

TEACHER'S GUIDE **Overview** *continued*

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.

Lesson Overview provides information for use in planning whole class instruction, small group differentiation, and independent learning opportunities.

Student Learning Target uses friendly language to set expectations for what children will be able to do by the end of the lesson.

Content Objectives identify the mathematical learning goals for the lesson, while **Language Objectives** indicate the language children are expected to understand and produce as they work on those goals.

Prior Knowledge identifies key skills children will build on during the lesson and presents opportunities to monitor understanding and identify children's learning needs.

Math and Academic Vocabulary are initially introduced using the **Vocabulary Routine**, and then explored in the context of the lesson. Children revisit vocabulary at the end of the unit using the **Build Your Vocabulary** page.

OVERVIEW

LESSON 8

Make a Ten to Add

STUDENT LEARNING TARGET: Break apart a number to make a ten. Use this strategy to add.

Lesson Objectives

Content Objectives

- Understand that breaking apart numbers and putting them together in a new way does not change the value.
- Understand that 10 is a useful benchmark that makes adding easier.
- Consider making a ten when choosing a strategy to add.
- Begin to think of make a ten as a mental math strategy.

Language Objectives

- Explain how to add two numbers by breaking them apart and putting them together using the strategy of making a ten.
- Use a number bond to show, in writing, how numbers are broken apart to change one addend to 10.
- Demonstrate listening carefully to a speaker by asking questions to learn more.

Prior Knowledge

- Know the partner that makes 10 for any number.
- Decompose numbers within 10.
- Understand that teen numbers can be decomposed as "10 and some more."

Vocabulary

Math Vocabulary

- **make a ten** a strategy that uses numbers that add to ten.

Review the following key term.

- **addend** a number being added.

Academic Vocabulary

- **model (noun)** pictures or objects that show a situation.
- **model (verb)** to show a situation with pictures or objects.

Math Focus

Focus Standards

1.OA.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as **counting on**; making 10; decomposing a number leading to a ten; **using the relationship between addition and subtraction**; and creating equivalent but easier or known sums.

See Unit 2 Overview for developing and applied standards.

Standards for Mathematical Practice (SMP)

SMP 1, 2, 3, 4, 5, and 6 are integrated into Try-Discuss-Connect.*

This lesson provides additional support for:

- 5** Use appropriate tools strategically.
- 7** Look for and make use of structure.
- 8** Look for and express regularity in repeated reasoning.

* See page 1s to learn how every lesson includes these SMP.

181a Lesson 8 Make a Ten to Add

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Learning Progression sets context for the mathematics of the lesson, providing information on how the context fits within and across grade levels—what children previously learned, what they are learning now, and what they will be learning next.

Learning Progression

Previously

In Kindergarten, children learned to compose and decompose numbers to 10, and they gained an understanding of adding and subtracting within 5. Earlier in Grade 1, children extended their understanding of these operations, using a variety of strategies to add and subtract within 10, progressing toward fluency. They also came to understand teen numbers as “10 and some more.”

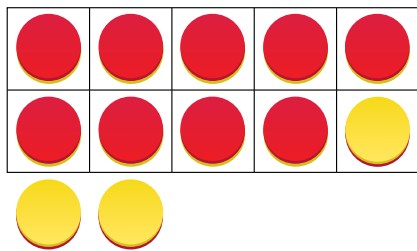
IN THIS LESSON

Children learn the strategy of making a ten to add within 20. This builds on their work with combining three addends in the previous lesson. As children decompose one addend and associate one part of it with the other addend to make a ten, they make strategic choices about their decompositions. Children also continue to develop the idea that a teen number is “10 and some more,” helping to reinforce their mental math skills and progress them toward fluency.

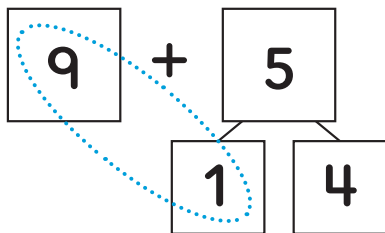
Later

In the next lesson, children build on the strategy of making a ten to use a ten to subtract as they subtract one-digit numbers from teen numbers. Later in Grade 1, making a ten is a useful strategy when working beyond teen numbers to add and subtract one- and two-digit numbers within 100. In Grade 2, children work to become fluent with addition and subtraction within 20.

