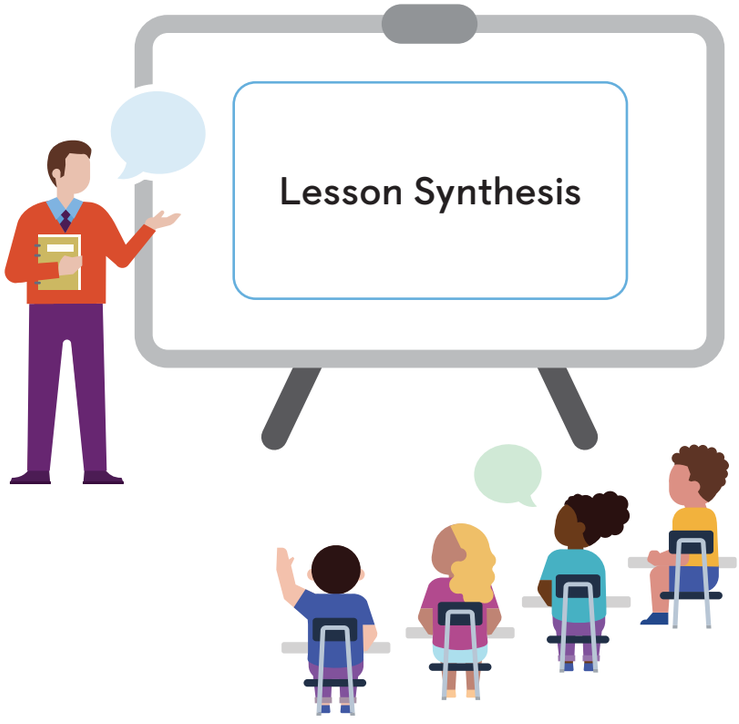
Whole Class | 5 min

Presentation Screen



Synthesis

Lesson Takeaway: Two- and three-digit numbers can be put together and taken apart into amounts of hundreds, tens, and ones in different ways. It can be helpful to use objects and drawings to show the different amounts of hundreds, tens, and ones when solving problems.



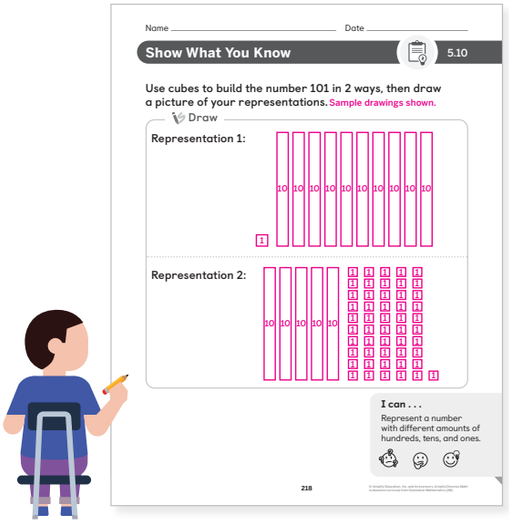
Use the Think-Pair-Share routine. Ask (for each representation), "Is the value of this representation 115? How do you know?" Circle the correct response for each statement.

Say, "Mathematicians think flexibly about numbers. It can be helpful to create and find the values of representations of two- and three-digit numbers with different amounts of hundreds, tens, and ones."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min


Name _____ Date _____

Show What You Know 5.10

Use cubes to build the number 101 in 2 ways, then draw a picture of your representations. Sample drawings shown.

Draw

Representation 1:

Representation 2:

I can . . .
Represent a number with different amounts of hundreds, tens, and ones.

218

Lesson Goals

1. **Goal:** Create and interpret equivalent representations of numbers up to 120 that have different amounts of hundreds, tens, and ones.
   - In the *Show What You Know*, students created 2 equivalent representations of a number.
2. **Language Goal:** Explain how representations with different amounts of hundreds, tens, and ones are equivalent. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

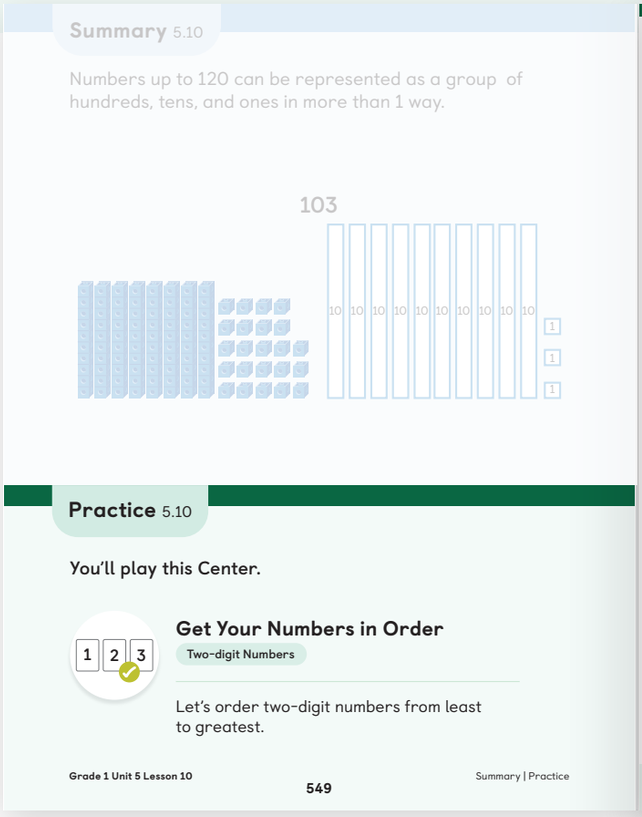
Differentiation See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.10

Numbers up to 120 can be represented as a group of hundreds, tens, and ones in more than 1 way.

103

Practice 5.10

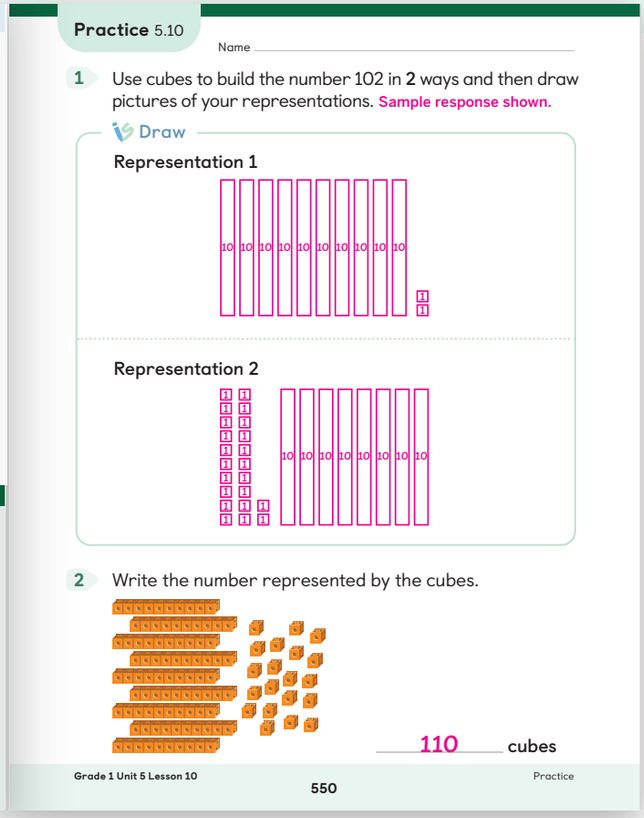
You'll play this Center.

Get Your Numbers in Order

Two-digit Numbers

Let's order two-digit numbers from least to greatest.

Grade 1 Unit 5 Lesson 10 549 Summary | Practice



Practice 5.10

Name _____

1 Use cubes to build the number 102 in **2** ways and then draw pictures of your representations. Sample response shown.

Draw

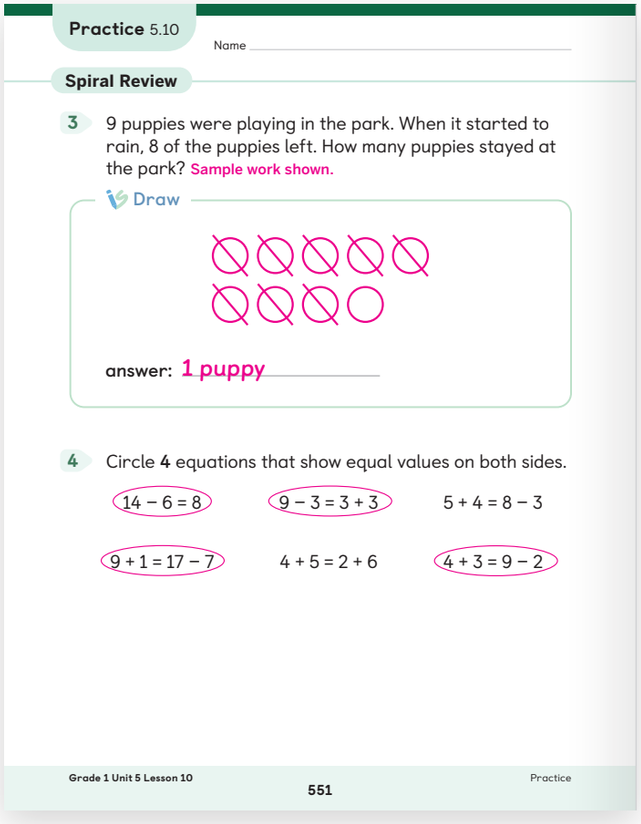
Representation 1

Representation 2

2 Write the number represented by the cubes.

110 cubes

Grade 1 Unit 5 Lesson 10 550 Practice



Practice 5.10

Name _____

Spiral Review

3 9 puppies were playing in the park. When it started to rain, 8 of the puppies left. How many puppies stayed at the park? Sample work shown.

Draw

answer: 1 puppy

4 Circle **4** equations that show equal values on both sides.

14 − 6 = 8 | 9 − 3 = 3 + 3 | 5 + 4 = 8 − 3

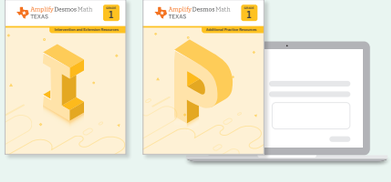
9 + 1 = 17 − 7 | 4 + 5 = 2 + 6 | 4 + 3 = 9 − 2

Grade 1 Unit 5 Lesson 10 551 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1, 2	1	1.2.B
Spiral Review			
	3	2	K.3.B
Fluency	**4**	1	1.5.E

Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Pairs | 15 min

Introducing the Center
Get Your Numbers in Order, Two-Digit Numbers

Purpose: Students take turns making, recording, and ordering two-digit numbers from least to greatest to apply place value reasoning to compare numbers.

Presentation Screen



Materials

Manipulative Kit:

- Distribute one set of number cards (0–9) to each pair.

Classroom materials:

- Distribute two different-colored dry-erase markers to each pair.

Centers Resources:

- Place the Gameboards in sheet protectors **(Classroom materials)** before the activity.
- Display the Directions and Gameboard during the Launch.
- Distribute one Gameboard to each pair.

1 Launch



Display the Center materials, Directions, and Gameboard.

Demonstrate how to play *Get Your Numbers in Order, Two-Digit Numbers*. Monitor to ensure students are able to follow directions with accuracy. **ELPS 1.C**

- **Say**, "You will play *Get Your Numbers in Order* today."
- **Say**, "First, I will flip over 2 cards and use them to make a two-digit number." Flip over and display Number cards 2 and 4.
- **Ask**, "What two-digit numbers can I make?"
- **Say**, "I can choose to write 24 or 42 in any open box on the Gameboard, as long as it is greater than any numbers before it and less than any numbers after it. I will record 24 in the first box because I know there are a lot of two-digit numbers that are greater than 24."
- **Use the Think-Pair-Share routine.** Ask, "Imagine my partner draws a 3 and a 7 next. What number could be made and where could it be recorded?"
- **Say**, "You and your partner will take turns making and recording numbers from least to greatest. If you make a number that cannot be placed in order on the Gameboard, you earn 1 point. The person with fewer points when all the boxes are filled is the winner."

2 Monitor



Observe how students use place value reasoning to decide what numbers to create and where to place them in the sequence.

3 Connect



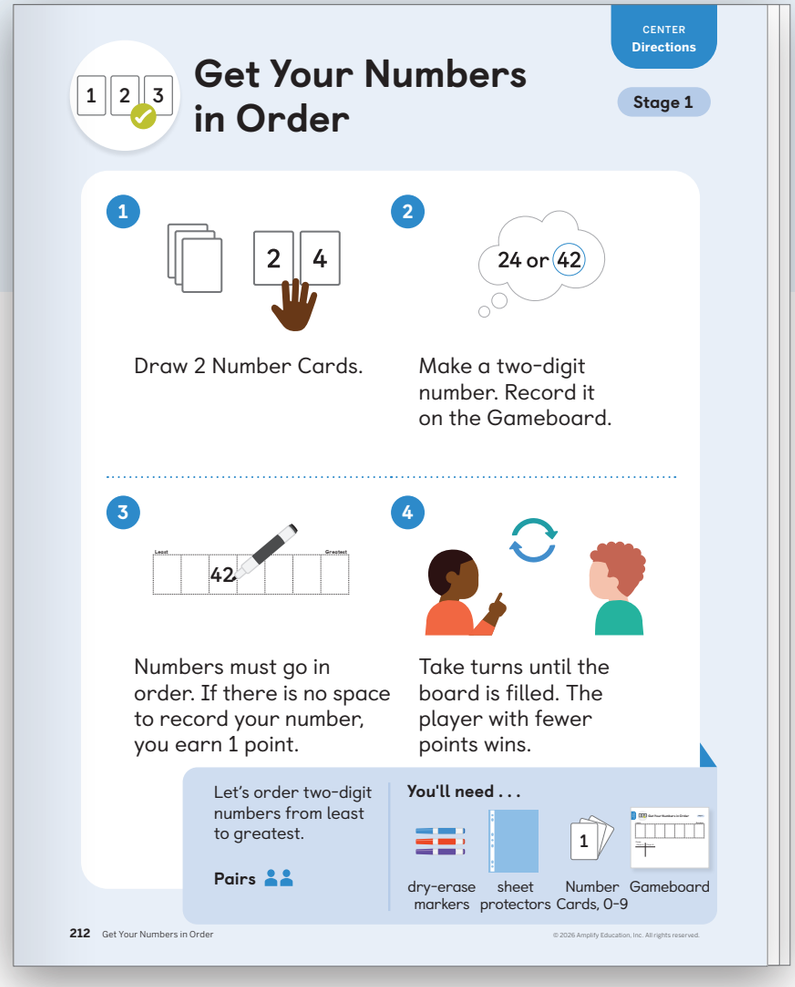
Display the Gameboard with numbers filled in as shown in Row 1 in the *Differentiation* table, and display Number cards 6 and 3.

Use the Think-Pair-Share routine. Ask:

- "What two-digit numbers can be made with these cards?"
- "Which number would you make? Why?"
- "How do you know where to record 36 on the Gameboard?"

Ask, "What do you want to keep in mind the next time you play this game?"

Key Takeaway: Say, "When putting two-digit numbers in order, you can think about the values of the digits in each number."



CENTER Directions

Stage 1

Get Your Numbers in Order

1. Draw 2 Number Cards.

2. Make a two-digit number. Record it on the Gameboard.

3. Numbers must go in order. If there is no space to record your number, you earn 1 point.

4. Take turns until the board is filled. The player with fewer points wins.

Let's order two-digit numbers from least to greatest.

Pairs

You'll need . . .

dry-erase markers, sheet protectors, Number Cards, 0–9, Gameboard

212 Get Your Numbers in Order

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Presentation Screen

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Make and consider only 1 two-digit number to place on the board.	Least … Greatest: 21 ☐ 56 67 ☐ ☐ 81 6 3 *63 is greater than 56 and less than 67, so it has no place on the Gameboard.*	**Support** Ask, "What is another number you can make using your cards? Is there a place for that number on the board?"
Consider both possible numbers and use counting to determine a place in the order.	*56, 57, 58, . . . , 63, 64, 65, 66, 67 63 does not work because it would be between 56 and 67. 21, 22, 23, . . . , 36, 37, 38, . . . , 56 36 can go between 21 and 56 because it comes between 21 and 56 when I count.*	**Strengthen** Ask, "How could you use what you know about the values of the digits to compare the numbers?"
Consider both possible numbers and use place value reasoning to determine a place in the order.	*63 is greater than 56 and less than 67, so it does not fit. 36 has 3 tens, so it is greater than 21. There are 5 tens in 56, so 36 is less. 36 is greater than 21 and less than 56.*	**Stretch** Ask, "Are there any number cards you hope to draw on your next turn? Are there any number cards you do not want on your next turn? Why or why not?"

