*i-Ready Classroom Mathematics* lessons consist of three types of sessions: Explore, Develop, and Refine. The following is a walkthrough of the planning and support features within the Teacher's Guide for a Develop session. You will find many of the same features in the Explore and Refine sessions.



**Pacing Guide** session-by-session pacing is used to plan daily instruction and practice.

**Additional Practice** is for use as in-class small group work, after class work, or at-home learning.

Pacing Guide Items marked with are available on the Teacher Toolbox.	MATERIALS	DIFFERENTIATION	
SESSION 1 Explore Comparing The	ree-Digit Numbers (35–50 min)		
<ul> <li>Start (5 min)</li> <li>Try It (5–10 min)</li> <li>Discuss It (10–15 min)</li> <li>Connect It (10–15 min)</li> <li>Close: Exit Ticket (5 min)</li> <li>Additional Practice (pages 357–358)</li> </ul>	Math Toolkit base-ten blocks, blank number lines, hundred charts, hundreds place-value charts Presentation Slides (§	PREPARE Interactive Tutorial S • RETEACH or REINFORCE Hands-On Activity Materials For each student: base-ten blocks, Activity Sheet Hundreds Place-Value Mat S	<b>Prepare</b> students for the lesson content with <i>Interactive Tutorials</i> .
SESSION 2 Develop Ways to Comp	pare Three-Digit Numbers (45–60 min)		<b>Reinforce</b> understanding with <i>Fluency &amp;</i> <i>Skills Practice, Apply It</i> problems, and
<ul> <li>Start (5 min)</li> <li>Try It (10–15 min)</li> <li>Discuss It (10–15 min)</li> <li>Connect It (15–20 min)</li> <li>Close: Exit Ticket (5 min)</li> </ul>	Math Toolkit base-ten blocks, blank number lines, hundred charts, hundreds place-value charts Presentation Slides <b>9</b>	RETEACH or REINFORCE Visual Model REINFORCE Fluency & Skills Practice S • EXTEND Deepen Understanding	differentiated Math Center Activities. Hands-On Activities and Visual Models may also be useful in reinforcing mathematical concepts.
Additional Practice (pages 363–364)			
SESSION 3 Develop More Ways to • Start (5 min) • Try It (10–15 min) • Discuss It (10–15 min) • Connect It (15–20 min) • Close: Exit Ticket (5 min) Additional Practice (pages 369–370)	Compare Three-Digit Numbers (45- Math Toolkit base-ten blocks, blank number lines, hundred charts, hundreds place-value charts Presentation Slides (9)	60 min) RETEACH or REINFORCE Hands-On Activity Materials For each pair: 2 sets of number cards 0–9 from Activity Sheets <i>Digit Cards: 0–9</i> \$; 2 copies of <i>Hundreds Place-Value Mat</i> REINFORCE Fluency & Skills Practice \$ EXTEND Deepen Understanding	<b>Reteach</b> mathematical concepts using Hands-On Activities and Visual Models. Tools for Instruction also provide targeted skills instruction.
SESSION 4 Refine Comparing Three	e-Digit Numbers (45-60 min)		<b>Extend</b> mathematical concents with
<ul> <li>Start (5 min)</li> <li>Monitor &amp; Guide (15–20 min)</li> <li>Group &amp; Differentiate (20–30 min)</li> <li>Close: Exit Ticket (5 min)</li> </ul>	Math Toolkit Have items from previous sessions available for students.	<b>RETEACH</b> Hands-On Activity <b>Materials</b> For each pair: 3 sets of 0–9 number cards and 1 set of >, <, and = cards from Activity Sheets <i>Digit Cards: 0–9</i> ( <b>)</b> ; <i>Three-Digit</i>	Deepen Understanding, Challenge Activities, and Enrichment Activities.
Additional Practice (pages 375–376)	Presentation Slides	Number Cards         REINFORCE         Problems 4–8         EXTEND         Challenge         Materials         For each student: a list of 5–10 cities throughout the United States that are less than 1,000 miles from the town or city in which students live	Optional Add-On: Personalized Instruction resources provide students with opportunities to strengthen grade-level skills by working on their personalized path
			personalized path.
Lesson 14 Quiz S or Digital Comprehension Check		RETEACH Tools for Instruction REINFORCE Math Center Activity EXTEND Enrichment Activity	The Lesson Quiz or Digital Comprehension Check assesses
©Curriculum Associates, LLC Copying is not permitted.		Lesson 14 Compare Three-Digit Numbers 353b	students' progress toward mastery of lesson content and is a way to identify where reteaching is needed.