THIS LESSON AT A GLANCE



Using a 10-frame to think about $9 + 3$ as $10 + 2$, or 10 and some more, helps build mental math skills when adding.



Number bonds show how numbers are broken apart to change one addend to 10, making them simpler to add mentally.

This Lesson at a Glance provides a visual representation of the lesson progression.

TEACHER'S GUIDE **Overview** *continued*

LESSON 8 OVERVIEW

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

Assessment is used to determine children's progress and inform instructional decisions. Teachers can choose pencil and paper and digital options.

Centers, Differentiation, and Practice time is built into the lesson pacing to help teachers meet children's individual needs.

Materials list helps teachers prepare the manipulatives and resources children can use during the lesson activities.

Presentation Slides include key visuals and questions to support the delivery of each lesson.

Pacing Guide

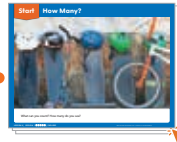
• Individual •• Pairs ••• Small Group •••• Whole Class

SESSION 1 EXPLORE	SESSION 2 DEVELOP	SESSION 3 DEVELOP	SESSION 4 REFINE	SESSION 5 REFINE
Number Sense (10 min) How Many? ••	Number Sense (5–10 min) Quick Images ••	Number Sense (5–10 min) Show It Another Way ••	Number Sense (5–10 min) Which One Doesn't Belong? ••	Number Sense (5–10 min) Data Talk ••
Discover It (15–20 min) ••	Try-Discuss-Connect (20 min) Try It ••• Discuss It ••• Model It ••• Connect It •••	Try-Discuss-Connect (20 min) Try It ••• Discuss It ••• Model It ••• Connect It •••	Make Connections (20 min) ••	Analyze It (10 min) ••
Investigate It (15–20 min) •••	Apply It (10 min) ••	Apply It (10 min) ••		Assessment (10 min) • Lesson Quiz or Comprehension Check
Build Concepts (10–15 min) ••••	Centers, Differentiation, and Practice (15–25 min) ••••	Centers, Differentiation, and Practice (15–25 min) ••••	Centers, Differentiation, and Practice (15–25 min) ••••	Centers, Differentiation, and Practice (25–35 min) ••••
Close (5 min) ••	Close (5 min) ••	Close (5 min) ••	Close (5 min) ••	Close (5 min) ••

What You Need

Presentation Slides

Slides are available to support all parts of the lesson.



Math Toolkit

Make available for use at any time in the lesson:

- Two-color counters
- 10-Frames Workmat
- Number Bonds Workmat

Digital Math Tools

- Counters and
- Connecting Cubes

Materials

SESSION 1

- Counters (20 per pair)
- Number cubes 1 to 6 (1 per pair)
- Chairs (10 per class)
- 10-Frames Workmat (1 per pair)

SESSION 2

- Counters (20 per pair)
- Number cubes 4 to 9 (1 per pair)
- 10-Frame Cards 6 to 9 (1 per pair)

- 10-Frames Workmat (1 per pair)

SESSION 3

- Counters (20 per pair)
- Number cubes 4 to 9 (1 per pair)
- Number Bonds Workmat (1 per pair)

SESSION 4

- Counters (20 per child)

SESSION 5

- Counters (20 per child)

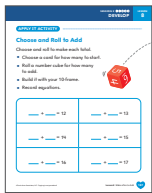
Centers, Differentiation, and Practice

CENTERS | Student-Led Practice

Session Centers: Each Apply It activity can be continued as a student center and repeated as needed in later sessions. Slides and additional printable workmats are available.

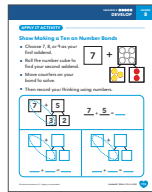
SESSION 2

Choose and Roll to Add
Model making a ten to add with counters and a 10-frame.



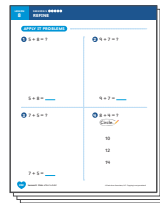
SESSION 3

Show Making a Ten on Number Bonds
Model making a ten to add with a number bond.



SESSIONS 2, 3, 4, 5

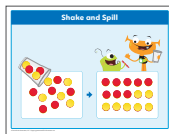
Apply It Problems
See making a ten to add in different ways.



Centers Library: Reinforce skills, review, and build fluency.