Differentiation Use after Lesson 10

Lesson Goal: Create and interpret equivalent representations of numbers up to 120 that have different amounts of hundreds, tens, and ones.

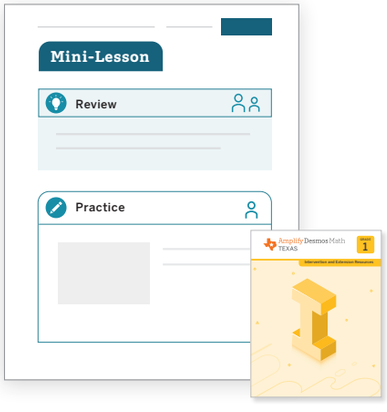
Support

Provide targeted intervention for students by using these resources.

If students create and interpret a representation of a number up to 120 with amounts of hundreds, tens, and ones that match the digits in the written numeral:

Respond:

- Assign the *Representing the Same Two-Digit Number in Different Ways* Mini-Lesson. | 15 min
- Review Row 1 of the Activity 2 *Differentiation: Teacher Moves* table.



Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students create and interpret more than 1 representation of a number up to 120 with different amounts of hundreds, tens, and ones:

Respond:

- Invite students to play these **Centers.** | 15 min
  Counting Collections: Up to 99
  Last Number Wins: Numbers to 120 by 1
  Cover Up: Add or Subtract 10
- Have students complete **Lesson 10 Practice.** | 15 min
- **Item Bank**



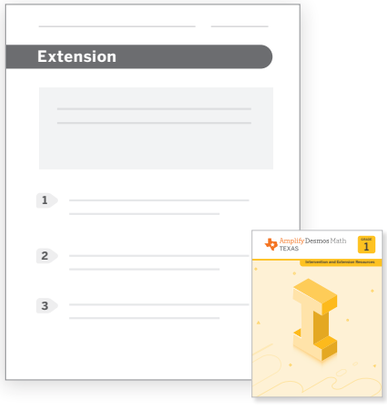
Stretch

Challenge students and extend their learning with these resources.

If students create and interpret all possible representations of a number up to 120 with different amounts of hundreds, tens, and ones:

Respond:

- Invite students to explore the **Sub-Unit 2 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to a **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min

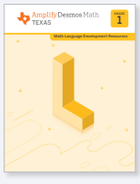


Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines





Professional Learning

What question do you wish you had asked today? When and why could you have asked it?

Notes:

Assess and Respond

Support, strengthen, and stretch learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Quiz: Sub-Unit 2

Independent | 20 min

Facilitation: Assign this Sub-Unit Quiz at the end of Sub-Unit 2 to evaluate students' proficiency with the key concepts and skills addressed in this sub-unit. Read aloud the problems to students as needed.

Item Analysis

Problem(s)	Concept or skill	DOK	TEKS
1	Subtracting multiples of 10	1	1.5.C 1.1.B
2	Using objects, pictures, and expanded and standard forms to represent numbers up to 120	2	1.2.C 1.1.D
3	Using objects and pictorial models to compose and decompose numbers	2	1.2.B 1.1.E

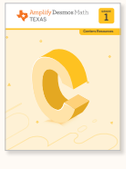
Assessment Resources



- Student Print Assessments
- Answer Keys and Rubrics

Differentiation Resources





Intervention and Extension Resources include:

- Mini-Lessons
- Extensions

Centers Resources includes:

- Centers

Practice

During Sub-Unit 3, if students need further review or practice with concepts or skills, consider the following resources:

- Lesson Practice (Print and Digital)
- Item Bank (Digital)

PDF *Assessment Resource PDF*

Name _____ Date _____

Quiz: Sub-Unit 2 Unit 1.5

1 What is 10 less than 120? Sample work shown.

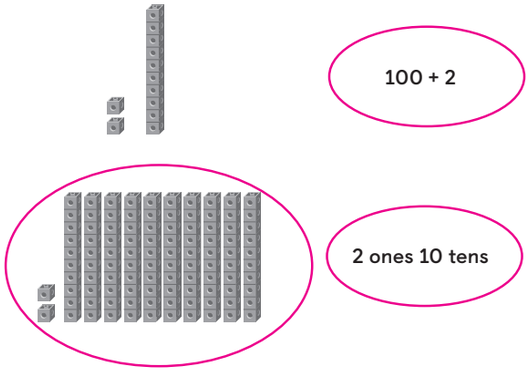
Show your thinking.

120 − 10 = 110

10 less is 2 tens − 1 ten = 1 ten

answer: 110

2 Circle **THREE** representations that show 102.



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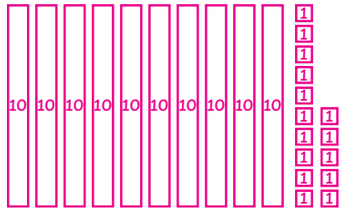
Name _____ Date _____

Quiz: Sub-Unit 2 (continued) Unit 1.5

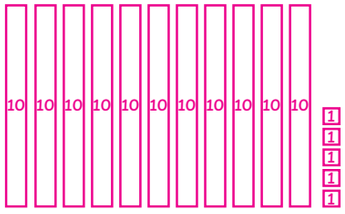
3 Use drawings to represent the number 115 using different amounts of tens and ones. Sample drawings shown.

Draw

Representation 1



Representation 2



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D Differentiation (Quiz: Sub-Unit 2)

To **Strengthen** and **Stretch** students' learning, refer to the differentiation resources suggested throughout this Sub-Unit.

Sub-Unit Goal	Problem(s)	Respond to Student Thinking
Sub-Unit 2: Use objects and pictorial models to compose and decompose numbers up to 120 as so many hundreds, so many tens, and so many ones.	1	**Support** • **Mini-Lesson:** *Finding 10 More and 10 Less* (ML 5.08) • **Teacher Move:** Invite students to review the problem and then provide additional opportunities for students to use concrete and pictorial models to find 10 more and 10 less. • **Teacher Move:** Consider revisiting Lesson 5, Activity 1.
	2	**Support** • **Mini-Lesson:** *Representing the Same Number in Different Ways* (ML 5.09) • **Teacher Move:** Invite students to review the problem and then identify the different representations with language like *expanded form, standard form* or *drawing*. • **Teacher Move:** Consider revisiting Lesson 7, Activity 1.
	3	**Support** • **Mini-Lesson:** *Drawing the Same Number in Different Ways* (ML 5.10) • **Teacher Move:** Invite students to review the problem and then provide strategies to help draw representations quickly and neatly so the image is clear and accurate. • **Teacher Move:** Consider revisiting Lesson 9, Activity 1.

Notes:

Sub-Unit 3

Comparing and Ordering Numbers to 120



Sub-Unit 3 Goals

- Generate a number that is greater than or less than a given number up to 120.
- Compare numbers up to 120 using an understanding of place value and comparative language.
- Represent comparisons up to 100 with the symbol >, <, or =.
- Order numbers up to 120 using an understanding of place value and open number lines.

Progression of TEKS in Sub-Unit 3

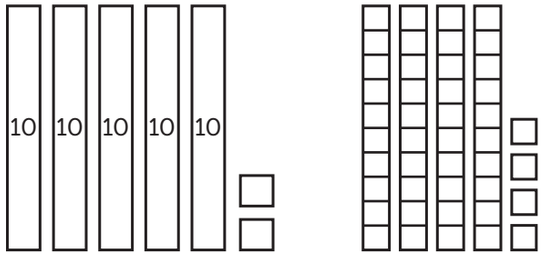
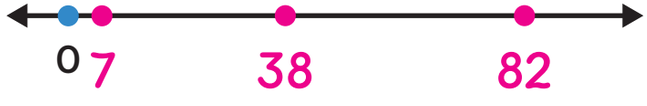
- **Lesson 11:** Students compare pictorial representations of numbers up to 120, using comparative language and the symbol >, <, or =.
- **Lesson 12:** Students apply their understanding of using place value to generate numbers that are greater than and less than a given number up to 120.
- **Lesson 13:** Students use open number lines to order numbers up to 120.

Sub-Unit 3 Progression	Lesson 11	Lesson 12	Lesson 13
Number and Operations			
TEKS 1.2.B	●	○	○
TEKS 1.2.D	○	●	○
TEKS 1.2.E	●	○	○
TEKS 1.2.F	○	○	●
TEKS 1.2.G	●	○	○
TEKS 1.3.D	●	○	○

Math That Matters Most

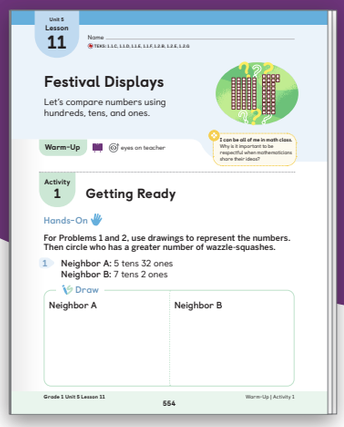
Sub-Unit 3: Compare and order numbers up to 120 using an understanding of place value, comparative language, symbols, and open number lines.

Progression of Strategies, Skills, or Language

Progression	For example . . .
Compare 2 numbers up to 120 by determining which number has a greater value of tens and ones.	5 tens 32 ones is greater than 7 tens 2 ones.
Compare 2 numbers up to 120 using the symbols <, >, or = to describe a true comparison statement.	52 > 44 
Generate numbers that are greater than or less than a given number.	100 greater than: 102 less than: 90 102 is greater than 100. They have the same number of hundreds and tens, but 102 has more ones. 90 is less than 100 because 100 has 1 hundred, and 90 has no hundreds.
Use an understanding of place value to order numbers up to 120 on an open number line.	38 7 82 

Unit 5
Lesson
11

Student Edition pages and Presentation Screens support learning in this lesson.



Festival Displays

Comparing Numbers Shown in Different Ways

Let's compare numbers using hundreds, tens, and ones.

Key Concepts

Today's Goal

1. **Goal:** Compare numbers up to 120 represented as different amounts of hundreds, tens, and ones.
2. **Language Goal:** Justify whether a comparison statement, derived from a representation of amounts of hundreds, tens, and ones, is true or false. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

Connections and Coherence

Students compare numbers up to 120 represented as amounts of hundreds, tens, and ones. They apply what they know about place value and the structure of two- and three-digit numbers as they compose and decompose to make sense of the representations. Students notice and make use of structure and use repeated reasoning as they interpret the different representations and record the comparisons using comparative language. **(TEKS 1.1.E, 1.1.F)**

Prior Learning

In Lessons 9 and 10, students created and interpreted representations that show numbers with different amounts of hundreds, tens, and ones. In Unit 4, students compared one- and two-digit numbers using place value reasoning and recorded the comparisons using the >, <, and = symbols.

Future Learning

In Grade 2, students will compare numbers up to 1,200 using place-value based strategies.

Integrating Rigor in Student Thinking

- Students deepen their **conceptual understanding** of place-value based strategies for comparing 2 numbers up to 120.
- Students **apply** their understanding of the meanings of the digits to compare numbers represented with different amounts of hundreds, tens, and ones.

Vocabulary

Review Vocabulary

equal to

greater than

less than

TEKS

Addressing

1.2.E

Use place value to compare whole numbers up to 120 using comparative language.

Also Addressing: **1.2.B, 1.2.G, 1.3.D**

Math Process Standards: 1.1.C, 1.1.D, 1.1.E, 1.1.F

ELPS: 1.E, 2.B, 2.C, 2.D, 2.E, 2.F

Building Toward

2.4.A

Building Math Identity

I can be all of me in math class.
Why is it important to be respectful when mathematicians share their ideas?

Invite students to reflect on this question as they complete this lesson.

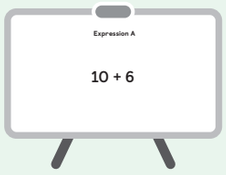
Lesson at a Glance 60 min

TEKS: 1.1.C, 1.1.D, 1.1.E, 1.1.F, 1.2.B, 1.2.E, 1.2.G, 1.3.D

Warm-Up

Whole Class | 10 min

Students use the **Number Talk** routine, in which they look for structure and use repeated reasoning based on their own previous strategies or the strategies of others as they study a sequence of addition expressions. **(TEKS 1.1.C, 1.1.D)**



Activity 1

Pairs | 15 min

Students interpret and compare representations of numbers up to 120 represented with different amounts of hundreds, tens, and ones. They discuss 2 comparison strategies — finding and comparing the total value of the numbers and finding and comparing the amounts in each place value.

Manipulative Kit: connecting cubes (optional)

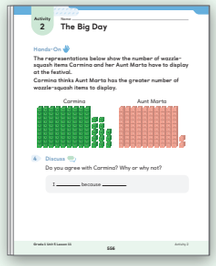


Activity 2

Pairs | 15 min

Students interpret and compare numbers represented in different ways to practice comparison strategies and to write and analyze comparison statements that show the relationship between 2 numbers.

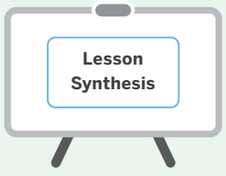
Manipulative Kit: connecting cubes (optional)



Synthesis

Whole Class | 5 min

Students review and reflect on different strategies that can be used to compare numbers up to 120.

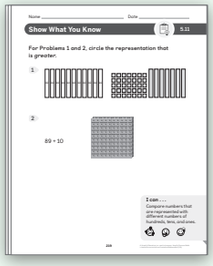


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by comparing representations with different amounts of hundreds, tens, and ones.

Materials: *Show What You Know* PDF

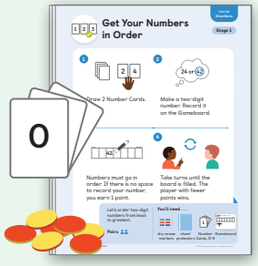


Center Choice Time

Pairs | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Get Your Numbers in Order
- Greatest of Them All
- Mystery Number



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 2, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

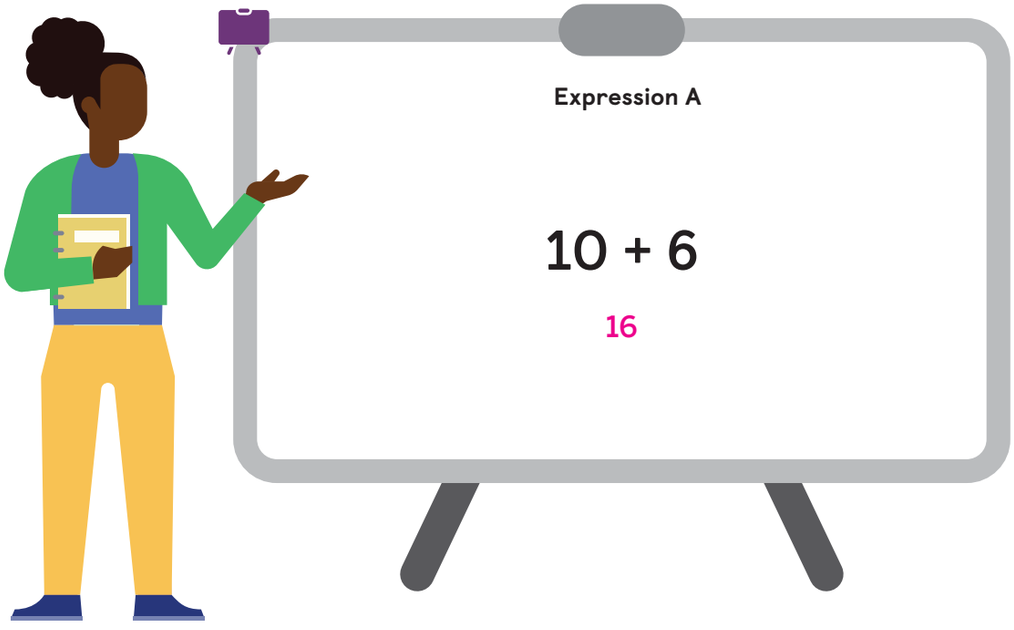
Whole Class | 10 min

Presentation Screens



Warm-Up Number Talk

Purpose: Students find sums of addition expressions within 20, in which 1 addend is 10 or near 10, to practice using known sums to figure out unknown sums.