	Develop	
<b>Purpose</b> provides a roadmap of what students will be learning and doing across the session.	<ul> <li>Purpose</li> <li>Develop strategies for comparing three-digit numbers by place value.</li> </ul>	Develop More Ways to Compare Three-Digit Numbers
	• <b>Recognize</b> that two different comparisons of 2 three-digit numbers can be written to show which of the numbers is greater or less.	Read and try to solve the problem below. These two paintings are in the school art contest. Which painting has more votes?
<b>Start</b> establishes a clear and accessible entry point for each session, engaging students mathematically with prerequisite content. It frequently is an opportunity to have students engage in a math talk.	START CONNECT TO PRIOR KNOWLEDGE	Painting A: 467 votes       Painting B: 463 votes
	Possible Solutions A is the only number with 7 ones. B is the only number with 0 tens. C is the only number with 3 hundreds. D is the only number written as a sum.	TRY IT       Possible student work:       Sample A         Sample A       - base-ten blocks         They have the same number of hundreds and the same number of tens.       - blank number lines         7 ones is greater than 3 ones, so 467 is greater than 463.       - blank number lines         Painting A has more votes.       - undred charts
<b>Develop Academic Language</b> provides language support for all tudents and is especially useful in helping EL students use and produce academic language.	WHY? Support students' understanding of place-value recognition in three-digit numbers.	Sample B 467: 4 hundreds + 6 tens + 7 ones 463: 4 hundreds + 6 tens + 3 ones The number of hundreds and tens are the same. 3 ones is less than 7 ones, so 463 is less than 467. Painting A has more votes. DISLUSS II Ask your partner: Do you agree with me? Why or why not? Tell your partner: I do not understand how
Support Partner Discussion provides teachers with prompts to help	How? During Discuss It, ask students to identify the parts of their partner's solution that they disagree with, and why they think it is incorrect. Ask them to explain why they think it is incorrect, and to suggest how to correct it	DISCUSS IT       SMP 2, 3, 6,         Support Partner Discussion       Encourage students to use the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as they talk to the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, greater than</i> , and <i>less than</i> as the terms <i>digits, digits, greater than</i> , and <i>less than</i> as th
discourse.	I thinkis incorrect because      I would change	<ul> <li>each other.</li> <li>Support as needed with questions such as:</li> <li>How are the two numbers the same? How are they different?</li> <li>How does comparing the digits in the ones place help you to find the greater number.</li> </ul>
Make Sense of the Problem uses a language routine to help students understand the problem. See the Language Routines section	<b>TRY IT</b> <b>Make Sense of the Problem</b> Before students work on Try It, use <b>Co-craft</b> <b>Questions</b> to help them make sense of the problem As students share their questions, ensure they	of votes? Common Misconception Look for students who say that the paintings got the sa number of votes because the digit in the hundreds place and the digits in the tens place of 467 and 463 are the same.
on the Teacher Toolbox (under the Program Implementation tab) for suggestions on how to integrate anguage routines, teacher moves, and conversation tips during instruction.	recognize that Painting A has 467 votes and Painting B has 463 votes.	<ul> <li>Select and Sequence Student Strategies</li> <li>One possible order for whole class discussion:</li> <li>quick drawings to model and compare numbers</li> <li>the digits of each number written in place-value charts to model the comparison</li> <li>each number written in expanded notation to compare the hundreds, tens, and or</li> <li>comparison of the hundreds digits, then the tens digits, and then the ones digits</li> </ul>
	365 Common Misconception identifies misconceptions that le to errors in understanding whic	ead gives a range of possible strategies—from construct to representational to abstract

class discussion as students are prompted to explain their

reasoning.