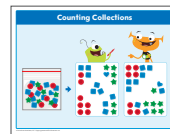
SKILL REVIEW Shake and Spill Card 1

Reinforce addition for 10.



FLUENCY Counting Collections Card 11

Reinforce counting up to 40 objects.



DIFFERENTIATION | Teacher-Led Small-Group

Meet the needs of each and every child through teacher-led small groups. **RETEACH** and **EXTEND** options are provided for each Session Center.

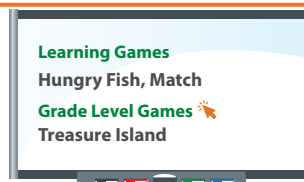
INDEPENDENT PRACTICE

Session Practice: in the Student Worktext

Fluency and Skills Practice: available on Teacher Toolbox

Interactive Practice: assignable through i-Ready Connect

i-Ready Personalized Instruction



Student-Led Centers

Session Centers extend children's work with the Apply It activities begun during the Develop and Refine sessions.

Centers Library is a set of repeatable centers that provide opportunities for children to practice and review key skills and develop fluency. Two centers from the library are recommended to accompany each lesson and can be used in any session.

Additional Practice options include Student Worktext practice pages, *Fluency and Skills Practice*, digital practice, and digital games.

Optional Add-On: Personalized Instruction resources provide children with opportunities to strengthen grade-level skills by working on their personalized path.

TEACHER'S GUIDE **Overview** *continued*

Purpose provides a roadmap of what children will be learning and doing throughout the session.

Start: Number Sense activities provide daily opportunities for children to talk about numbers and relationships, develop understanding of number, and use numbers and operations flexibly.

Counting Routines provide children with engaging opportunities to practice rote counting daily.

DIFFERENTIATION | English Learners helps teachers scaffold or amplify language for a specific activity so English learners can access and engage with grade-level mathematics.

LESSON 8

SESSION 3 DEVELOP

Purpose

- **Develop** efficiency in breaking apart an addend into two parts to make a ten.
- **Recognize** that a number bond can show how to decompose a number.

How can you show it another way?

START

Number Sense Show It Another Way

Show the slide.

ASK: How can you show the number another way?

- Encourage children to use materials, drawings, or equations.
- Have children turn and talk about how they showed the number.
- Listen and look for a variety of solutions for whole class sharing.

Facilitate Whole Class Discussion

- What number did you show? How did you show it?
- How is your partner's way the same as or different from yours?

Start Show It Another Way

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How can you show the number another way?

LESSON 8 | SESSION 3 | DEVELOP

LISTEN AND COUNT With the class in three groups, have the groups take turns saying each consecutive number as they count forward from 1 to 20 and then backward from 20 to 0.

DIFFERENTIATION | English Learners Use with Apply It

Levels 1–3 Speaking/Writing

Prepare children to participate in whole class discussion. Point to the two addends and guide children to record these numbers in the equation. Help them talk about making a ten:

- Break apart ____ into ____ and ____.
- Add ____ and ____ to make a ten.

Encourage children to point as they speak, demonstrating with counters for support. If needed, reword children's ideas and have them repeat.

Levels 2–4 Speaking/Writing

Support children in sharing their process in whole class discussion. Help children explain their steps using sentence frames:

- First, I chose ____ for the first addend.
- Next, I broke ____ into ____ and ____ because ____.
- Then I ____ to find the total.

Encourage children to look at their number bond as they explain.

Levels 3–5 Speaking/Writing

Guide children in sharing their process in whole class discussion. **SAY:** When we explain how to do something, it helps the listener if we tell our steps in order. **ASK:** What words help you tell the order of your steps? Record ideas on the board such as first, next, then, last, and after. Have children use the terms as they explain their process. If needed, review the meaning of *make a ten* by looking back at Build Concepts in Session 1.


Math Toolkit provides options of hands-on materials and visual models for children to strategically use as needed.

Make Sense of the Problem uses a language routine to help children understand the problem. See the Integrating Mathematics and Language section on the Teacher Toolbox (under the Program Implementation tab) for tips on integrating language routines, teacher moves, and conversation tips during instruction.

Support Partner Discussion provides teachers with prompts to help children engage in meaningful peer discourse.

Select and Sequence Strategies gives a range of possible strategies—from concrete to representational to abstract—for use in monitoring children's work and facilitating discourse. This information can be used to make decisions about which models and strategies to share and discuss as a class.