Expression B

9 + 6

15

Expression C

10 + 7

17

Expression D

8 + 7

15

Why these problems? These expressions lend themselves to using compensation.

1 Launch

Use the Number Talk routine.

Display 1 expression at a time.

Say, "Take your time to find the value mentally. Give me a signal when you have an answer and can explain how you found it."



2 Connect

Record sums and 2 or 3 strategies as students share, honoring all strategies and keeping expressions and work displayed.

Repeat with each expression, spending the most time discussing Expressions B and D.

Ask, (if not yet mentioned during discussion), "How could you use the sum of Expression B to find the sum of Expression D?"

Students might say . . . ELPS 2.C, 2.D, 2.E

A: *I know 10 and 6 ones is 16.*

B: *10 and 6 is 16. 9 is 1 less than 10, so 9 and 6 is 15.*

C: *A ten and 7 ones is 17.*

D: *9 and 6 is 15. I know 8 and 7 is also 15 because 1 addend went up by 1 and the other addend went down by 1.*

Pairs | 15 min

Activity 1 Getting Ready

Purpose: Students apply place value reasoning to interpret and compare two-digit numbers represented as words or expressions.

Presentation Screens



Materials

Manipulative Kit:

- Provide students with access to connecting cubes (optional).

Short on time? Consider omitting Problem 2.

1 Launch



Say, "The town was getting ready for the festival and needed to know how many wazzle-squash creations people were going to bring. You will help the neighbors count and decide who needs more space to display all of their creations."

Read aloud Problems 1 and 2.

Provide access to connecting cube towers of 10 and single cubes.

Read aloud Problem 3.

A **Accessibility: Executive functioning** Invite students to make a plan for completing Problems 1 and 2 by first determining how they will show their thinking and then gathering the tools they need to represent their work. Circulate and clarify task directions as needed.

2 Monitor



After students have completed **Problem 1**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "In your own words, what do you need to do?"
- Ask, "How could you use tools or a drawing to help you think about the number shown in each representation?"

3 Connect



MLR This Connect is structured using the *MLR7: Compare and Connect* routine. ELPS 1.E, 2.B, 2.D, 2.E

Invite students to share their responses to Problem 2.

Use the Think-Pair-Share routine. Ask:

- "What is the same about these comparing strategies?"
- "What is different about these comparing strategies?"

EB **Emergent Bilinguals:** If possible, pair students with different levels of English language proficiency together as they complete this activity. This will provide a structured opportunity for Multilingual Learners to interact with and receive feedback from their peers with varied language backgrounds. ELPS 1.E, 2.C, 2.D

Key Takeaway: Say, "When comparing three-digit numbers, it is helpful to find the total number of hundreds, the total number of tens, and the total number of ones in each number."

Unit 5 Lesson 11

Name

TEKS: 1.1.C, 1.1.D, 1.1.E, 1.1.F, 1.2.B, 1.2.E, 1.2.G

Festival Displays

Let's compare numbers using hundreds, tens, and ones.



Warm-Up eyes on teacher

I can be all of me in math class. Why is it important to be respectful when mathematicians share their ideas?

Activity 1 Getting Ready

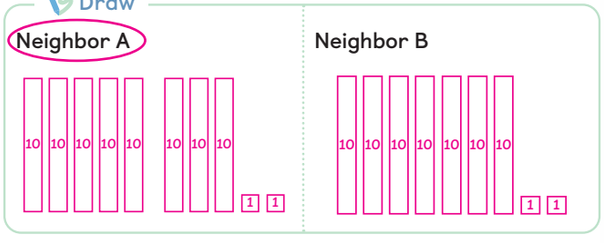
Hands-On

For Problems 1 and 2, use drawings to represent the numbers. Then circle who has a greater number of wazzle-squashes.

1 **Neighbor A:** 5 tens 32 ones
Neighbor B: 7 tens 2 ones

Sample drawings shown.

Draw



Activity 1

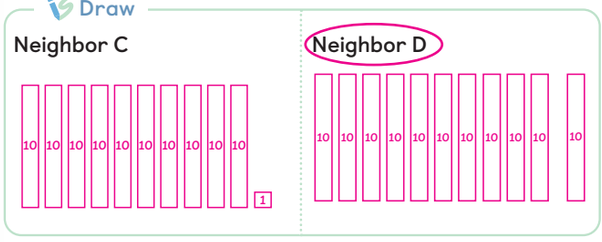
Name

Getting Ready (continued)

2 **Neighbor C:** 100 + 1
Neighbor D: 100 + 10

Sample drawings shown.

Draw



3 Discuss

How did you decide which number was greater in Problem 2?

I decided which number was greater by _____.

Oral activity: No writing expected. Sample response shown.

I decided which number was greater by first looking at the hundreds. They both have 1 hundred. Then, I looked at the tens and saw Neighbor D has 1 ten and Neighbor C only has a one. So Neighbor D has a greater number.

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Compare the stated amounts of tens.	**7 tens is more than 5 tens, so Neighbor B has more.**	**Support** Ask, "You compared the number of tens stated in the problem. What do you notice about the ones?"
Find and compare the total value of each representation.	**50 + 32 = 82 and 70 + 2 = 72** **82 is more than 72, so Neighbor A has more.**	**Strengthen** Ask, "You found the total number each person has. How could you figure out who had more without finding the total number?"
Find and compare the total number of tens.	**8 tens is more than 7 tens, so Neighbor A has more.**	**Stretch** Ask, "How many more wazzle-squashes does Neighbor A have than Neighbor B?"

Pairs | 15 min

Activity 2 The Big Day

Purpose: Students interpret a variety of base-ten representations of numbers up to 120 to practice making and justifying true comparison statements.

Presentation Screens



Materials

Manipulative Kit:

- Provide students with access to connecting cubes (optional).

1 Launch



Say, "It was the big day — festival day! As Carmina was looking around, she noticed people arranged their wazzle-squashes in different ways. You will help Carmina see how many wazzle-squashes her neighbors ended up bringing, and who brought more."

Read aloud the directions for Problems 4.

Provide access to connecting cube towers of 10 and single cubes.

Read aloud the directions for Problems 5 and 6.

A **Accessibility: Memory and attention** Vary the task demands by having students focus on completing Problem 3 or Problem 4, and complete the additional problem when they have more processing time.

2 Monitor



After students have completed **Problem 4**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What do each of these symbols mean?"
- Ask, "How can you decide which number is greater than or less than the other number?"

3 Connect



Invite students to share their responses to Problem 6.

Say, "Carmina's Aunt Marta said Neighbor G had less wazzle-squashes because there are less ones."

Use the Think-Pair-Share routine. Ask, "How could Carmina respond to Aunt Marta?"

MLR **MLR8: Discussion Supports – Active Listening** ELPS 1.E, 2.E, 2.F

Invite students to begin partner interactions by restating their partner's ideas, in their own words, before adding their own ideas to the discussion.

Key Takeaway: Say, "When comparing three-digit numbers, it is helpful to look at the digits in each number and compare the number of hundreds, tens, and ones."

Activity 2

Name _____

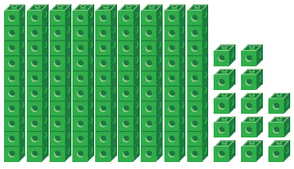
The Big Day

Hands-On

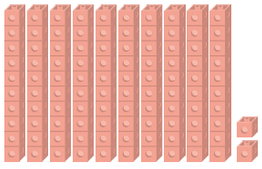
The representations below show the number of wazzle-squash items Carmina and her Aunt Marta have to display at the festival.

Carmina thinks Aunt Marta has the greater number of wazzle-squash items to display.

Carmina



Aunt Marta



4 Discuss

Do you agree with Carmina? Why or why not?

I _____ because _____.

Oral activity: No writing expected. Sample response shown.

I disagree because Carmina has 13 ones, which can make another ten. Carmina has 103 wazzle-squash items and her aunt has 102.

Activity 2

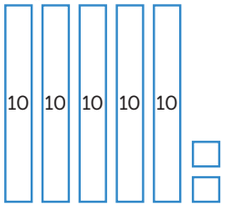
Name _____

The Big Day (continued)

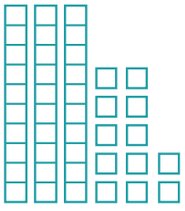
Compare the wazzle-squashes shown in each representation.

5 Record a true comparison statement using the >, <, or = symbol.

Neighbor E



Neighbor F



answer: 52 > 42

6 Discuss Oral activity: No writing expected.

Explain to your partner who has more wazzle-squashes. How do you know?

_____ has more wazzle-squashes.
I know because _____.

Neighbor G	Neighbor H
115	100

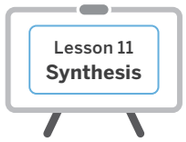
Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Agree with Carmina because Aunt Marta has more tens.	Carmina is correct because Aunt Marta has 10 tens and she only has 9 tens.	**Support** Ask, "What can you say about the ones?"
Disagree with Carmina because they counted by ones.	I disagree because I counted Carmina's cubes and she has 103, and I counted Aunt Marta's cubes and she has 102. 102 is less than 103.	**Support** Ask, "Is there something else you could count by, other than ones?"
Disagree with Carmina by comparing the number of hundreds, tens, and ones represented in order to explain who has the greater amount.	I disagree because Carmina has 13 ones, which can make another ten. So they both have 10 tens, which is a hundred. Carmina has 3 ones left and Aunt Marta has 2. 103 is greater than 102.	**Strengthen** Ask, "What other comparison statement could you make to show the relationship between the values?"

Whole Class | 5 min

Presentation Screen



Synthesis

Lesson Takeaway: Strategies based on counting and place value can be used to compare two numbers.



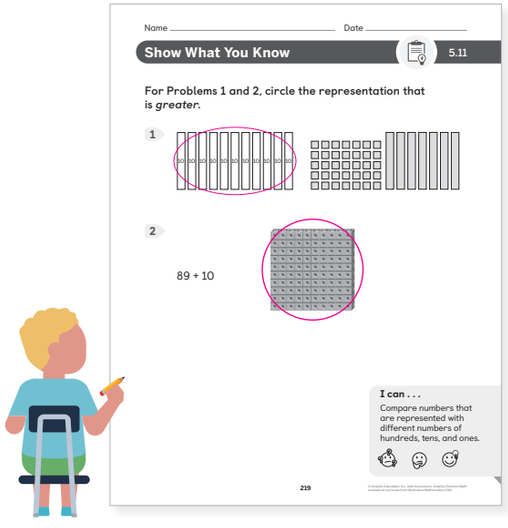
Use the Think-Pair-Share routine. Say, "Tell your partner which number is greater and how you know."

Say, "You can compare two- and three-digit numbers by comparing the number of hundreds, tens, and ones in each number."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min


Name _____ Date _____

Show What You Know 5.11

For Problems 1 and 2, circle the representation that is *greater*.

1

2

89 + 10

I can . . .
Compare numbers that are represented with different numbers of hundreds, tens, and ones.

219

Today's Goal

1. **Goal:** Compare numbers up to 120 represented as different amounts of hundreds, tens, and ones.
   - In Problems 1 and 2 in the *Show What You Know*, students compared numbers represented by different amounts of hundreds, tens, and ones.
2. **Language Goal:** Justify whether a comparison statement, derived from a representation of amounts of hundreds, tens and ones, is true or false. **(Listening and Speaking)**
   ELPS 1.E, 2.E, 2.F

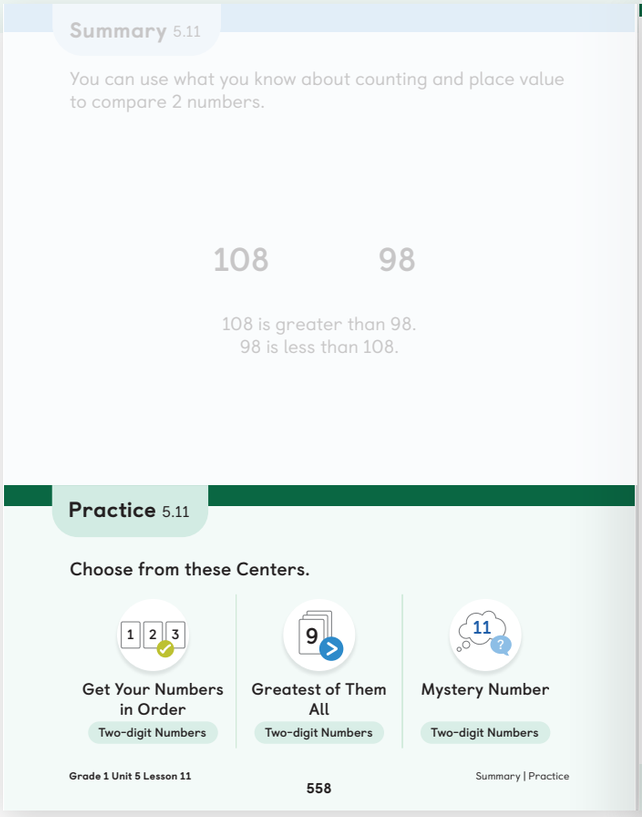
Differentiation See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.11

You can use what you know about counting and place value to compare 2 numbers.

108 98

108 is greater than 98.
98 is less than 108.

Practice 5.11

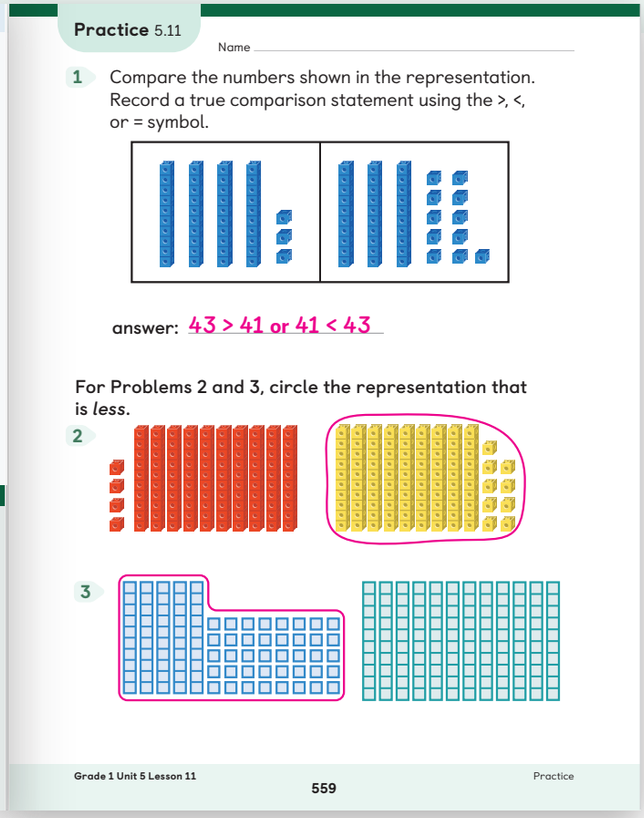
Choose from these Centers.