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discourse. This information can be used to make

decisions about which models and strategies to

share and discuss as a class.

#### Facilitate Whole Class Discussion

Call on students to share selected strategies. After each strategy, allow individual think time for students to process the ideas.

Guide students to **Compare and Connect** the representations. Remind students to explain why they think the idea is incorrect, and to suggest how to correct it if they can.

**ASK** Where does each model show 467? 463? The number that is greater?

LISTEN FOR The models for both numbers show the same number of hundreds and the same number of tens. The digits in the ones place are different. The number with more ones is the greater number.

## **Picture It & Model It**

**If no student presented these models,** have students analyze key features and then point out the ways each model represents:

- 467 votes for Painting A
- 463 votes for Painting B
- a way to identify the greater of the two numbers

**ASK** How do you find the greater number in each model?

**LISTEN FOR** The quick drawing shows a different number of dots, or ones, for the two numbers. The place-value chart shows different numbers in the ones column for the two numbers.

# For showing the numbers in a quick drawing, prompt students to identify where the models for

each number are the same and different.

• Why do the hundreds not help to identify the greater number? Why do the tens not help?

• How do the ones help to identify the greater number?

For modeling the numbers in a chart, prompt students to identify how the place-value chart is used to find the greater number.

• Why are there three columns in the chart?

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• Why are the digits in the hundreds column of the place-value chart the same? The tens column?

#### LESSON 14 DEVELOP

Explore more ways to understand comparing three-digit numbers.

These two paintings are in the school art contest. Which painting has more votes?





Painting A: 467 votes

PICTURE IT



### MODEL IT



### DIFFERENTIATION | EXTEND

Deepen Understanding

When modeling numbers in a chart, prompt students to consider how to compare the numbers by comparing their digits.

ASK What do you compare first to find the greater number? Second?

**LISTEN FOR** First compare the digits in the hundreds place. Then compare the digits in the tens place.

**ASK** How do the hundreds digits in 467 and 463 compare? The tens digits? Which digits will tell you which of the 2 numbers is greater?

**LISTEN FOR** The digit in the hundreds place of 467 and 463 is 4. The tens digit of 467 and 463 is 6. I need to compare the digits for the ones because the other digits are the same.

**Generalize** How can you compare 2 three-digit numbers when the hundreds digits are the same and the tens digits are the same? Listen for understanding that when the number of hundreds and the number of tens are the same, the ones digits must be compared. The number with more ones is greater.

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SMP 6

# **Ask/Listen for** are mathematical discourse questions followed by expected student responses that support and facilitate whole class discussion.

As students share their thinking, the discourse questions can be used to make connections between student approaches and different models and representations, prompt justifications and critiques of approaches and solutions, and check conceptual understanding.

#### **Standards for Mathematical**

**Practice (SMP)** are infused throughout the instructional model.

#### Deepen Understanding is a

consistent opportunity to build conceptual understanding of a key lesson concept by extending mathematical discourse. The content connects a particular aspect of lesson learning to an SMP, showing how it looks in the classroom.

**Monitor and Confirm** 

**Understanding** is a way to ensure that students have made sense of mathematical learning goals.

#### **Facilitate Whole Class Discussion**

provides a series of related discourse questions that illuminate the mathematical ideas of the lesson, prompting students to make connections and use that understanding to solve problems leading to abstract reasoning. These questions help students learn how to articulate a generalization of the mathematical concept.

#### Hands-On Activities occur

consistently at strategic points in the lesson after teachers have acquired understanding of students' learning through observation and their work on questions in the Student Worktext. The activities support students who are unsure of the concept and are an opportunity for small group reteaching while other students work independently. Use of concrete objects lets students access understanding in a different way.

## LESSON 14 | SESSION 3 Develop

#### **CONNECT IT** SMP 2. 4. 5. 7

- Remind students that one thing that is alike about all the representations is the numbers that are being compared.
- Tell students that on this page, they will use those representations to solve the problem.