MATERIALS

- Math Toolkit 
- Two-color counters
- 10-Frames Workmat
- Number Bonds Workmat

Try-Discuss-Connect

How can you use number bonds to show making a ten to solve problems?

Try It | SMP 1, 2, 4, 5, 6

Read the problem aloud:

*9 blocks are small. 4 blocks are big.
How many blocks are there? How do you know?*

Make Sense of the Problem

Use **Three Reads** to help children work together to identify what they need to know and find. Have children work independently on Try It.

Discuss It | SMP 2, 3, 6

Support Partner Discussion

After children have worked independently on Try It, have them respond to Discuss It with a partner. If children need support in getting started, prompt them to ask each other questions such as: *Did you use a drawing or a model to help you solve the problem? Why?*

Common Misconception If children think that they can only count on from the greater addend, **then** provide practice using 10-frames and counters to help them see that they could also count on from the lesser addend, fill the 10-frame, and find the same total.

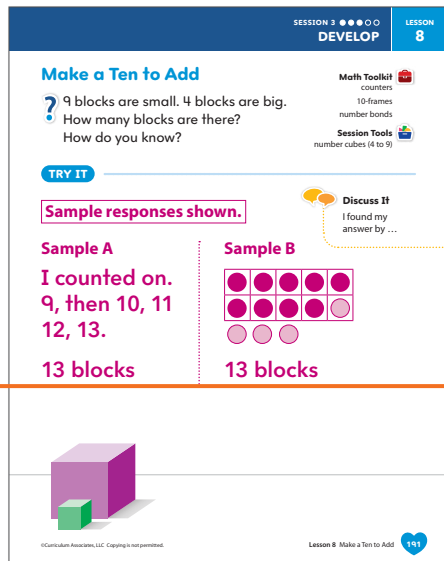
Facilitate Whole Class Discussion

Have selected children share their strategies in the order you have decided on. Ask children to reword statements using *make a ten* when appropriate.

ASK How does [child name]'s strategy show finding $9 + 4$?

LISTEN FOR children to note strategies such as using fingers or counters to count all, counting on from either addend, or making a ten.

Guide children to **Compare and Connect** the strategies.



The screenshot shows the lesson content for 'Make a Ten to Add'. It includes the problem text: '9 blocks are small. 4 blocks are big. How many blocks are there? How do you know?'. Below this is a 'TRY IT' section with 'Sample responses shown'. Sample A says 'I counted on. 9, then 10, 11, 12, 13. 13 blocks'. Sample B shows a 10-frame with 9 small circles and 4 large circles, totaling 13 blocks. A 'Discuss It' prompt asks 'I found my answer by...'. At the bottom, there is a 3D model of blocks and a copyright notice for Curriculum Associates, LLC.

Select and Sequence Strategies

One possible order for whole class discussion:

- Counting all
- Counting on
- Making a ten

Develop Academic Language

Why? Help children use an *-ing* word to complete the Discuss It prompt.

How? Tell children that they can explain how they did something using the phrase *plus an action word ending in -ing*. Encourage them to listen for the word that comes after *by* as you model sentences such as:

- I learn by reading books.*
- I got home by walking fast.*
- We won by playing as a team.*

Ask children what they noticed. If needed, point out that the words after *by* all end in *-ing*. Encourage children to use *-ing* words to complete *I found my answer by _____*.

Develop Academic Language supports all children—including ELs—in learning, understanding, and using academic language at the word, sentence, and discourse levels.

TEACHER'S GUIDE **Overview** *continued*

LESSON 8
SESSION 3
DEVELOP

Model It | SMP 2, 7, 8

If no child presented the model shown on the Student Worktext page, connect the number bond to the children's models by having them identify how they both represent the problem.

ASK *How else could you break apart the 4? Why do you think it was broken into 1 and 3?*

LISTEN FOR children to note that 4 can also be decomposed into $2 + 2$ or $0 + 4$, but they need a 1 in order to make a ten with the first addend (9).

ASK *Why are the 9 and 1 circled in the number bond?*

LISTEN FOR children to identify that 9 and 1 make a ten.

Connect It | SMP 2, 4, 5

Facilitate Whole Class Discussion

Help children look at what they drew or wrote to solve the problem and compare it to the 10-frame and number bond in **Model It**. Help children make sense of different ways to show making a ten to add by comparing the 10-frame and number bond to their own strategies and models. After individual think time, have children share and discuss their ideas. Children may also use pictures, numbers, or words to record ideas.