Get Your Numbers in Order
Two-digit Numbers

Greatest of Them All
Two-digit Numbers

Mystery Number
Two-digit Numbers

Grade 1 Unit 5 Lesson 11 558 Summary | Practice



Practice 5.11

Name _____

1 Compare the numbers shown in the representation. Record a true comparison statement using the >, <, or = symbol.

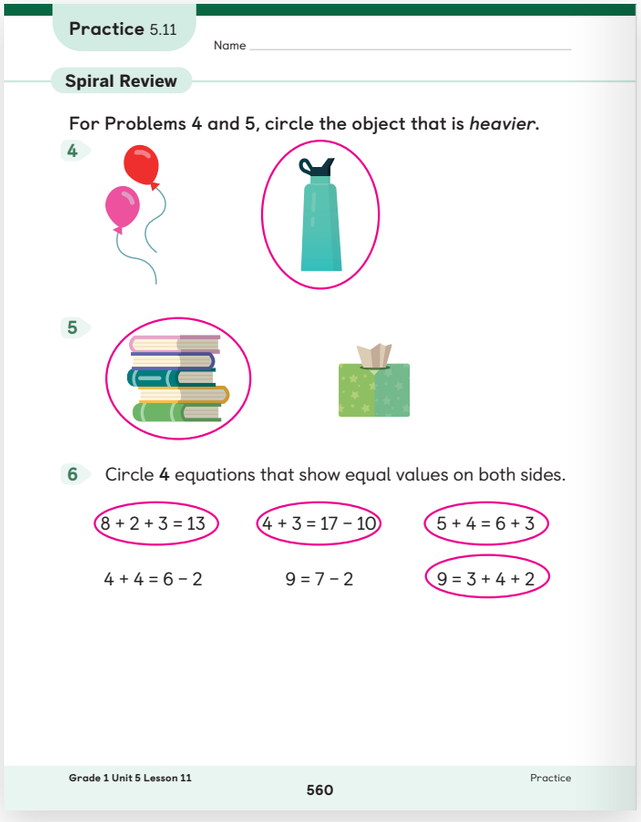
answer: 43 > 41 or 41 < 43

For Problems 2 and 3, circle the representation that is *less*.

2

3

Grade 1 Unit 5 Lesson 11 559 Practice



Practice 5.11

Name _____

Spiral Review

For Problems 4 and 5, circle the object that is *heavier*.

4

5

6 Circle **4** equations that show equal values on both sides.

8 + 2 + 3 = 13

4 + 3 = 17 − 10

5 + 4 = 6 + 3

4 + 4 = 6 − 2

9 = 7 − 2

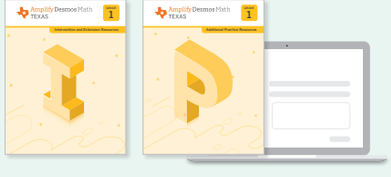
9 = 3 + 4 + 2

Grade 1 Unit 5 Lesson 11 560 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.2.E
Spiral Review			
	4, 5	1	K.7.B
Fluency	6	1	1.5.E

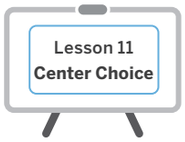
Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Presentation Screen



Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Get Your Numbers in Order

Two-Digit Numbers

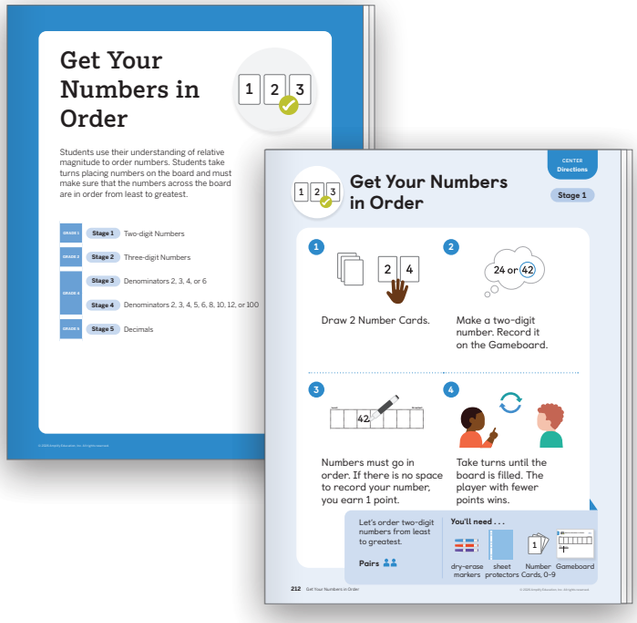
Pairs | 15 min | 1.2.C, 1.2.D, 1.2.F

Students make two-digit numbers and record them from least to greatest to apply place value understanding when considering the relationships between numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- dry-erase markers (two different colors per pair), sheet protectors (one per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 3.



Greatest of Them All

Two-Digit Numbers

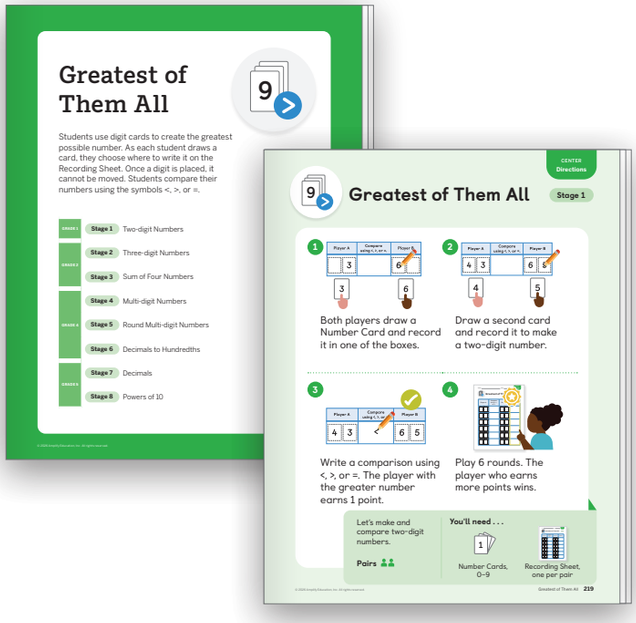
Pairs | 15 min | 1.2.E, 1.2.G

Students create the greatest two-digit number possible to apply place value understanding when comparing numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet (one per pair) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 3.



Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Mystery Number

Two-Digit Numbers

Pairs | 15 min | Building On 1.2.B

Students use place value reasoning to guess two-digit numbers.

Materials

- two-color counters **(Manipulative Kit)**
- Directions, Reference Sheet, Gameboard (A or B) **(Centers Resources)**

Corresponds with the checklist from Unit 4, Sub-Unit 3.

D Differentiation | Teacher Moves

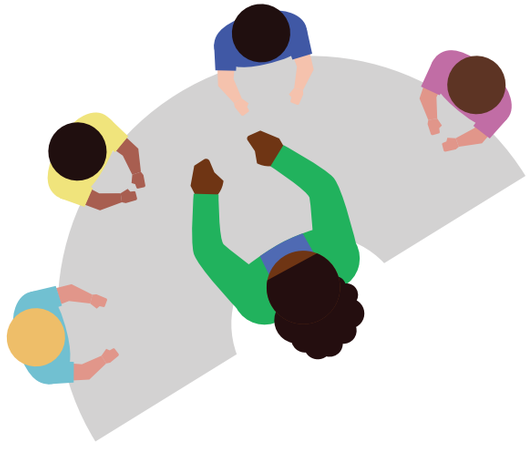
Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 11

Lesson Goal: Compare numbers up to 120 represented as different amounts of hundreds, tens, and ones.

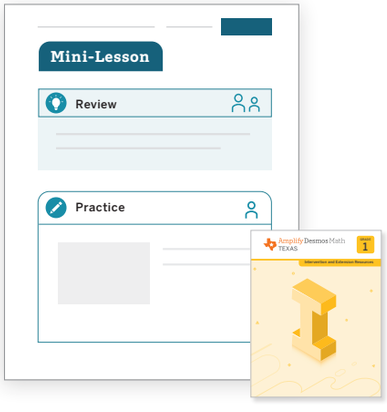
Support

Provide targeted intervention for students by using these resources.

If students compare numbers other than those in the representations or show a different relationship between the numbers:

Respond:

- Assign the *Comparing Different Representations of Two-Digit Numbers* Mini-Lesson. | 15 min
- Revisit Lesson 9.



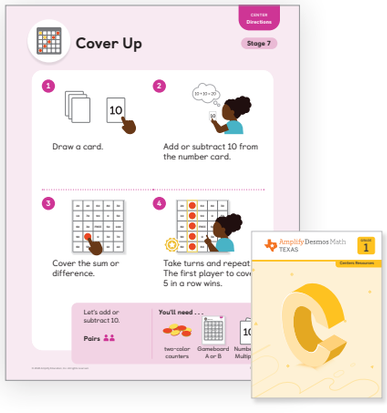
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students compare numbers using comparative language and relationships between the numbers:

Respond:

- Invite students to play these **Centers.** | 15 min
  Cover Up: Add or Subtract 10
  Last Number Wins:
  - *Numbers to 99 by 10*
  - ***Number to 120 by 1***
- Have students complete **Lesson 11 Practice.** | 15 min
- **Item Bank**



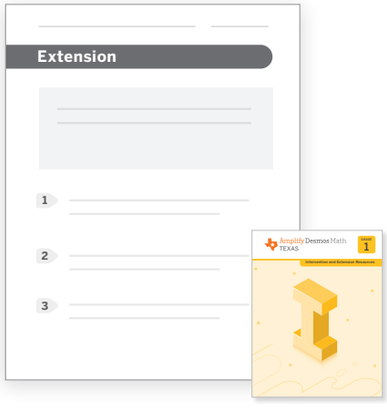
Stretch

Challenge students and extend their learning with these resources.

If students compare numbers using comparative language and place value understanding:

Respond:

- Invite students to explore the **Sub-Unit 3 Extension Activities.** | 15 min
- Revisit Activity 1 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min



Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines



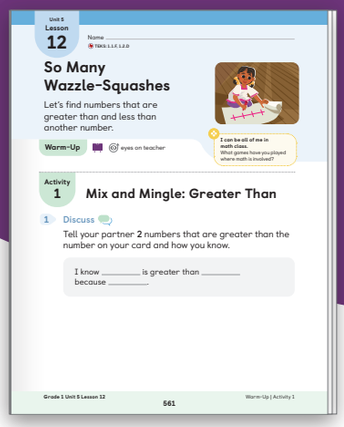


Professional Learning

Think about a recent time in class when students were confused. What did you do to support them in reasoning through their confusion together as a community of learners?

Unit 5
Lesson
12

Student Edition pages and Presentation Screens support learning in this lesson.



So Many Wazzle-Squashes

Generating Numbers Greater Than or Less Than a Given Number

Let's find numbers greater than and less than another number.

Key Concepts

Today's Goals

1. **Goal:** Generate a number that is greater than or less than a given number up to 120.
2. **Language Goal:** Justify whether a number is greater than or less than a given number. **(Listening and Speaking)** ELPS 1.E, 2.E, 2.F

Connections and Coherence

Students apply their understanding of using place value to generate numbers that are greater than and less than a given number up to 120. Students justify how they know a number is greater than or less than another number. They recognize that there are different ways to generate a number that is greater than or less than a given number and compare strategies. **(TEKS 1.1.F)**

Prior Learning

In Grade K, students generated a number that is 1 more and 1 less than a number up to 20. In Lesson 11, students used strategies based on place value to determine whether a number is greater than, less than, or equal to a given number up to 99.

Future Learning

In Lesson 13, students will order numbers up to 120 on an open number line.

Integrating Rigor in Student Thinking

- Students **apply** their understanding of place value to generate numbers greater than and less than a given number.

Vocabulary

Review Vocabulary

greater than

less than

TEKS

Addressing

1.2.D

Generate a number that is greater than or less than a given number up to 120.

Math Process Standards: 1.1.F

ELPS: 1.E, 2.B, 2.C, 2.D, 2.E, 2.F

Building On	Building Toward
K.2.F	2.2.C

Building Math Identity

I can be all of me in math class.
What games have you played where math was involved?

Invite students to reflect on this question as they complete this lesson.

Lesson at a Glance

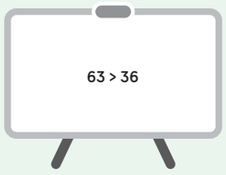
60 min

TEKS: 1.1.F, 1.2.D

Warm-Up

Whole Class | 10 min

Students use the **True or False** routine to determine whether a series of comparison statements are true or false and justify their responses.



Activity 1

Pairs | 15 min

Students use the **Mix and Mingle** routine to generate 2 numbers that are greater than a given number. They use place value language to justify their responses.

Materials: Activity 1 PDF
Additional Prep: Cut out: Activity 1 PDF



Activity 2

Pairs | 15 min

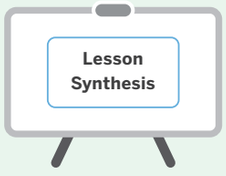
Students generate numbers that are greater than and less than a given number. They discuss strategies generating the numbers and notice that counting and place value strategies can be used.



Synthesis

Whole Class | 5 min

Students review and reflect on the efficiency of different strategies for generating numbers that are greater than and less than a given number.

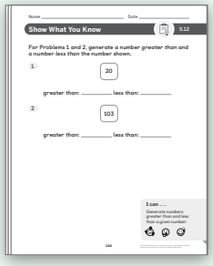


Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by generating numbers that are greater than and a number that is less than a given number.

Materials: *Show What You Know* PDF

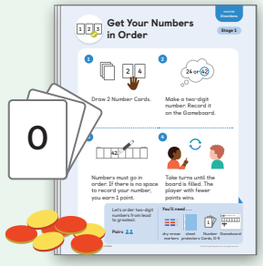


Center Choice Time

Small Groups | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice comparing and identifying two-digit numbers.

- Get Your Numbers in Order
- Greatest of Them All
- Mystery Number



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Visuals
- ✓ Sentence frames and word bank

ELPS 1.E, 2.B, 2.C, 2.D, 2.E, 2.F



Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

Whole Class | 10 min

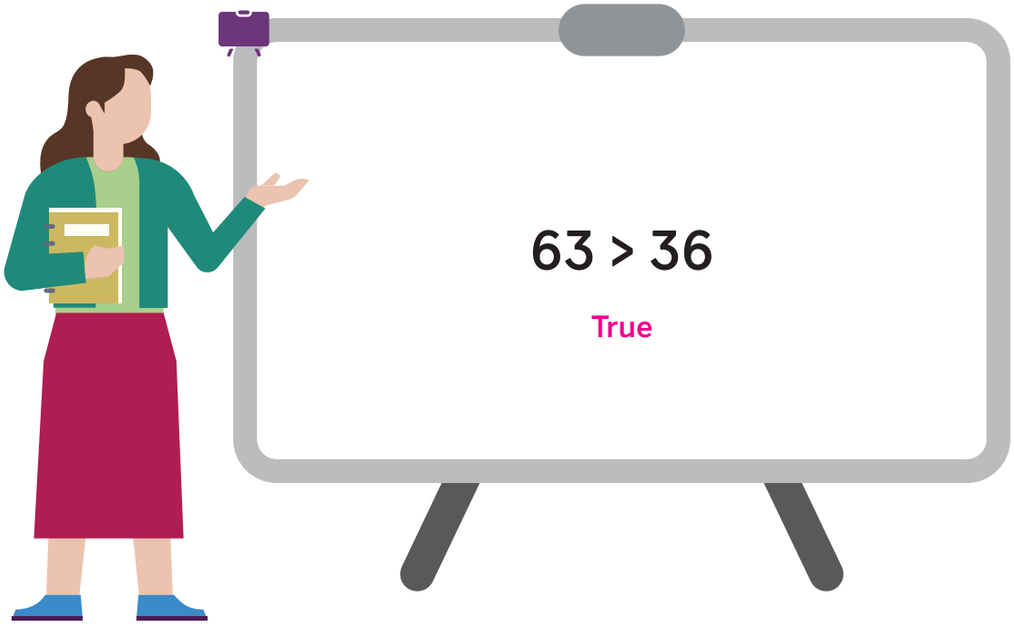
Presentation Screens



Warm-Up True or False

Fluency

Purpose: Students analyze statements involving comparison of 2 numbers to develop strategies for generating numbers greater than or less than a given number.



88 < 8

False

99 > 90

True

83 < 93

True

Why these problems? These statements lend themselves to attending to the value of each digit in numbers in which 1 or more digits is the same.



1 Launch

Use the True or False? routine.

Display 1 comparison statement at a time.

Say, "Give me a signal when you know whether the statement is true and can explain how you know."

2 Connect

Record 2 or 3 students' responses, asking for their reasoning and allowing others to agree or disagree. Keep each comparison statement displayed as you progress to the next.

Repeat with each comparison statement.

Ask, "How does looking at the number of tens and ones in each number help you decide if the statement is true?"