### **Monitor and Confirm Understanding**

#### 1-2 Check for understanding that:

- there are the same number of hundreds and the same number of tens in 467 and 463
- the ones place is the greatest place with digits that are not equal, so comparing the digits in the ones place will determine which number is greater • the comparison of 467 and 463 can be written two different ways

#### **Facilitate Whole Class Discussion**

3 Be sure students understand that the problem is asking them to explain why there is more than one way to show the comparison of 467 and 463 using a symbol.

ASK How does knowing that 7 is greater than 3 tell vou how 467 and 463 compare?

LISTEN FOR The numbers have the same hundreds and tens, so the number with 7 ones is greater than the number with 3 ones, so 467 > 463.

ASK How does knowing that 3 is less than 7 tell you how 463 and 467 compare?

LISTEN FOR The numbers have the same hundreds and tens, so the number with 3 ones is less than the number with 7 ones, so 463 < 467.

4 Look for the idea that the number that represents more votes corresponds to the greater of 467 and 463, which is 467.

5 Reflect Have all students focus on the strategies used to solve this problem. If time allows, have students share their preferences with a partner.

#### **CONNECT IT**

#### Now you will use the Try It to help you understand more ways to compare three-digit numbers.

- Which place do you need to look at to compare the numbers of votes? Why? You need to look at the or es. The hu same in both numbers.
- Complete two different comparisons of 467 and 463.

#### 463 < 467 467 > 463

- 3 Why can 467 and 463 be compared two ways? Possible answer: If 467 is greater than 463, then 463 is less than 467.
- Which painting has more votes? How do you know? nore votes because 467 is greater than 463.

#### REFIECT

Look back at your Try It, strategies by classmates, and Picture It and Model It. Which models or strategies do you like best for comparing three-digit numbers in different ways? Explain.

Possible answer: I like using a chart to show the ones, tens, and hundreds for

the number. Then it is easier to compare hundreds, then tens, then ones

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SESSION 3 • • • 0

### DIFFERENTIATION | EXTEND

- **Hands-On Activity**
- Use digit cards to show comparisons of three-digit numbers.

If students have difficulty using the > symbol and the < symbol to show comparisons between 2 three-digit numbers, then have them use digit cards to model pairs of three-digit numbers

Materials For each pair: 2 sets of number cards 0–9 from Activity Sheets

- Diait Cards: 0–9 🕓: 2 copies of Hundreds Place-Value Mat 🕓
- Place all digit cards (0-9) face down and have each student draw 3 at random. With place-value mats side by side, ask each student to represent a three-digit number by placing his or her digit cards on a mat.
- Discuss the symbol cards as showing a greater number closest to its "open" side and a lesser number closer to its "pointed" side
- Have pairs compare their three-digit numbers and decide how to place the symbol card between the two place-value mats.
- Repeat the activity several times. Monitor the comparisons that students make. Be sure that they use the < and > symbol cards correctly between the number pairs on their place-value mats.

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**Apply It** solutions at point of use give a correct response with explanations that include multiple approaches to solving the problem.

#### **SESSION 3 • • •** • Apply It • **APPLY IT** For all problems, encourage students to use pictures Use what you just learned to solve these problems. or models to support their thinking. 6 Write > or < to compare each pair of numbers. 6 See Student Worktext page. **a.** 264 < 462 **b.** 372 < 379 **c.** 954 > 950 **7** 772 < 774 and 774 > 772; Students also could f. 653 > 553 **d.** 876 > 867 **e.** 718 **<** 788 use a quick drawing to show hundreds, tens, and Close: Exit Ticket is a quick Write two different ways to compare 772 and 774 using ones for 772 and 774 or write the two numbers < and >. Show your work. formative assessment of each day's in expanded form to compare hundreds, tens, Possible student work learning and serves as an indicator and ones. of students' progress toward mastery Hundreds Tens Ones CLOSE EXIT TICKET + or partial mastery of the learning goal 7 2 8 B, C; Students could write the numbers in 4 of the session. 7 7 a place-value chart or use base-ten blocks or I compare digits in each place. 774 is the greater number, which means 772 is the lesser number. This is the last question on the Student quick drawings to check the comparisons. Worktext page. Students' solutions should indicate Solution 772 < 774, 774 > 772 understanding that: 8 Noel and Sara make origami animals. Noel • when 2 three-digit numbers have the same hundreds and tens digits, the comparison of makes 189 animals. Sara makes 186 animals. the ones digits will tell which number is Choose all the correct comparisons. greater and which number is less ▲ 189 < 186</p> • when 2 three-digit numbers are not equal, (B) 186 < 189</p> there are two ways to show how they © 189 > 186 compare by using the < and > symbols. D 186 > 189 Error Alert If students chose A, D, or E, then E 186 = 189 remind them the opening in the > or < sign is always next to the larger number and that 368 for 2 three-digit numbers to be equal, they have to have the same number of hundreds, tens, and ones. Error Alert gives insight into misconceptions that can lead to errors in calculation and provides on-the-spot remediation.

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Lesson 14 Compare Three-Digit Numbers

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**Additional Practice** can be used as in-class small group work, after class work, or at-home learning.

**Solutions** are labeled as *Basic*, *Medium*, and *Challenge* to show the relative difficulty level in relation to the questions at hand or the standard in question. Use these to support independent practice or differentiation as needed.

## LESSON 14 | SESSION 3 ■■■□ Additional Practice

### **Problem Notes**

Assign **Practice Comparing Three-Digit Numbers** as extra practice in class or as homework.

See student page.
Basic



Possible answer: I had to compare the ones because the hundreds and tens digits are the same in both numbers. Basic

# Practice Comparing Three-Digit Numbers

Study the Example showing how to compare three-digit numbers. Then solve problems 1–8.

Name:



Which place did you have to look at to compare 142 and 147? Why? Possible answer: I had to compare ones. The hundreds and tens are the same in both numbers.

Learning Games

700m

Interactive Practice

**Cumulative Practice** 

from previous units, as needed.

i-Ready Personalized Instruction

as needed.

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LESSON 14 SESSION 3

**Fluency & Skills Practice** provides ongoing opportunities for students to accurately, flexibly, and efficiently practice mathematical procedures and operations. This can be used as in-class small group work, after-class work, or at-home learning. Student pages are available in the optional Fluency and Skills Practice Book or on Teacher Toolbox. Download PDFs or editable versions, or assign to any LMS, including Google Classroom.

#### **Fluency & Skills Practice**

# Assign More Ways to Compare Three-Digit Numbers 🔕

In this activity students practice comparing 2 three-digit numbers using the symbols >, <, or =. Many of the number pairs being compared share one or more digits in common. Comparing numbers like these develops the skill of attending to the place value of each digit with precision. Students may use this skill in real-world situations, such as comparing distances between cities or scores in a basketball game.



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Lesson 14 Compare Three-Digit Numbers

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Bounce

Assign your students additional digital practice,

Assign Cumulative Practice to review major content

A personalized instruction path helps students

reinforce prerequisites and build grade-level skills.

## **Additional Practice Opportunities**

include digital Learning Games, Interactive Practice, Cumulative Practice, and i-Ready Personalized Instruction.



Have them turn to a partner to find the least number they can make. Then have partners share with other pairs and compare their ideas. Have partners compare their number to Cris's number in the problem. Then have students use yes or no to answer the question and explain in writing using one of the sentence frames:

- Yes. The least number Cris can make is \_\_\_\_
- No, because the number \_\_\_\_\_ is less than Cris's number.

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partner to find the least number they can make. Have partners compare their number to Cris's number in the problem and discuss which number is less. Then have pairs respond in writing using the sentence frame:

- The least number Cris can make is
- because Encourage students to explain their ideas using hundreds, tens, ones, less, more.

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Have them find the least number they can

problem and discuss which number is less.

since when explaining their thinking. Once

complete, have students share with their

partners to compare their responses.

Instruct students to respond in writing

make. Then have students work with a partner

to compare their number to Cris's number in the

independently. Remind them to use because or

**DIFFERENTIATION | ENGLISH** 

**LEARNERS** helps teachers scaffold or amplify language in the next session so English learners can access and engage with grade-level mathematics.