ASK *How did you show 9, 4, and the total? How is your model or strategy like Model It?*

LISTEN FOR descriptions of how children showed the addition of 9 and 4 to get 13. If they broke apart 4, have children explain how they did so and how it helped them; for instance, they may say they broke apart 4 into 1 and 3, because $9 + 1 = 10$ and $10 + 3 = 13$.

Model It | SMP 2, 7, 8

9 blocks are small, 4 blocks are big. How many blocks are there? How do you know?

MODEL IT

1 Find $9 + 4$.

Break apart 4. Make a ten. Add 3.

$9 + 4 = 10 + 3$

$9 + 4 = 13$

There are 13 blocks.

CONNECT IT

Discuss, draw, or write.

2 How is your way like **MODEL IT**? How is it different?

Children may say they started with 9 like Model It but counted on 10, 11, 12, 13 to find the total, while Model It broke apart the 4 and added 9 and 1 to make a 10.

Sentence Frames provide language support to children as they explain their strategies, make connections, or justify their thinking.

Sentence Frames

To support children comparing models when speaking or writing:

- I showed ____ using ____.
- My model is like Model It because ____.

Error Alert draws attention to frequently made errors in procedure or calculation and provides on-the-spot remediation.

Error Alert

If children make a ten but write the total as 3, then provide additional hands-on support with 10-frames and counters. Have children find the total by counting on from 9 and then by making 10.

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MATERIALS
(per pair)Two-color counters
(20)Number cubes 4 to 9
(1)Number Bonds Workmat
(1)Show Making a Ten on
Number Bonds Workmat
(1)**Preparation:** Cover the numbers 1, 2, and 3 on the number cubes with stickers and write 7, 8, and 9 on the stickers.**Sentence Frames**

To support children explaining their thinking when speaking or writing:

- I thought about _____.
- I broke apart _____.

APPLY IT | SMP 2, 7, 8**Show Making a Ten on Number Bonds**

How can you use number bonds to help you show making a ten to add?

This activity guides children to connect concrete and symbolic representations of making a ten to add 2 one-digit numbers.

- Tell children they will use number bonds to model the strategy of making a ten. Point out the example problem and blanks to record equations.
- Distribute number bonds, number cubes, and counters to pairs.
- Explain that they will choose 7, 8, or 9 as their first addend. Then they will roll the number cube to find their second addend.
- Review the example problem showing the number bond. Have children use their counters to model the addition problem using the bond. Have them break apart the second addend by moving counters from the top box to the bottom two boxes. Then they can make a ten by adding one part of their second addend to their first addend.
- Have children model and solve their own problems and then complete the number bonds and equations at the bottom of the *Student Worktext* page.

Facilitate Whole Class Discussion

Guide children to share their understanding of showing how to make a ten using a number bond.

ASK How did the number bond help you show ten and some more ones?**LISTEN FOR** children to explain how they can show breaking apart the second addend to change the first addend into a ten. Then they can find the total by thinking about ten and some more ones.

Sample responses shown. SESSION 3 ●●●○○ DEVELOP LESSON 8

APPLY IT ACTIVITY

Show Making a Ten on Number Bonds

- Choose 7, 8, or 9 as your first addend.
- Roll the number cube to find your second addend.
- Move counters on your bond to solve.
- Then record your thinking using numbers.

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Apply It Activities are repeatable tasks that are introduced during whole class instruction and can be continued as centers.

Facilitate Whole Class

Discussion provides questions and facilitation moves that help teachers guide discussions that illuminate the mathematical ideas of the lesson. Connect It questions prompt children to make connections among representations or solutions and to articulate a generalization of the key mathematical concept in the lesson.

ASK/LISTEN FORs are mathematical discourse questions followed by expected responses that support whole class discussion.

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

TEACHER'S GUIDE **Overview** *continued*

LESSON 8
SESSION 3
DEVELOP

Centers, Differentiation, and Practice

CENTERS | Student-Led Practice

Apply It Problems

APPLY IT PROBLEMS

Complete the number bonds to make a ten. Then solve.