Students might say . . . ELPS 2.B, 2.C, 2.D, 2.E

A: *True. 6 tens is more than 3 tens.*

B: *False. 88 has tens and 8 does not. 88 is greater.*

C: *True. 99 and 90 have the same number of tens, but 9 ones is more than 0 ones.*

D: *True. 8 tens is less than 9 tens.*

Pairs | 15 min

Activity 1 Mix and Mingle: Greater Than

Purpose: Students apply their understanding of place value to generate numbers that are greater than a given number up to 120.

Presentation Screens



Materials

Lesson Resources:

- Distribute one pre-cut card from the Activity 1 PDF to each student.

Short on time? Consider limiting the number of partners students meet with in the **Mix and Mingle** routine.

1 Launch



Display page 10 of the Unit Story, *The Day of the Wazzle-squash*.

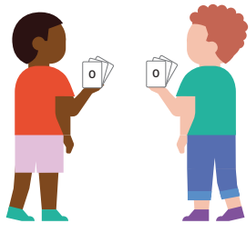
Say, "One of the games that Carmina wants to play at the Wazzle-squash festival involves finding numbers that are greater than other numbers. Carmina wants to practice this skill before the game, so she wrote different numbers on cards."

Distribute 1 card to each student.

Say, "You will meet with a partner and tell them 2 numbers that are greater than the number on your card. After you tell them the numbers, tell your partner how you know the numbers are greater. Then trade cards."

Use the Mix and Mingle routine. Place students in pairs. Students take turns determining 2 numbers greater than the number on their partner's card. After each round, students trade cards and find a new partner. Repeat 3–5 times.

2 Monitor



While students are completing **Problem 1**, refer to the **D Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What do you know about the number on your card?"
- Ask, "How could you use what you know about the value of each digit to find a number that is greater?"

A Accessibility: Memory and attention Provide a visual checklist using pictures to represent the directions to remind students to determine the numbers, discuss how they know, trade cards, find a new partner, and then repeat the steps.

3 Connect



Display the number 102.

Use the Think-Pair-Share routine. Ask, "What are 2 numbers that are greater than this number? How do you know?"

EB Emergent Bilinguals: Invite students to speak using a variety of sentence lengths and grammatical structures. Some students may use longer or shorter sentences. **ELPS 2.C**

Say, "The number 102 has 1 hundred, 0 tens, and 2 ones. A number that is greater than this number must have at least 1 hundred. If it has 1 hundred, then it must either have 1 or more tens or more than 2 ones."

Key Takeaway: Say, "You can use what you know about the value of each digit in a number to find a number that is greater than the number."

Student Edition

Unit 5
Lesson
12

Name _____

TEKS: 1.1.F, 1.2.D

So Many Wazzle-Squashes

Let's find numbers that are greater than and less than another number.



Warm-Up eyes on teacher

I can be all of me in math class.
What games have you played where math is involved?

Activity 1

Mix and Mingle: Greater Than

1 Discuss

Tell your partner **2** numbers that are greater than the number on your card and how you know.

I know _____ is greater than _____ because _____.

Oral activity: No writing expected.

I know 82 is greater than 73 because the number in the tens place is greater. I know 109 is greater than 103 because the tens and hundreds places are the same, but the ones place is greater.

Grade 1 Unit 5 Lesson 12 561 Warm-Up | Activity 1

Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Generate a number that is less than the number on the card.	I know 68 is greater than 73 because 8 ones is greater than 3 ones.	**Support** Ask, "How could you prove that number is greater than the number on the card?"
Generate a number that is greater than the number on the card by counting on.	I know 74 is greater than 73 because it's the next number I say when counting.	**Strengthen** Ask, "How could you use what you know about the number of hundreds, tens, and ones in the numbers to prove those numbers are greater than the number on the card?"
Generate a number that is greater than the number on the card using place value strategies.	I know 79 is greater than 73 because the number of tens is the same, and 9 ones is greater than 3 ones.	**Stretch** Ask, "How could you find a number that is less than 73?"

Pairs | 15 min

Presentation Screens



Activity 2 Less Than

Purpose: Students apply their understanding of place value to generate numbers that are less than and greater than a given number up to 120.

1 Launch

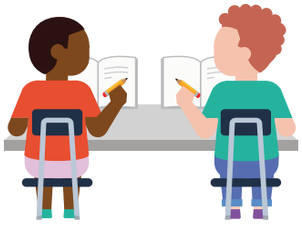


Say, "The practice paid off! Carmina did so well in the game that she moved up to Level 2! This time, Carmina will have to find numbers that are *less than* and *greater than* another number."

Read aloud Problems 2–4.

EB **Emergent Bilinguals:** Encourage students to ask for help or additional clarification as needed, using sentence frames such as "I need help with ____." or "I don't understand ____." ELPS 1.E

2 Monitor



After students complete **Problem 3**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What do you know about the value of each digit in this number?"
- Ask, "How could you use what you know about the value of each digit in this number to find a number that is less?"

3 Connect



MLR **MLR7: Compare and Connect**

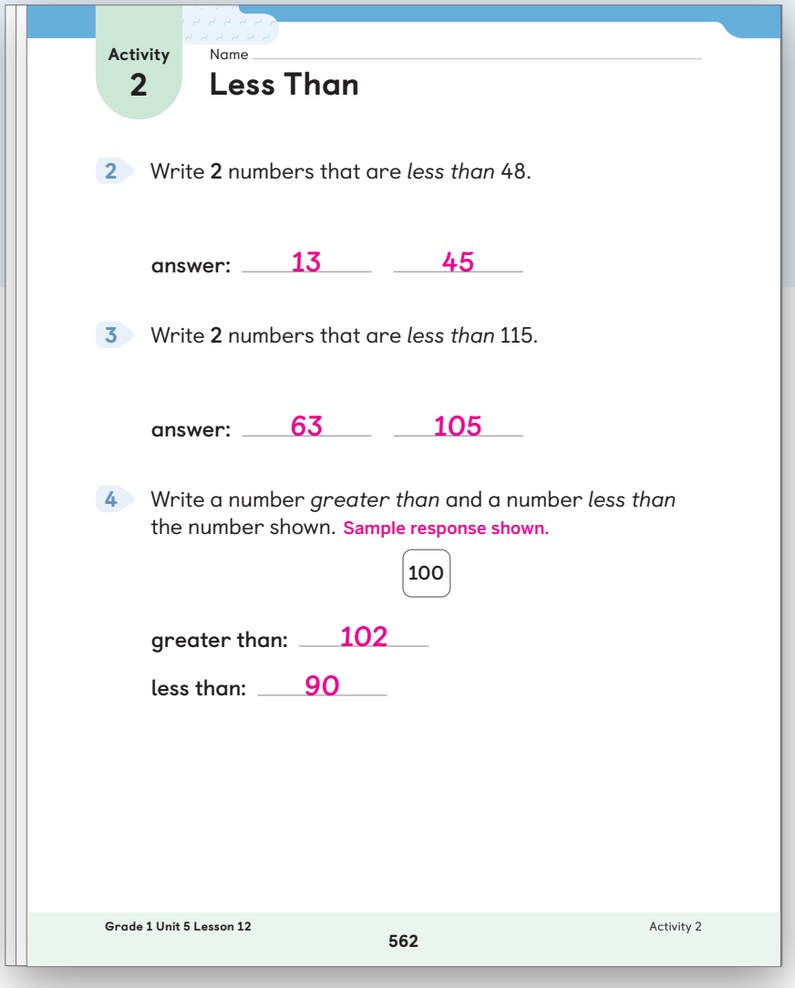
Invite students to share their responses for Problem 4. Record their responses as they share.

Use the Think-Pair-Share routine. Ask:

- "How are your strategies for finding numbers that are greater than a number and less than a number alike?"
- "How are they different? Why?"

Key Takeaway: Say, "There are many ways to find numbers that are greater or less than another number. You can use what you know about counting to count backward or forward. You can also use what you know about the value of each digit to find numbers with values that are greater or less than the number."

Student Edition



Activity 2

Name

Less Than

2 Write 2 numbers that are *less than* 48.

answer: 13 45

3 Write 2 numbers that are *less than* 115.

answer: 63 105

4 Write a number *greater than* and a number *less than* the number shown. Sample response shown.

100

greater than: 102

less than: 90

Grade 1 Unit 5 Lesson 12 562 Activity 2

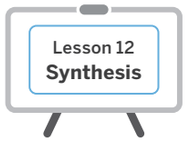
Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Generate a number that is greater than the number on the card.	**120 is less than 115 because there are 0 ones. 0 ones is less than 5 ones.**	**Support** Ask, "How could you prove this number is less than the number on the card?"
Generate a number that is less than the number on the card by eliminating a digit.	**15 is less than 115 because 15 has 2 digits and 115 has 3 digits.**	**Stretch** Ask, "What do you know about the value of each of those digits?"
Generate a number that is less than the number on the card by comparing the values of the digits.	**96 is less than 115 because 96 has no hundreds and 115 has 1 hundred. A number with 0 hundreds is less than a number with 1 hundred.**	**Stretch** Ask, "What might you say to a classmate who says 120 is less than 115 because 120 has 0 ones and 115 has 5 ones?"

Whole Class | 5 min

Presentation Screen



Synthesis

Lesson Takeaway: Strategies based on place value are efficient methods for generating numbers that are greater or less than other numbers.



Ask:

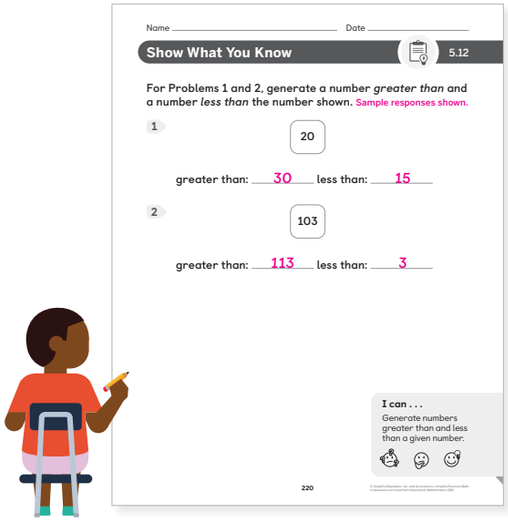
- "How can counting be used to find a number that is greater or less than 95?"
- "How can you use what you know about the value of each digit in the number 95 to find a number that is greater or less than 95?"

Say, "Using what you know about the values of the digits in a number is an efficient strategy for finding other numbers that are greater or less than the number."

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min


Name _____ Date _____

Show What You Know 5.12

For Problems 1 and 2, generate a number *greater than* and a number *less than* the number shown. Sample responses shown.

1. 20

greater than: 30 less than: 15

2. 103

greater than: 113 less than: 3

I can . . .
Generate numbers greater than and less than a given number.

220

Today's Goals

1. **Goal:** Generate a number that is greater than or less than a given number up to 120.
   - In Problems 1 and 2 in the *Show What You Know*, students generated a number greater than and a number less than a given number.
2. **Language Goal:** Justify whether a number is greater than or less than a given number. **(Listening and Speaking)**

   ELPS 1.E, 2.E, 2.F

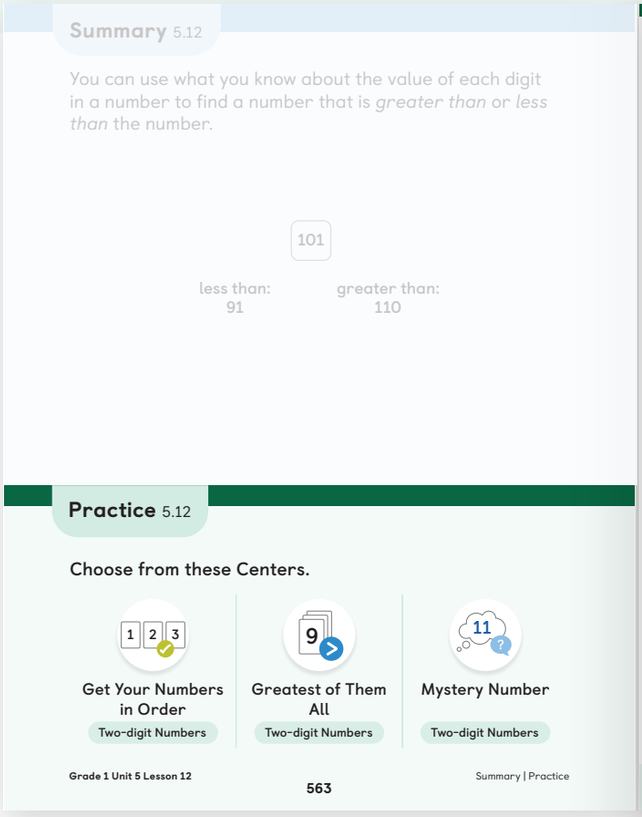
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.12

You can use what you know about the value of each digit in a number to find a number that is *greater than* or *less than* the number.

101

less than: 91

greater than: 110

Practice 5.12

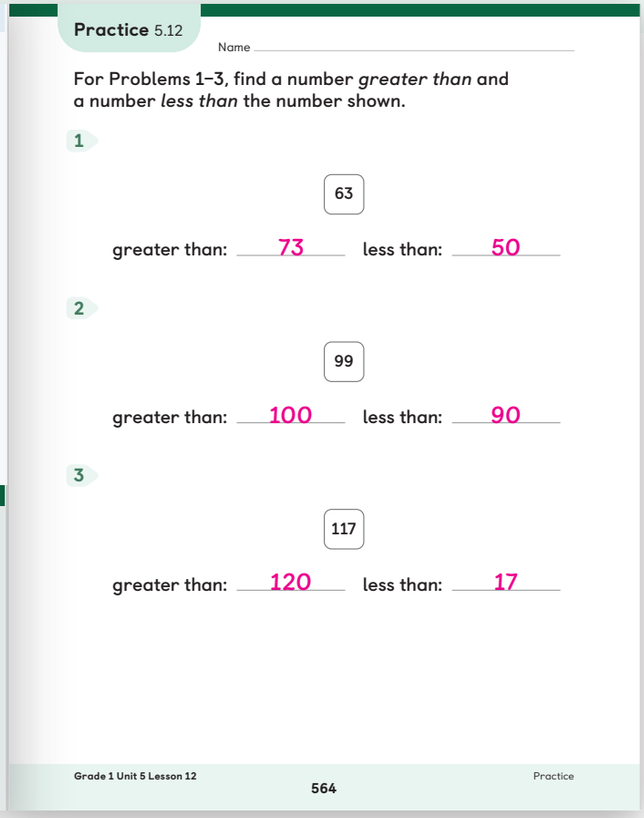
Choose from these Centers.

Get Your Numbers in Order — Two-digit Numbers

Greatest of Them All — Two-digit Numbers

Mystery Number — Two-digit Numbers

Grade 1 Unit 5 Lesson 12 563 Summary | Practice



Practice 5.12

Name _____

For Problems 1–3, find a number *greater than* and a number *less than* the number shown.

1. 63

greater than: 73 less than: 50

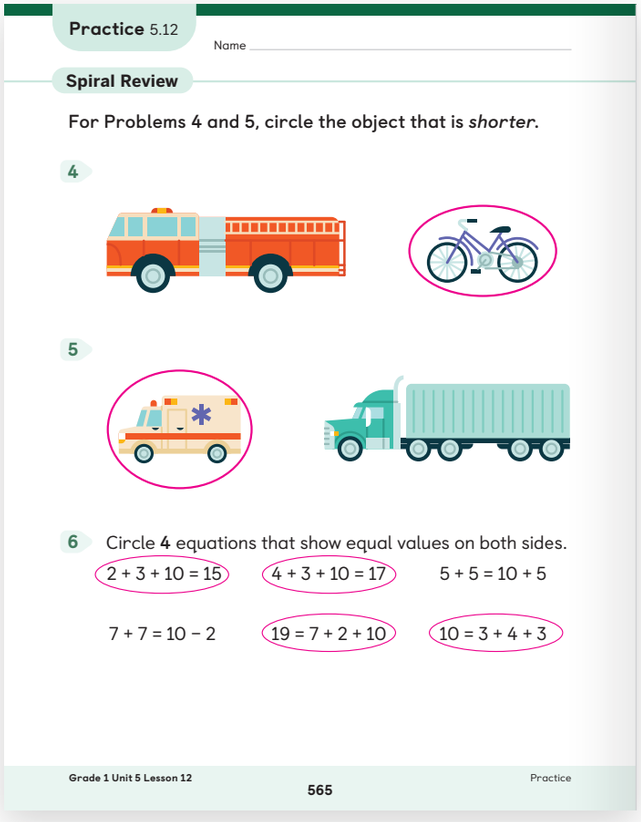
2. 99

greater than: 100 less than: 90

3. 117

greater than: 120 less than: 17

Grade 1 Unit 5 Lesson 12 564 Practice



Practice 5.12

Name _____

Spiral Review

For Problems 4 and 5, circle the object that is *shorter*.

4.

5.

6. Circle 4 equations that show equal values on both sides.

2 + 3 + 10 = 15 | 4 + 3 + 10 = 17 | 5 + 5 = 10 + 5

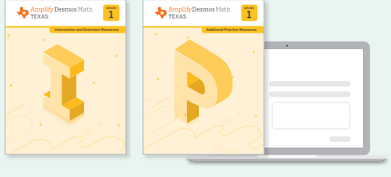
7 + 7 = 10 − 2 | 19 = 7 + 2 + 10 | 10 = 3 + 4 + 3

Grade 1 Unit 5 Lesson 12 565 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.2.D
Spiral Review			
	4, 5	1	K.7.B
Fluency	6	1	1.5.E

Need more Practice?

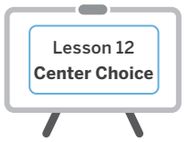


Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Presentation Screen



Short on time? Consider omitting the Center Choice Time.

Get Your Numbers in Order

Two-Digit Numbers

Pairs | 15 min | 1.2.C, 1.2.D, 1.2.F

Students make and record two-digit numbers from least to greatest to apply place value reasoning when considering the relationships between numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- dry-erase markers (2 different colors per pair), sheet protectors (1 per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 3.

Greatest of Them All

Two-Digit Numbers

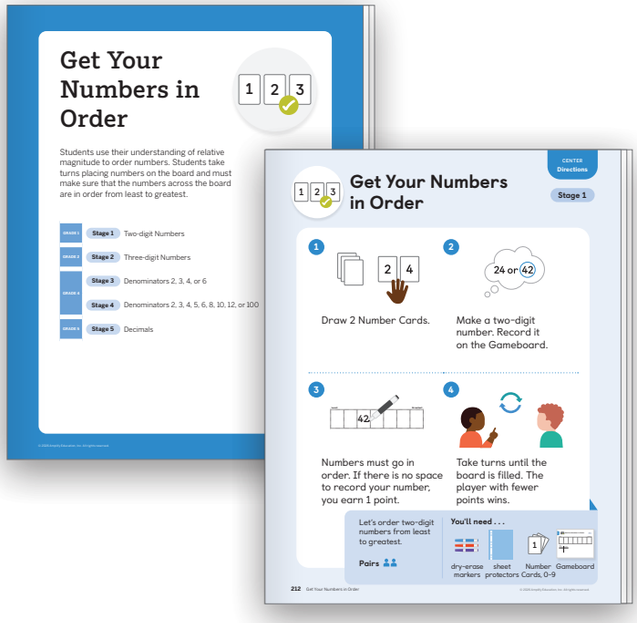
Pairs | 15 min | 1.2.E, 1.2.G

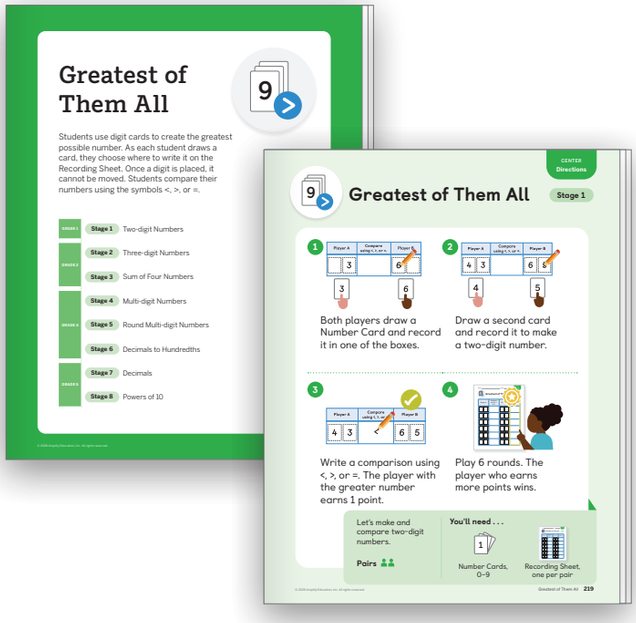
Students create the greatest two-digit number possible to apply place value reasoning when comparing numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 3.





Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Mystery Number

Two-Digit Numbers

Pairs | 15 min | Building Toward 1.2.B

Students use place value reasoning to guess two-digit numbers.

Materials

- two-color counters **(Manipulative Kit)**
- Directions, Reference Sheet, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 3.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 12

Lesson Goal: Generate a number that is greater than or less than a given number up to 120.

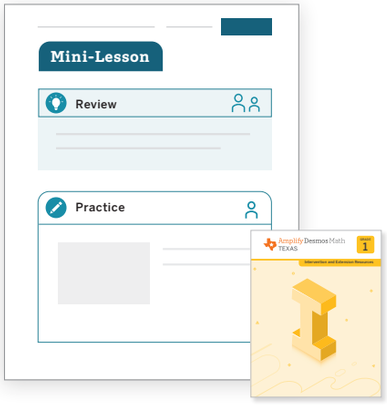
Support

Provide targeted intervention for students by using these resources.

If students switch numbers that are greater than and less than:

Respond:

- Assign the *Finding Numbers Greater Than or Less Than a Given Number* Mini-Lesson. | 15 min
- Review Row 1 of the Activity 2 *Differentiation: Teacher Moves table.*



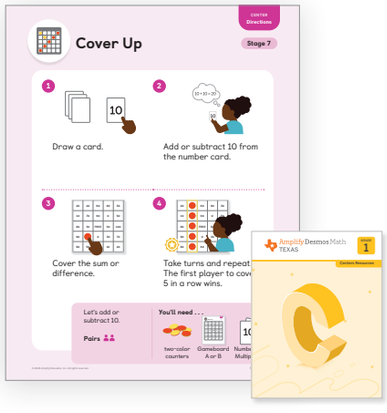
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students generate numbers greater than and less than using counting:

Respond:

- Invite students to play these **Centers.** | 15 min
  Cover Up: Add or Subtract 10
  Last Number Wins:
  - *Numbers to 99 by 10*
  - *Number to 120 by 1*
- Have students complete **Lesson 12 Practice.** | 15 min
- **Item Bank**



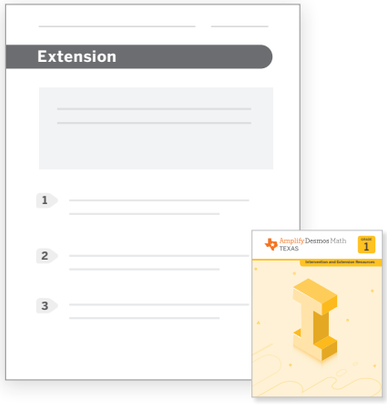
Stretch

Challenge students and extend their learning with these resources.

If students generate numbers greater than and less than using place value reasoning:

Respond:

- Invite students to explore the **Sub-Unit 3 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min



Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.

• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines





Professional Learning

Evaluate your students' understanding of today's topic. What did they understand easily? What will they need support with to be successful in Lesson 13?

Unit 5
Lesson
13

Student Edition pages and Presentation Screens support learning in this lesson.



Ordering Wazzle-Squashes

Ordering Numbers on an Open Number Line

Let's put numbers up to 120 in order.

Key Concepts

Today's Goals

1. **Goal:** Order numbers up to 120 using open number lines and place value.
2. **Language Goal:** Explain how to order numbers using an open number line. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

Connections and Coherence

Students compare and order one-, two-, and three-digit numbers using place value strategies. Then they explore how an **open number line** can be used to order numbers and use an open number line to explain the process to others. **(TEKS 1.1.D)**

Prior Learning

In Unit 4, students ordered two-digit numbers and compared them using >, <, and = symbols. In Lesson 11, students used place value to compare three-digit numbers.

Future Learning

In Grade 2, students will find the position of a given whole number on an open number line.

Integrating Rigor in Student Thinking

- Students **apply** their understanding of ordering one- and two-digit numbers to order numbers up to 120 on an open number line.

Vocabulary

New Vocabulary

open number line

Review Vocabulary

greater than

less than

TEKS

Addressing

1.2.F

Order whole numbers up to 120 using place value and open number lines.

Math Process Standards: 1.1.D

ELPS: 1.B, 2.B, 2.C, 2.E, 3.E, 3.F

Building On	Building Toward
K.2.F	2.2.E

Building Math Identity

We are a math community.
Think of a time when you won a game in math. How did you show good sportsmanship to your partner?

Invite students to reflect on this question as they complete this lesson.

Lesson at a Glance

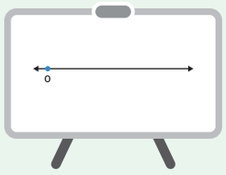
60 min

TEKS: 1.1.D, 1.2.F

Warm-Up

Whole Class | 10 min

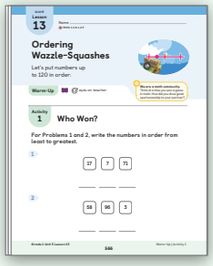
Students use the **Notice and Wonder** routine to share what they notice and wonder about an **open number line** marked with a 0 to prepare them for placing numbers on an open number line.



Activity 1

Pairs | 15 min

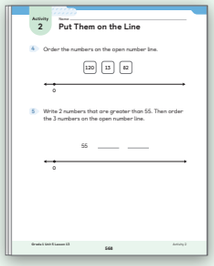
Students compare and order one- and two-digit numbers using place value strategies and an open number line.



Activity 2

Pairs | 15 min

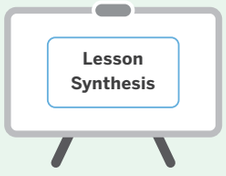
Students use the **Notice and Wonder** routine to apply their understanding of ordering two-digit numbers to order numbers up to 120 on open number lines. They attend to the relative magnitude of numbers as they order them on the open number line.



Synthesis

Whole Class | 5 min

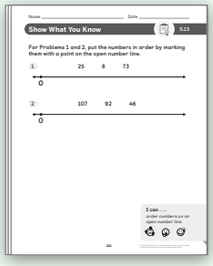
Students review and reflect on how to use place value and attend to the relative magnitude of numbers to order numbers up to 120 on an open number line.



Show What You Know (optional)

Independent | 5 min

Students demonstrate their understanding by ordering numbers on an open number line.

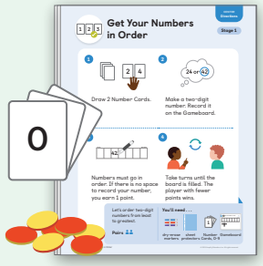


Center

Pairs | 15 min

Students have an opportunity to revisit these Centers to build fluency and practice organizing, counting, and describing quantities.

- Get Your Numbers in Order
- Greatest of Them All
- Mystery Number



Math Language Development

Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 1, Monitor** to support math language acquisition.



- ✓ Cognates
- ✓ Visuals
- ✓ Frayer Model
- ✓ Sentence frames and word bank

ELPS 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 2.F

Pre-Production	Beginning	Intermediate	High Intermediate	Advanced
Students **listen** to spoken English and **respond** using their primary languages and gestures.	Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.	Students **listen** to spoken English and **speak** using short phrases or simple sentences.	Students **listen** to spoken English and **speak** using a variety of sentence types.	Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

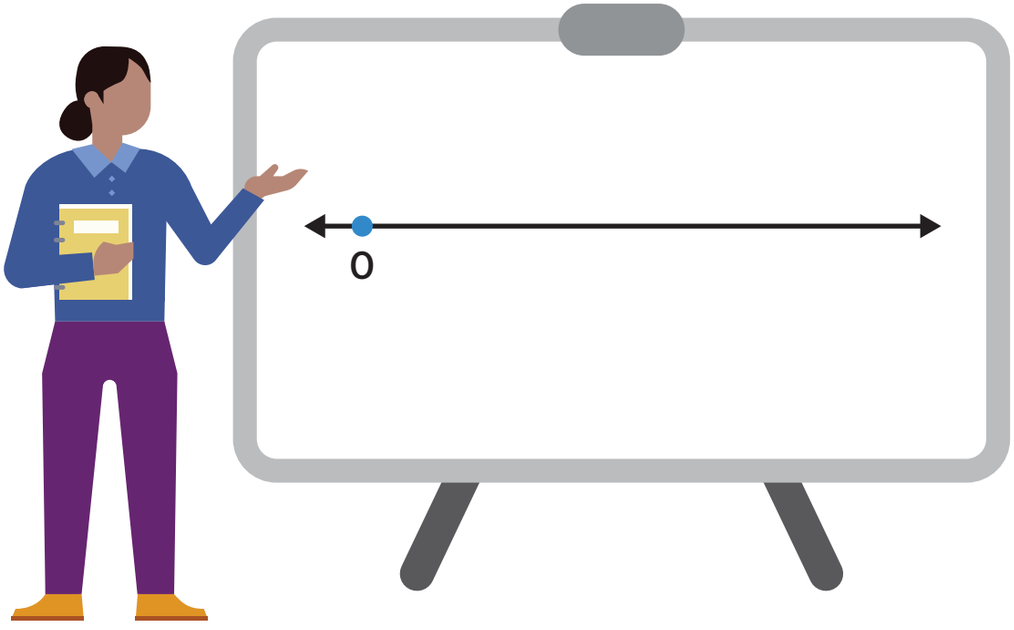
Whole Class | 10 min

Presentation Screen



Warm-Up Notice and Wonder

Purpose: Students examine an open number line marked only with 0 to prepare for ordering whole numbers up to 120 on an open number line.





1 Launch

Display the image.

Use the Notice and Wonder routine.

Use the Think-Pair-Share routine. Ask, "What do you notice? What do you wonder?"

2 Connect

Record students' responses as they share.

Say, "This representation is called an **open number line**. Today, you will explore using an open number line to order numbers."

Students might say . . . ELPS 2.B

I notice it looks like a line with a 0 on it.

I notice there are arrows on the ends.

I wonder why the 0 is all the way to the left.

I wonder why there isn't anything else on the line.

Pairs | 15 min

Activity 1 Who Won?

Purpose: Students apply their understanding of ordering numbers from least to greatest to ordering numbers on an open number line.

Presentation Screens



Short on time? Consider omitting Problems 1 and 2.

1 Launch



Say, "At the Wazzle-Squash Festival, the Faraway Fire Department organized a wazzle-squash hunt. They hid hundreds of orange-painted wazzle-squashes around the festival. Townsfolk competed by writing the number of orange wazzle-squashes they saw on an entry card. The fire chief collected the entry cards and announced that the townsperson who saw the most wazzle-squashes would win!"

Use the Think-Pair-Share routine. Ask, "After the fire chief collected all the entry cards, how could he figure out who the winner is?"

Read aloud the directions to Problems 1 and 2. Have partners work together for 3 minutes.

Ask, "How did you put the numbers in order?"

Say, "You can compare the number of tens and ones in each number to help you to put them in order."

Read aloud Problem 3.

2 Monitor



After students have completed **Problem 3**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "What do you know about the number of tens and ones in these numbers?"
- Ask, "How could you use what you know about the number of tens and ones in each number to find the smallest number?"

3 Connect



Display Problem 3.

Invite students to share their responses to Problem 3.

MLR **MLR7: Compare and Connect** ELPS 1.B

Use the Think-Pair-Share routine. To help students demonstrate an understanding of vocabulary, ask:

- "How is using an open number line to order numbers similar to other work you have done with ordering numbers?"
- "How is using an open number line to order numbers different from other work you have done with ordering numbers?"

A **Accessibility: Visual-spatial processing** Invite students to make a life-sized number line. Place a long piece of tape on the floor and assign each student a number. Then have them decide where to stand on the line.

Key Takeaway: Say, "You can use an open number line to order numbers. When you order numbers on an open number line, it is important to locate 0 and make sure all the numbers, including 0, are in order from least to greatest."