<p>1 Find $9 + 2$.</p> <div style="text-align: center;"> </div> <p>$9 + 2 = 10 + \underline{1}$</p> <p>$9 + 2 = \underline{11}$</p>	<p>2 Find $7 + 9$.</p> <div style="text-align: center;"> </div> <p>$7 + 9 = \underline{16}$</p>
<p>3 Find $8 + 5$.</p> <div style="text-align: center;"> </div> <p>$8 + 5 = \underline{13}$</p>	<p>4 Find $6 + 5$.</p> <div style="text-align: center;"> </div> <p>$6 + 5 = \underline{11}$</p>

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These problems are an opportunity for guided or center-based practice. As children work, remind them to use the number bonds to show how to make a ten. Make tools from the Math Toolkit available.

Session Centers

Show Making a Ten on Number Bonds
Children strengthen understanding that number bonds can be used to show how to decompose a number to make a ten and find totals.

Centers Library
SKILL REVIEW: Shake and Spill
FLUENCY: Counting Collections

DIFFERENTIATION | Teacher-Led Small Group

Differentiate in small groups to support needs observed during the Apply It activity.

RETEACH
Use with children who need additional support with the idea of making a ten to add.

Materials: two-color counters (20 per child), Number Bonds Workmat

- Using paper or whiteboards, have children write the problem $8 + 6$ with a blank number bond below the 6.
- Ask children how they can make a ten with the 8 to make adding easier. Have them fill in the first small box of the number bond to show the number partner that makes a ten with 8. [2]
- Prompt children to circle the 8 and 2 to show that the numbers make a ten.
- Display 6 counters and ask children what they represent. [the addend 6 in $8 + 6$] Take 2 counters away, and ask children what this action means. [taking 2 away from 6 so it can be used to make a ten when added to 8]
- Ask: *What is left of the 6?* [4] Discuss how 4 is related to the missing part of the number bond, and have children write 4 in the second small box of the bond.
- Summarize by asking children to describe how they used an addition problem with 10 to find $8 + 6$.
- Repeat with other similar problems.

EXTEND
Use with children who have demonstrated the ability to make a ten to add.

Materials: number cubes with numbers 4 to 9 (5 per group)

- Have children work together to roll all five number cubes and choose three of the numbers as addends. Then have them write an addition problem with the chosen numbers, for example, $4 + 7 + 8$.
- Ask children to rewrite the problem by making a ten from two of the addends in as many ways as they can, for example, $10 + 1 + 8$, $4 + 10 + 5$, and $10 + 7 + 2$.
- Have children discuss how they made a ten in each problem.

Reteach mathematical concepts using the teacher-led activity with children who need additional support.

Extend mathematical concepts with the teacher-led activity for children who demonstrate proficiency.

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Digital Practice

Learning Games: Hungry Fish, Match

i-Ready Personalized Instruction

INDEPENDENT PRACTICE

Student Worktext

NAME: _____

SESSION 3 ●●●○○ PRACTICE LESSON 8

Look at the Example. Then solve Problems 1-6.

Example Find $7 + 5$.

$7 + 5 = 10 + 2$
 $7 + 5 = 12$

1 Find $5 + 8$.

$5 + 8 = 10 + 3$
 $5 + 8 = 13$

2 Find $9 + 6$.

$9 + 6 = 10 + 5$
 $9 + 6 = 15$

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LESSON 8 SESSION 3 ●●●○○ PRACTICE

3 Find $9 + 5$.

$9 + 5 = 14$

4 Find $7 + 6$.

$7 + 6 = 13$

5 Find $7 + 4$.

$7 + 4 = 11$

6 Complete the number bond and equation.

$9 + 7 = 16$

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Independent Practice options include Student Worktext practice pages, *Fluency and Skills Practice*, digital practice, and digital games.

Fluency and Skills Practice 🐟

Making a Ten to Add

CLOSE

Read the problem. Provide children with 10-frames, counters, and number bonds. Have children complete the equations.

LISTEN FOR children's ability to make a ten by decomposing 7.

Solution: $6 + 7 = 10 + 3$; $6 + 7 = 13$

Close

Find $6 + 7$.

$6 + 7 = 10 + \underline{\quad}$

$6 + 7 = \underline{\quad}$

Math Skills (grades 1-5) ©Curriculum Associates, LLC

Close prompts are provided at the end of each session to invite children to reflect on the math of the lesson, as well their own learning habits.