Unit 5
Lesson
13

Name

TEKS: 1.1.D, 1.2.F

Ordering Wazzle-Squashes

Let's put numbers up to 120 in order.



Warm-Up eyes on teacher

We are a math community. Think of a time you won a game in math. How did you show good sportsmanship to your partner?

Activity 1 Who Won?

For Problems 1 and 2, write the numbers in order from least to greatest.

1

17 7 71

7 17 71

2

58 96 3

3 58 96

Activity 1

Name

Who Won? (continued)

3 Use the **open number line** to order the numbers. Represent each number on the number line by marking the line with a point and writing the number below the point.

25 94 62



Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Place the numbers on the open number line in the same order shown in the problem.	25 94 62 0 25 94 62	**Support** Ask, "How could you use the 0 to help you put the other numbers in order?"
Almost there Order the numbers on the open number line from greatest to least.	25 94 62 0 94 62 25	**Support** Ask, "How could you make sure you have represented all the numbers on the number line?"
Order the numbers on the open number line.	25 94 62 0 25 62 94	**Stretch** Ask, "Think of a number greater than 100. How would your open number line change if you added that number to the line?"

Pairs | 15 min

Presentation Screens



Activity 2 Put Them on the Line

Purpose: Students apply their understanding of ordering one- and two-digit numbers on an open number line to order numbers up to 120.

1 Launch



Display Problem 4.

Use the Notice and Wonder routine.

Ask, "How could you use what you know about ordering one- and two-digit numbers to help you order three-digit numbers?"

Read aloud Problems 4–6.

2 Monitor



While students complete **Problem 4**, refer to the D Differentiation | Teacher Moves table on the following page.

If students need help getting started . . .

- Ask, "Which number is the greatest? How do you know?"
- Ask, "Where could you place the greatest number on the open number line and why?"

3 Connect



Display 2 open number lines that represent students' responses using Rows 2 and 3 in the *Differentiation* table.

Say, "Two students represented their responses to Problem 4 in different ways."

MLR **MLR7: Compare and Connect** ELPS 1.B

Use the Think-Pair-Share routine. Ask:

- "How are these open number lines the same?"
- "How are these open number lines different?"

Say, "When ordering one-, two-, and three-digit numbers, you can use what you know about place value to decide which number is the greatest and which is the least. You can put some numbers closer together on the line if you know their values are closer together."

EB **Emergent Bilinguals:** Create a classroom display with sentence frames students can use when describing how the numbers are marked on the number line, such as "_____ is before/after/closer to _____ because _____." ELPS 2.C

Key Takeaway: Say, "You can use what you know about the number of hundreds, tens, and ones in a number to help you place the numbers in order on an open number line and to determine how far apart to space the numbers."

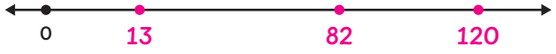
Activity 2

Name _____

Put Them on the Line

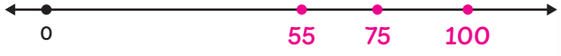
4 Order the numbers on the open number line.

120 13 82



5 Write 2 numbers that are greater than 55. Then order the 3 numbers on the open number line.
Sample response shown.

55 75 100



Activity 2

Name _____

Put Them on the Line (continued)

6 Discuss

Use the open number line from Problem 5 to explain to your partner how to order numbers on an open number line.

You can order numbers on an open number line by _____.

Oral activity: No writing expected. Sample response shown.

You can order numbers on an open number line by looking at the digits in each number and finding which number is the greatest and which is the least. Then you find 0 on the open number line and write the numbers in order.

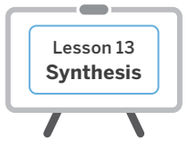
Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Use counting to order the numbers on the open number line.	120 13 82 0 13 82 120	**S Strengthen** Ask, "How could you use what you know about place value to order the numbers?"
Use place value to order the numbers on the open number line.	120 13 82 0 13 82 120	**S Strengthen** Ask, "Would 82 be closer to 13 or 120? How do you know?"
Use place value to order the numbers on the open number line, attending to the relative magnitude of the numbers.	120 13 82 0 13 82 120	**S Stretch** Ask, "Think of a number less than 120. Where would the number go on the open number line? How do you know?"

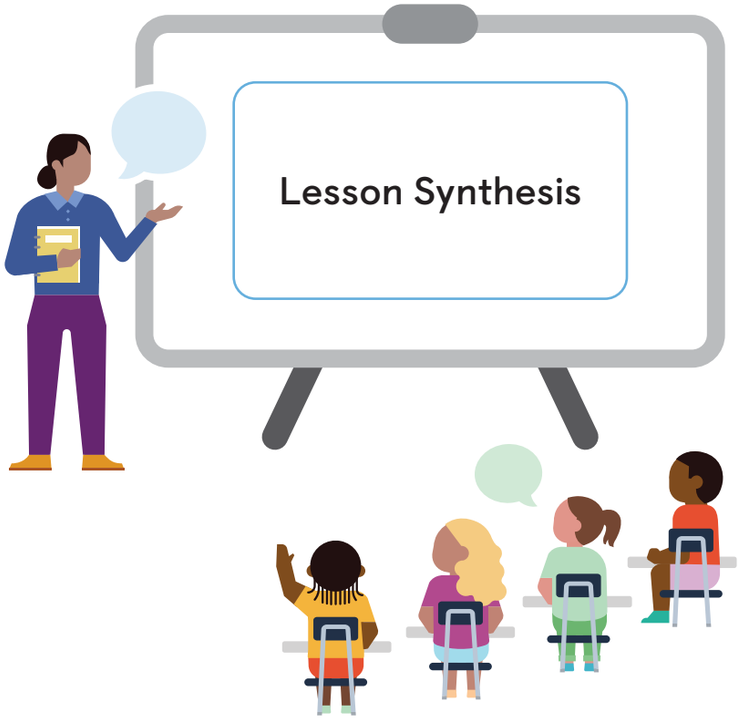
Whole Class | 10 min

Presentation Screen



Synthesis

Lesson Takeaway: Place value and **open number lines** can be used to order numbers. Open number lines are helpful representations because they can be used to show the relative magnitude of the numbers.



Use the Think-Pair-Share routine. Ask, "Where could you put 100 on the open number line?"

Say, "Open number lines can be used to order numbers. You can use what you know about the values of the numbers to think about where to place them on an open number line."

Formalize vocabulary: An **open number line** is a representation that can be used to represent numbers in order. (optional)

Consider using the Frayer Model routine with the word **open number line**. ELPS 3.E, 3.F

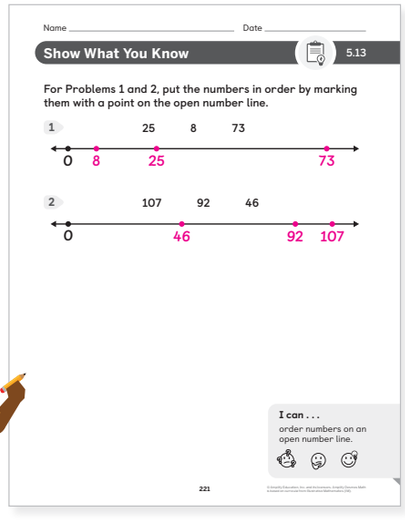
Refer to the *Math Language Development Resources* for a description of this routine and for more vocabulary support.

Invite students to refer to the **Summary** during Practice or anytime during the year.

Show What You Know (Optional)

Independent | 5 min

Show What You Know PDF


Name _____ Date _____

Show What You Know 5.13

For Problems 1 and 2, put the numbers in order by marking them with a point on the open number line.

1 25 8 73

0 8 25 73

2 107 92 46

0 46 92 107

I can . . .
order numbers on an open number line.

221



Today's Goals

1. **Goal:** Order numbers up to 120 using open number lines and place value.
   - In Problems 1 and 2 in the *Show What You Know*, students ordered numbers up to 120 on an open number line.
2. **Language Goal:** how to order numbers using an open number line. **(Listening and Speaking)** ELPS 1.B, 2.B, 2.E

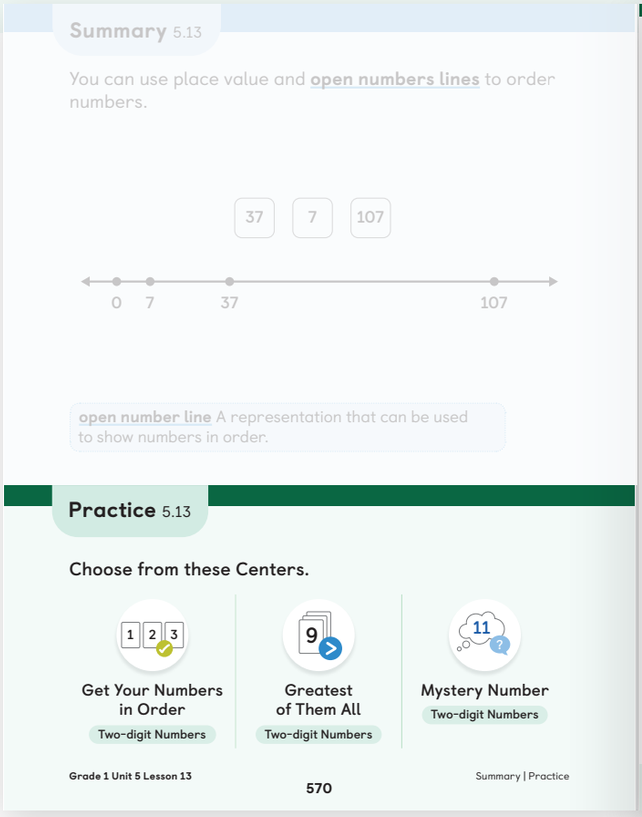
D **Differentiation** See the last page of the lesson for differentiation and Math Language Development support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print



Summary 5.13

You can use place value and **open numbers lines** to order numbers.

37 7 107

0 7 37 107

open number line A representation that can be used to show numbers in order.

Practice 5.13

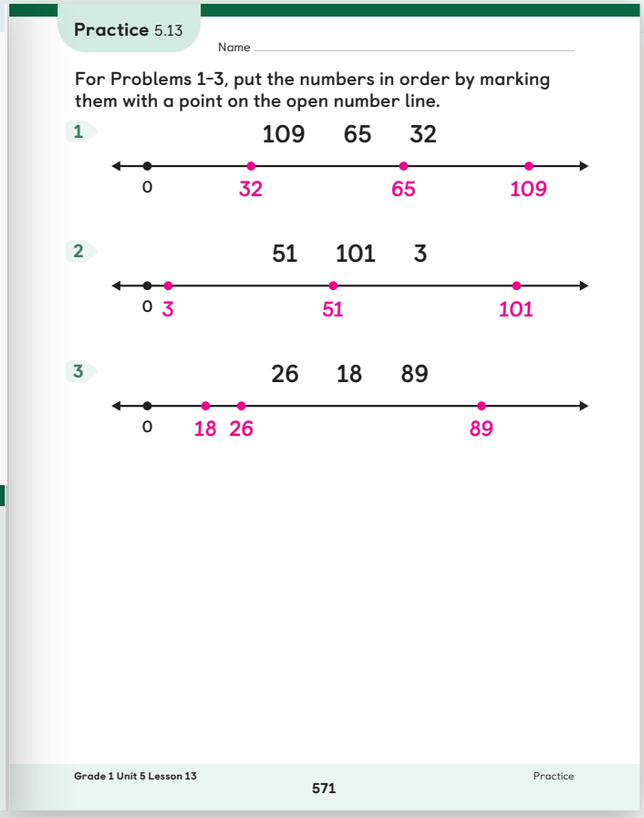
Choose from these Centers.

Get Your Numbers in Order — Two-digit Numbers

Greatest of Them All — Two-digit Numbers

Mystery Number — Two-digit Numbers

Grade 1 Unit 5 Lesson 13 570 Summary | Practice



Practice 5.13

Name _____

For Problems 1–3, put the numbers in order by marking them with a point on the open number line.

1 109 65 32

0 32 65 109

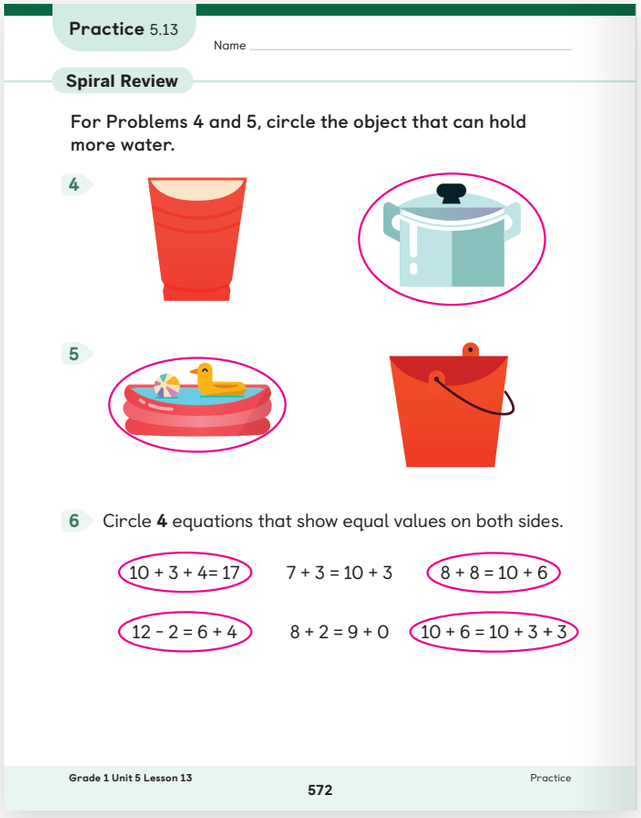
2 51 101 3

0 3 51 101

3 26 18 89

0 18 26 89

Grade 1 Unit 5 Lesson 13 571 Practice



Practice 5.13

Name _____

Spiral Review

For Problems 4 and 5, circle the object that can hold more water.

4

5

6 Circle **4** equations that show equal values on both sides.

10 + 3 + 4 = 17 | 7 + 3 = 10 + 3 | 8 + 8 = 10 + 6

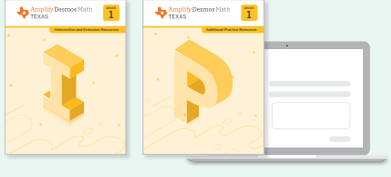
12 - 2 = 6 + 4 | 8 + 2 = 9 + 0 | 10 + 6 = 10 + 3 + 3

Grade 1 Unit 5 Lesson 13 572 Practice

Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-Lesson			
	1–3	1	1.2.F
Spiral Review			
	4, 5	1	K.7.B
Fluency	**6**	1	1.5.E

Need more Practice?



Additional practice can be found in the **Practice Resources, Intervention and Extension Resources,** and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

Center Choice Time

Purpose: Use this time to support students working in Centers, gather formative assessment data, or work with a small group of students on targeted skills.

Presentation Screen



Get Your Numbers in Order

Two-Digit Numbers

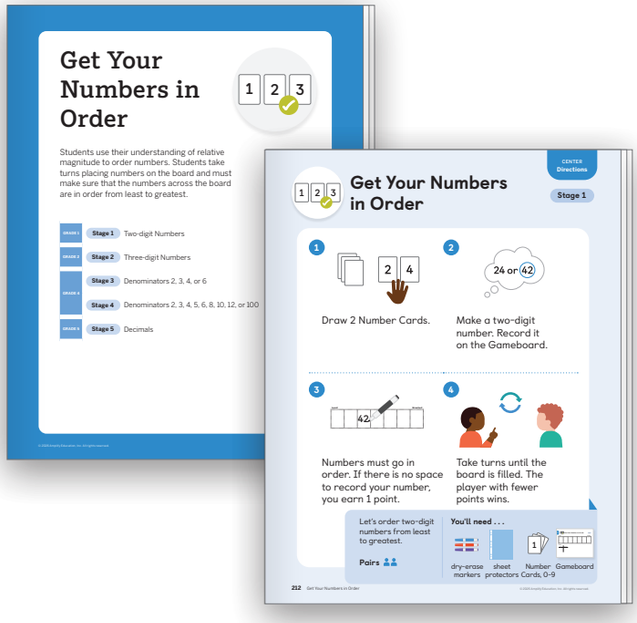
Pairs | 15 min | 1.2.C, 1.2.D, 1.2.F

Students make and record two-digit numbers from least to greatest to apply place value reasoning when considering the relationships between numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- dry-erase markers (2 different colors per pair), sheet protectors (1 per pair) **(Classroom materials)**
- Directions, Gameboard **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 2.



Greatest of Them All

Two-Digit Numbers

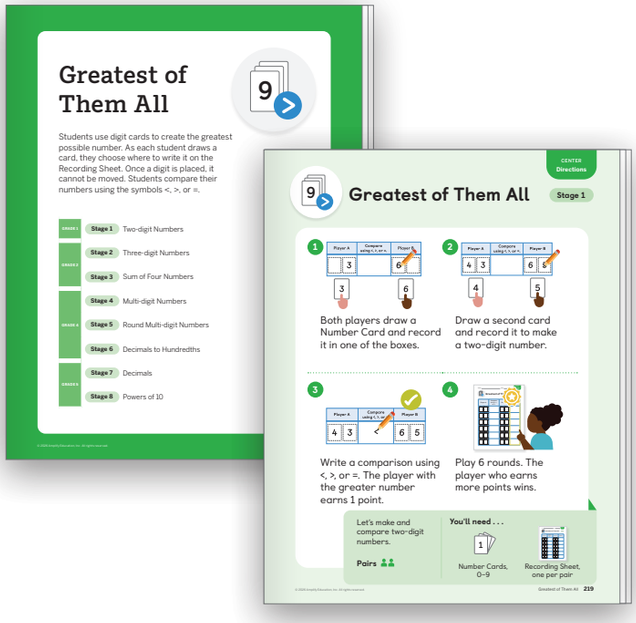
Pairs | 15 min | 1.2.E, 1.2.G

Students create the greatest two-digit number possible to apply place value reasoning when comparing numbers.

Materials

- number cards (0–9) **(Manipulative Kit)**
- Directions, Recording Sheet **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 3.



Use Centers as games to offer fun and engaging ways for students to practice math skills.

GAMES

Mystery Number

Two-Digit Numbers

Pairs | 15 min | Building Toward 1.2.B

Students use place value reasoning to guess two-digit numbers.

Materials

- two-color counters **(Manipulative Kit)**
- Directions, Reference Sheet, Gameboards (A, B) **(Centers Resources)**

Corresponds with the checklist from Unit 5, Sub-Unit 3.

D Differentiation | Teacher Moves

Work with students in their Centers by:

- Reinforcing Center routines and positive interactions.
- Asking probing questions to propel student thinking forward.
- Recording observations using the checklist provided.

Consider pulling a small group of students for:

- Reviewing the lesson's learning goal by using the *Mini-Lesson* or the supports provided in the lesson.
- Reviewing essential skills from prior lessons or units.





Differentiation Use after Lesson 13

Lesson Goal: Order numbers up to 120 using open number lines and place value.

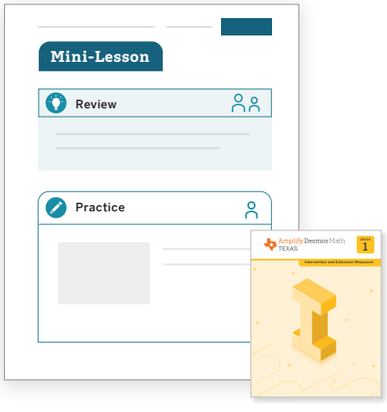
Support

Provide targeted intervention for students by using these resources.

If students mark numbers on the open number line in the order they are presented:

Respond:

- Assign the *Using Open Number Lines to Order Numbers* Mini-Lesson. | 15 min
- Review Row 1 of the Activity 1 *Differentiation: Teacher Moves* table.



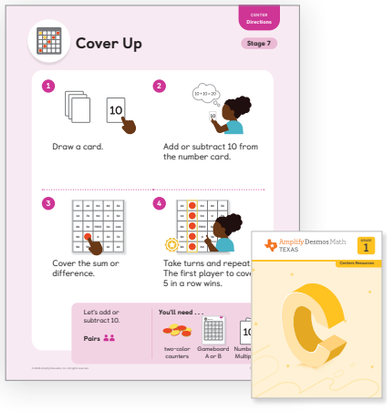
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If students mark numbers in order with equal spacing between each number:

Respond:

- Invite students to play these **Centers.** | 15 min
  Cover Up: Add or Subtract 10
  ***Last Number Wins**:*
  - *Numbers to 99 by 10*
  - ***Numbers to 120 by 1***
- Have students complete **Lesson 13 Practice.** | 15 min
- **Item Bank**



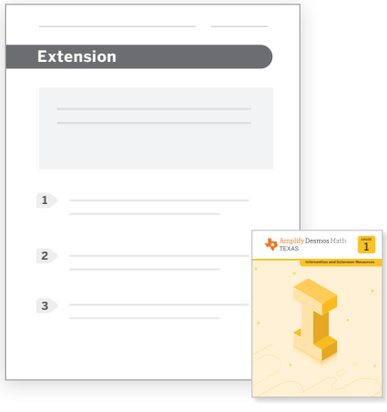
Stretch

Challenge students and extend their learning with these resources.

If students mark numbers in order by leaving larger spaces between numbers with bigger differences:

Respond:

- Invite students to explore the **Sub-Unit 3 Extension Activities.** | 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | 5 min



Support, *Strengthen*, and *Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.
• **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

Math Language Development

EB Use the **Math Language Development Resources** for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines





Professional Learning

What other opportunities might students have for using open number lines in the classroom? How can you support students' ongoing engagement with number lines as they develop their understanding of ordering numbers?

Notes:

Watch Your Knowledge Grow (Optional)

Purpose: At the beginning of the unit, students rated their understanding of the concepts they were about to explore in the unit. Return to this page at the end of the unit and invite them to rate their understanding again to see how their knowledge has grown.

Invite students to return to the *Watch Your Knowledge Grow* page at the beginning of their Student Edition for this unit.

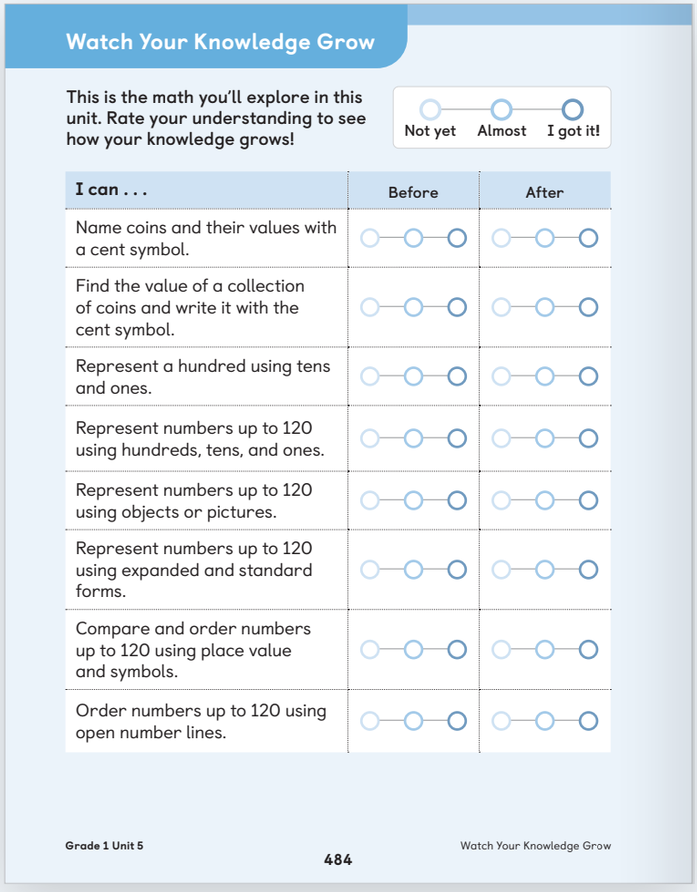
Say, "These were the math concepts that you explored in this unit." Read aloud, or ask a student volunteer to read aloud, the *I can* statements.

Invite students to rate their understanding of each concept now that they have completed the unit. Then invite them to compare their new understanding to how they rated it at the beginning of the unit. Consider pairing students with a partner and inviting them to discuss these questions:

- "What do you notice? What do you wonder?"
- "How did your knowledge grow in this unit?"
- "What questions do you still have?"

EB **Emergent Bilinguals** Consider pairing students with partners who speak the same primary language and inviting them to respond to your questions first in their primary language or using a mixture of their primary language and English. **ELPS 1.C, 1.E, 2.C, 2.F**

Math Identity and Community Celebrate the growth of student knowledge throughout the unit, as well as any questions that students still may have about the math concepts they explored. Remind students that it is a normal part of learning to continue to have questions. If you displayed a chart of students' questions in Unit 1, refer back to it and ask if any of their questions from Unit 1 have been answered. Celebrate any new growth in knowledge, as well as any additional questions that may get added to the chart for this unit!



Watch Your Knowledge Grow

This is the math you'll explore in this unit. Rate your understanding to see how your knowledge grows!

Not yet Almost I got it!

I can . . .	Before	After
Name coins and their values with a cent symbol.		
Find the value of a collection of coins and write it with the cent symbol.		
Represent a hundred using tens and ones.		
Represent numbers up to 120 using hundreds, tens, and ones.		
Represent numbers up to 120 using objects or pictures.		
Represent numbers up to 120 using expanded and standard forms.		
Compare and order numbers up to 120 using place value and symbols.		
Order numbers up to 120 using open number lines.		

Grade 1 Unit 5 484 Watch Your Knowledge Grow

Notes:

Assess and Respond

Support, strengthen, and stretch learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Boost Personalized Learning** • **Fluency Practice** • **Math Adventures**

End-of-Unit Assessment

Independent | 45 min

Facilitation: Assign the End-of-Unit Assessment to learn about your students' understanding of concepts and skills in this unit. Read aloud the problems to students as needed.

Item Analysis

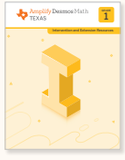
Problem(s)	Concept or skill	Addressed in	DOK	TEKS
1, 2	Using expanded and standard forms to represent numbers up to 120	Lesson 7	2	1.2.C, 1.5.G
3, 4	Using pictures to represent numbers up to 120	Lesson 6	1	1.2.B
5, 6	Representing the comparison of 2 numbers to 100 using the symbols >, <, or =	Lesson 11	1	1.2.G 1.1.D
7	Generating a number that is greater than or less than a given number up to 120	Lesson 12	1	1.2.D
8	Ordering numbers up to 120 using an understanding of place value and open number lines	Lesson 13	2	1.2.F 1.1.E
9	Using place value to compare whole numbers up to 120 using comparative language	Lesson 11	2	1.2.E 1.1.G
10	Finding the value of a group of coins	Lesson 3	2	1.4.A, 1.4.B 1.1.A
11	Using skip counting to find the value of a group of coins	Lesson 4	2	1.4.A, 1.4.B, 1.4.C 1.1.A

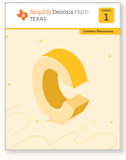
Assessment Resources



- Student Print Assessments
- Answer Keys and Rubrics

Differentiation Resources





Intervention and Extension Resources include:

- Mini-Lessons
- Extensions

Centers Resources includes:

- Centers

Practice

If students need further review or practice with concepts or skills from Unit 5, consider the following resources:

- Lesson Practice (Print and Digital)
- Item Bank (Digital)

Name _____ Date _____

End-of-Unit Assessment

Unit 1.5

For Problems 1–4, write the three-digit number that matches the representation.

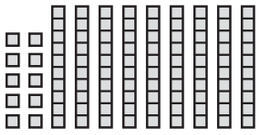
1. 100 + 10 + 8

answer: 118

2. 100 + 7

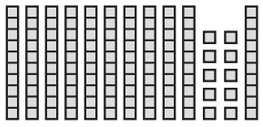
answer: 107

3.



answer: 100

4.



answer: 120

For Problems 5 and 6, write >, <, or = to make the statement true.

5. 99 ___>___ 97

6. 85 ___<___ 88

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Name _____ Date _____

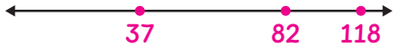
End-of-Unit Assessment (continued)

Unit 1.5

7. What is a number greater than 114? 115

8. Plot the numbers in order on the open number line.

118 82 37



9. Diego purchased 111 plastic army figurines. Jada purchased 101 plastic army figurines. Who purchased more figurines and how do you know?

Sample response shown.

(Diego) Jada

I know Diego purchased more because 111 and 101 both have 1 hundred and 1 one but 111 has a 1 in the tens place and 101 has a 0 in the tens place, so 111 is 10 more than 101.

Name _____ Date _____

End-of-Unit Assessment (continued)

Unit 1.5

10. Han gave Jada 1 quarter, 2 dimes, and 3 pennies. How much money did Han give Jada? Sample work shown.

Show your thinking.

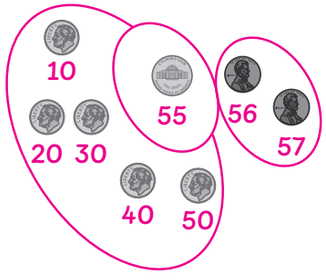


25 + 10 = 35
35 + 10 = 45
45 + 3 = 48

total value: 48 ¢

11. Jada used pennies, nickels, and dimes from her piggy bank to pay for the army figurines. Use skip counting to find the total value of Jada's coins. Sample work shown.

Show your thinking.



total value: 57 ¢

D Differentiation (End-of-Unit Assessment)

To **Strengthen** and **Stretch** students' learning, refer to the differentiation resources suggested throughout this Unit.

Sub-Unit Goals	Problem(s)	Respond to Student Thinking
Sub-Unit 1: Describe the relationship among the coins when counting a collection of pennies, nickels, and dimes.	10, 11	**Support** • **Mini-Lesson:** *Finding the Value of a Group of Pennies, Nickels, and Dimes* (ML 5.03) • **Teacher Move:** Invite students to review the problem and then provide additional opportunities for students to record the value of each coin to aid in skip counting. • **Teacher Move:** Consider revisiting Lesson 2, Activity 2 to review identifying coins, if needed. • **Emergent Bilinguals:** Invite students to use colored pencils to color code keywords, such as quarters, dimes, nickels and pennies, to help make connections. **ELPS 3.E, 3.F**
Sub-Unit 2: Use objects and pictorial models to compose and decompose numbers up to 120 as so many hundreds, so many tens, and so many ones.	1–4	**Support** • **Mini-Lesson:** *Representing the Same Number in Different Ways* (ML 5.09) • **Teacher Move:** Invite students to review the problem and then identify the different representations with language like *expanded form, standard form* or *drawing*. • **Teacher Move:** Consider revisiting Lesson 7, Activity 1.
Sub-Unit 3: Generate a number that is greater than or less than a given number up to 120.	7	**Support** • **Center:** *Get Your Numbers in Order, Two-digit Numbers* • **Teacher Move:** Invite students to review the problem and then share their strategies for generating greater or lesser numbers using place value.
Sub-Unit 3: Compare numbers up to 120 using an understanding of place value, comparative language, and the symbols >, <, or =.	5, 6, 9	**Support** • **Mini-Lesson:** *Comparing Numbers Shown in Different Ways* (ML 5.11) • **Center:** *Greatest of Them All, Two-digit Numbers* • **Teacher Move:** Invite students to review the problems and then provide additional opportunities for students to compare numbers using symbols and language. • **Emergent Bilinguals:** For Problem 9, invite students to review the problem with a partner. Ask them to write a revised draft of their explanations using their primary language and then write a second draft in English. Consider pairing students who speak the same primary language. **ELPS 4.C, 4.D, 4.E, 4.F**

Sub-Unit 3: Order numbers up to 120 using an understanding of place value and open number lines.	8	**Support**
		• **Mini-Lesson:**
		  • *Finding Numbers Greater Than or Less Than a Given Number* (ML 5.12)
		  • *Using Open Number Lines to Order Numbers* (ML 5.13)
		• **Center:** *Get Your Numbers in Order, Two-digit Numbers*
		• **Teacher Move:** Consider revisiting Lesson 13, Activity 1.

Notes: