Language Routines *continued*

Co-Craft Questions and Problems

WHEN TRY IT *Optional*

WHAT This routine provides an alternative to the *Three Reads* routine. It provides the opportunity for students to think about the mathematical implications of a context before solving a specific problem or to create a problem from a representation. Additionally, it gives students the chance to explore mathematical relationships within that context, potentially leading to the creation of their own questions and answers, and allows them to produce the language of mathematical questions.

WHY When given the time and space to "mathematize" a situation, students extend their understanding of the context and potentially uncover implicit relationships among quantities. This, in turn, encourages students to generate their own questions, which results in a more complete grasp of the context. It also offers multiple points of entry into the problem for students.

HOW The teacher presents a problem situation with no specific question offered or provides a mathematical representation with no context. Students work independently or in small groups to develop questions or problems that could be answered or represented by the information, with a focus on connecting the language to the mathematics.

Turn and Talk

WHEN TRY IT DISCUSS IT CONNECT IT

WHAT A "talk move" that provides time for students to practice articulating their thoughts and listen to another's ideas before potentially sharing with the larger group.

WHY *Turn and Talk* allows students to preview ideas with a partner, helps bring out varied approaches and points of view, and may help surface misconceptions. It ensures that all students are engaged, particularly those who are reluctant to volunteer in a large group.

HOW The teacher provides the class with a question or discussion prompt and directs students to "turn and talk" to a partner while the teacher moves about the room to listen, assess, and note interesting points of discussion. The teacher may then call on one or more groups to share their ideas.

Compare and Connect

WHEN DISCUSS IT

WHAT A routine to identify, compare, and contrast mathematical language, representations, models, and approaches.

WHY When students are provided with the opportunity and time to compare, make connections between, and reflect on mathematical ideas, their meta-awareness increases, understandings are solidified, and mathematical discourse is supported.

HOW The teacher carefully selects and sequences student strategies and representations, following the suggestions in the Teacher's Guide if applicable. Students have time to process and discuss similarities and differences in pairs, small groups, and in whole class discussions. The teacher asks specific questions to help students recognize connections between the strategies and formulate important generalizations.

Say It Another Way

WHEN DISCUSS IT CONNECT IT

WHAT A "talk move" used to help students make sense of unfamiliar written or spoken language. Similar to the "Four R's": Restate, Rephrase, Reword, and Record.

WHY When *Say It Another Way* is a classroom routine, students know that they are expected to listen actively and reflect on their classmates' deliberations, as they are expected to regularly restate discussion points. The routine also serves to help students gain a clearer understanding of potentially misperceived concepts as students clarify peer language and contribute to mathematical discourse.

HOW As students share their ideas in whole class or small group discussions, the teacher regularly asks for other students to "say it another way," particularly if the language is complex, ambiguous, or the notion is incomplete. Students must use their own words to reproduce and/or clarify the idea. The teacher asks the original speaker to decide whether the restatement is accurate, or to work collaboratively to come up with an accurate restatement.

Collect and Display

WHEN DISCUSS IT CONNECT IT

WHAT A routine that enables teachers to collect and organize students' oral language in order to increase sense making and support academic language development.

WHY When teachers record student language and facilitate connection-making, students develop precise academic vocabulary. The display that is created becomes a reference for students to turn to when they talk or write about mathematics in the future.

HOW The teacher collects students' informal oral language during partner, small group, and whole class discussions. He or she organizes the words and key phrases, adds diagrams or pictures where necessary, and helps students explicitly connect them to academic language. Collected output is displayed for future reference, and can be updated and revised as needed.

Student Lesson Walkthrough

Lessons consist of three different types of sessions: Explore, Develop, and Refine. The following is a walkthrough of a Develop session. Through this walkthrough we are outlining the role of both the student and the teacher with respect to the Try–Discuss–Connect instructional routine.

Research says . . .

> Effective teaching of mathematics consistently provides students, individually and collectively, with opportunities and supports to engage in **productive struggle** as they grapple with mathematical ideas and relationships.

—NCTM, 2014

TRY IT (Whole Class and Individual)

Student's Role

- Students work together as a class to make sense of the problem and then persevere on their own to develop strategies to address the problem. During this time, students may choose appropriate tools and manipulatives as part of their strategies, as applicable.

Teacher's Role

- Teachers facilitate a class discussion that supports all students in understanding the context of the problem and what they are asked to do, without discussing solution strategies.
- Teachers encourage students to persevere and try more than one solution strategy while they work independently.
- Teachers circulate the room and begin to select a few students' strategies for the whole class discussion.

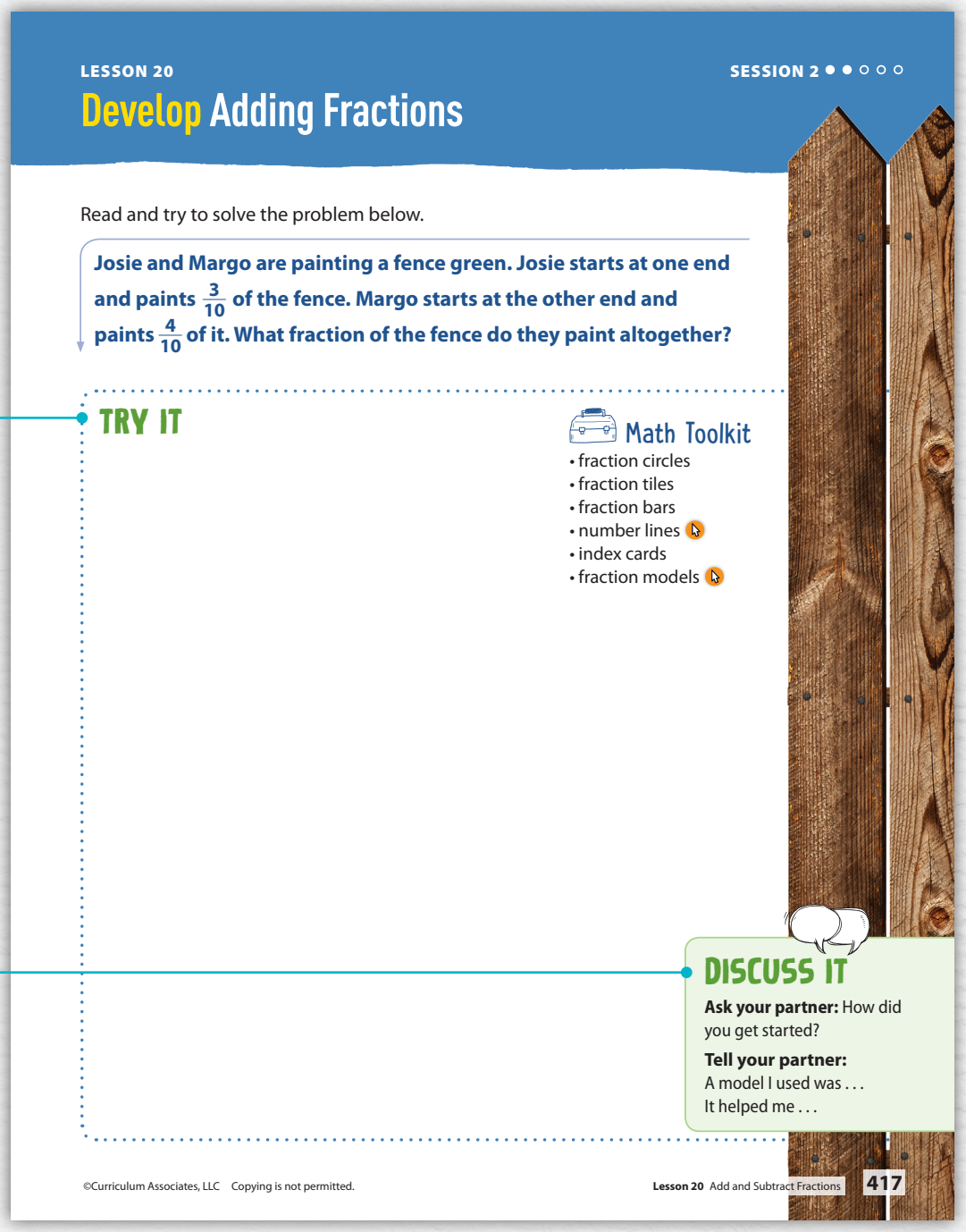
DISCUSS IT (Partner)

Student's Role

- Working in pairs, students explain and justify their strategies and solutions to each other and listen to and critique each other's reasoning. As they are challenged to justify their thinking, they gain experience in providing logical explanations and refining understanding.

Teacher's Role

- Teachers listen in on partner conversations, without intervening, as they select and sequence a few students' strategies to share with the class. They are also able to identify incomplete or not yet acquired understandings and misconceptions that can be addressed in whole class discussion.



LESSON 20 SESSION 2

Develop Adding Fractions

Read and try to solve the problem below.

Josie and Margo are painting a fence green. Josie starts at one end and paints $\frac{3}{10}$ of the fence. Margo starts at the other end and paints $\frac{4}{10}$ of it. What fraction of the fence do they paint altogether?

TRY IT

Math Toolkit
- fraction circles
- fraction tiles
- fraction bars
- number lines
- index cards
- fraction models

DISCUSS IT

Ask your partner: How did you get started?

Tell your partner:
A model I used was . . .
It helped me . . .

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Research says . . .

"The mathematical practices call on students to make sense of, connect, model with, and use as tools **a range of** concrete and abstract **mathematical representations**. This offers multiple entry points for students with different processing strengths."

— Creighton et al., 2016

Explore different ways to understand adding fractions.

Josie and Margo are painting a fence green. Josie starts at one end and paints $\frac{3}{10}$ of the fence. Margo starts at the other end and paints $\frac{4}{10}$ of it. What fraction of the fence do they paint altogether?

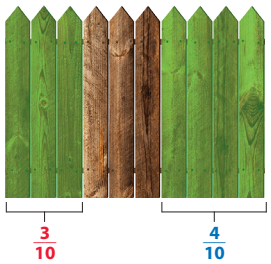
PICTURE IT

You can use a picture to help understand the problem.

Think what the fence might look like if it has 10 equal-sized parts.

Each part is $\frac{1}{10}$ of the whole.

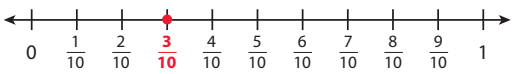
The girls paint 3 tenths and 4 tenths of the fence.



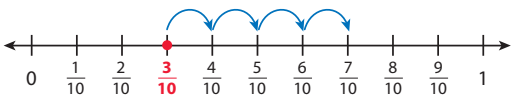
MODEL IT

You can also use a number line to help understand the problem.

The number line below is divided into tenths with a point at $\frac{3}{10}$.



Start at $\frac{3}{10}$ and count 4 tenths to the right to **add** $\frac{4}{10}$.



DISCUSS IT (Whole Class)

Student's Role

- As selected students explain their strategies, others listen to and critique the reasoning of the models and representations presented. Students may turn and talk to a partner at critical points in the explanation to allow themselves time to process ideas and solidify understanding.
- Students are then guided to make sense of the representations in the *Model It*. Once they understand what is shown in the Worktext, students make connections between these strategies and the student work discussed earlier.

Teacher's Role

- Teachers ask questions at key moments in students' explanations that allow the class to process what has been said and all students to attend to precision in language and mathematical thinking. After students analyze the strategies in the Student Worktext, the teacher guides them to make connections between the strategies discussed in class and those in the worktext.
- Students are prompted to justify their reasoning and develop a conceptual understanding of the mathematical concepts represented.
- Teachers use the *Deepen Understanding* in the Teacher's Guide to help students further advance their understanding of the content by having them critically analyze information using complex cognitive thinking.

Student Lesson Walkthrough *continued*

Research says . . .

"Using and **connecting representations** lead students to deeper understanding. Different representations, including concrete models, pictures, words, and numbers, should be introduced, discussed, and connected to support students in explaining their thinking."

— Gojak, L. et al., 2010

CONNECT IT (Whole Class and Individual)

Student's Role

- Students reinforce their learning by recording and reflecting on their work and the classroom discussion. They demonstrate their understanding of the mathematical learning goals as they make connections between the classroom models and strategies, the models on the Student Worktext page, and the symbolic representations that follow.
- After students discuss and defend their responses, they are better able to apply what they have learned to solve similar problems. This helps them understand their own progress as they look for approaches that work best for them and identify where further feedback is needed.

Teacher's Role

- After students have completed the problems, working individually or with a partner, teachers facilitate a whole class discussion with select problems, as time allows, prompting students to explain their reasoning and make connections, leading to deeper understanding.
- The *Hands-On Activities* in the Teacher's Guide are used to help students who need additional support with the concepts of the lesson. Accessing content through another concrete approach helps ELLs and other students visualize concepts.

SESSION 2 ● ● ○ ○ ○

CONNECT IT

Now you will use the problem from the previous page to help you understand how to add any two fractions that have the same denominator.

1. Look at **Picture It**. How do you know that each section of fence is $\frac{1}{10}$ of the whole fence?

2. What do the numerators, 3 and 4, tell you?

3. How many tenths of the fence do Josie and Margo paint altogether? .....

4. Complete the equations to show what fraction of the fence Josie and Margo painted altogether.

   Use words: **3 tenths** + **4 tenths** = ... tenths

   Use fractions: $\frac{3}{10} + \frac{4}{10} = \frac{\square}{10}$

5. What would be the sum if the fractions were $\frac{3}{10}$ and $\frac{5}{10}$? .....

6. Explain how you add fractions that have the same denominator.

7. REFLECT

   Look back at your **Try It**, strategies by classmates, and **Picture It** and **Model It**. Which models or strategies do you like best for adding fractions? Explain.

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Research says . . .

"When you learn an idea in mathematics, it is helpful to reinforce that idea, and the best way to do this is by using it in different ways."

— Boaler, 2016

APPLY IT

Use what you just learned to solve these problems.

8 Lita and Otis help their mom clean the house. Lita cleans $\frac{1}{3}$ of the house. Otis cleans $\frac{1}{3}$ of the house. What fraction of the house do Lita and Otis clean altogether? Show your work.

Solution .....

9 Mark and Imani use string for a project. Mark's string is $\frac{1}{5}$ of a meter long. Imani's string is $\frac{3}{5}$ of a meter long. How long are the two strings combined? Show your work.

..... of a meter

10 Paola makes a fruit smoothie. She uses $\frac{2}{8}$ of a pound of strawberries and $\frac{4}{8}$ of a pound of blueberries. How many pounds of fruit does she use? Show your work.

Solution .....

APPLY IT (Individual or Small Group)

Student's Role

- As students read each problem, they think about possible approaches and make decisions about how to represent the problem. As they determine which models and strategies are most effective for a given problem, they demonstrate flexible use of thinking.
- When students check their work to be sure their answer makes sense, it prompts them to persevere in problem solving as they revise their thinking and provide more complete and precise responses.

Teacher's Role

- Teachers have students work independently to complete the *Apply It* problems so students can practice what they have learned and connect their learning to new problems.
- The *Apply It* problems are an opportunity for teachers to formatively assess individual students in their use of models and understanding of concepts. They circulate, prompting students to elaborate on important information and summarize their thinking. The solutions in the Teacher's Guide provide insight into student reasoning.
- The last problem serves as an Exit Ticket. Teachers look for errors in student thinking and use the *Error Alert* in the Teacher's Guide to provide on-the-spot support.

Student Lesson Walkthrough *continued*

Research says . . .

"Effective teaching of mathematics **builds fluency with procedures** on a foundation of conceptual understanding so that students, over time, become skillful in using procedures flexibly as they solve contextual and mathematical problems."

— NCTM, 2014

Practice (Individual)

Student's Role

- Students work independently, actively participating in completing problems that support them in applying learning to new situations and to demonstrate their reasoning.
- As students respond to and solve new problems, their written work encourages them to reflect on their approaches, deepen their understanding, and monitor their progress toward learning goals.

Teacher's Role

- Teachers observe student strategies and answers, looking for indications that students are engaging with content to gain understanding. They use the solutions in the Teacher's Guide as examples of how students may approach the problems.

Name: _____ **LESSON 20** **SESSION 2**

Practice Adding Fractions

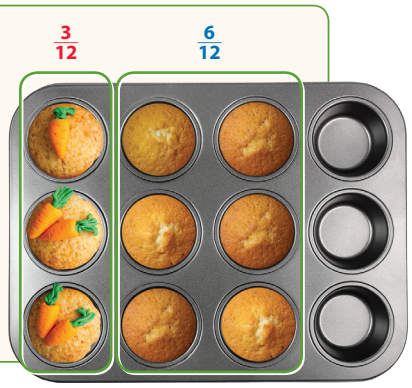
Study the Example showing one way to add fractions. Then solve problems 1–9.

EXAMPLE

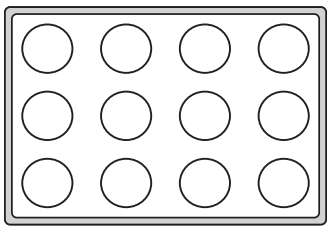
Shrina has a muffin pan that holds 12 muffins.
She fills $\frac{3}{12}$ of the pan with carrot muffin batter.
Then she fills $\frac{6}{12}$ with pumpkin muffin batter.
What fraction of the pan does she fill?

$\frac{3}{12} + \frac{6}{12} = \frac{9}{12}$

So, she fills $\frac{9}{12}$ of the muffin pan.



1. Sam fills $\frac{2}{12}$ of another pan with banana muffin batter. Shade $\frac{2}{12}$ of the muffin pan diagram at the right.



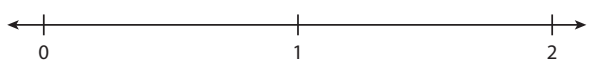
2. Then Sam fills $\frac{6}{12}$ with lemon muffin batter. Shade $\frac{6}{12}$ of the diagram to show this.

3. In problem 2, what fraction of the pan in all is filled now? _____
Write an equation for this problem that includes your answer.

LESSON 20 SESSION 2

Kay runs $\frac{6}{8}$ of a mile and rests. Then she runs another $\frac{6}{8}$ of a mile.

4 Divide the number line below to show eighths.



5 Label $\frac{6}{8}$ on the number line above.

6 Use arrows to show $\frac{6}{8} + \frac{6}{8}$ on the number line.

7 What is the total distance Kay runs? .....

8 Write an equation for this problem that includes your answer.

9 Jin cleans $\frac{1}{10}$ of the patio before lunch and $\frac{9}{10}$ of the patio after lunch. What fraction of the patio does Jin clean altogether? Show your work.

Solution .....

Practice (Individual)

Student's Role

- As students work on solving a variety of new problems, they begin to generalize about how specific approaches can be applied to work more broadly.
- They continue to build procedural fluency by describing and making mathematical choices about how to represent the problems and considering the appropriateness of those choices.

Teacher's Role

- Teachers use the practice problems as an additional opportunity for formative assessment. Written responses are a means to interpret student thinking and gather evidence of student understanding.

Practice and Fluency

Ready Classroom Mathematics is designed so that students are practicing mathematics and building fluency not by learning and repeating procedures, but by reasoning strategically, solving problems, and discussing with peers.

Lesson Structure

A significant amount of practice is built into the program at the lesson level. Teachers should implement lesson practice as part of every session and assess student learning before assigning optional practice.

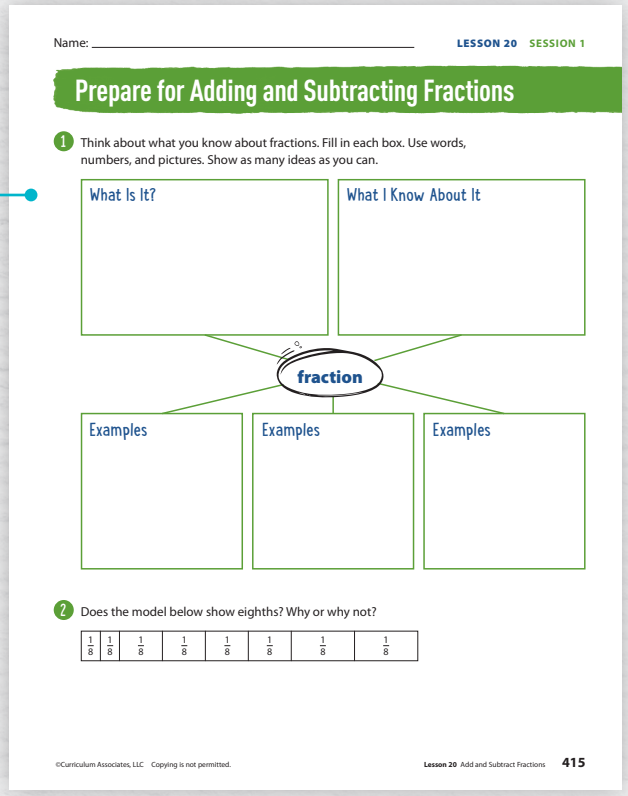
Every lesson is divided into **Explore**, **Develop**, and **Refine** sessions:

	Explore	Develop	Refine
Grades K–1	1 session	2 sessions	2 sessions
Grade 2	1 session	1–3 sessions	2 sessions
Grades 3–5	1 session	1–3 sessions	1 session

Explore Sessions

Students make connections to prior knowledge and begin to build an understanding of why procedures work and how they can be applied. Students are simultaneously learning about new strategies and approaches while practicing previously learned ones.

Every Explore session has **Additional Practice** that reinforces essential mathematical vocabulary. A **graphic organizer** is provided for students to develop deeper understanding of key terms.


Name: _____ LESSON 20 SESSION 1

Prepare for Adding and Subtracting Fractions

1 Think about what you know about fractions. Fill in each box. Use words, numbers, and pictures. Show as many ideas as you can.

What Is It? | What I Know About It

fraction

Examples | Examples | Examples

2 Does the model below show eighths? Why or why not?

$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$

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Building Fluency

Practice rote counting by 10s to 100.

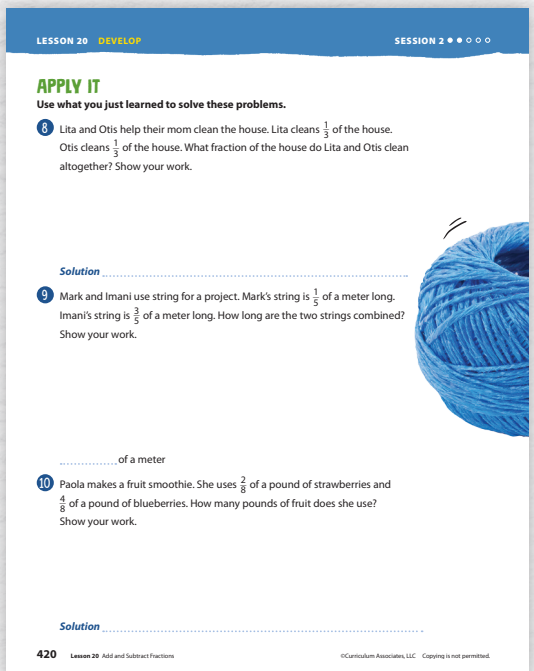
Materials none, children use motions

While children are standing in line, at the start of the day, or at circle time, have them count by tens with actions. They might clap hands, tap feet, or alternate raising hands while counting.

Building Fluency activities (Grade K) are fun and repeatable activities that provide ongoing fluency practice.

Develop Sessions

Students connect ideas they have previously learned with new concepts they are beginning to learn to strengthen their mathematical understanding.



LESSON 20 DEVELOP SESSION 2

APPLY IT

Use what you just learned to solve these problems.

8 Lita and Otis help their mom clean the house. Lita cleans $\frac{1}{3}$ of the house. Otis cleans $\frac{1}{3}$ of the house. What fraction of the house do Lita and Otis clean altogether? Show your work.

Solution .....

9 Mark and Imani use string for a project. Mark's string is $\frac{1}{5}$ of a meter long. Imani's string is $\frac{3}{5}$ of a meter long. How long are the two strings combined? Show your work.

..... of a meter

10 Paola makes a fruit smoothie. She uses $\frac{2}{8}$ of a pound of strawberries and $\frac{4}{8}$ of a pound of blueberries. How many pounds of fruit does she use? Show your work.

Solution .....

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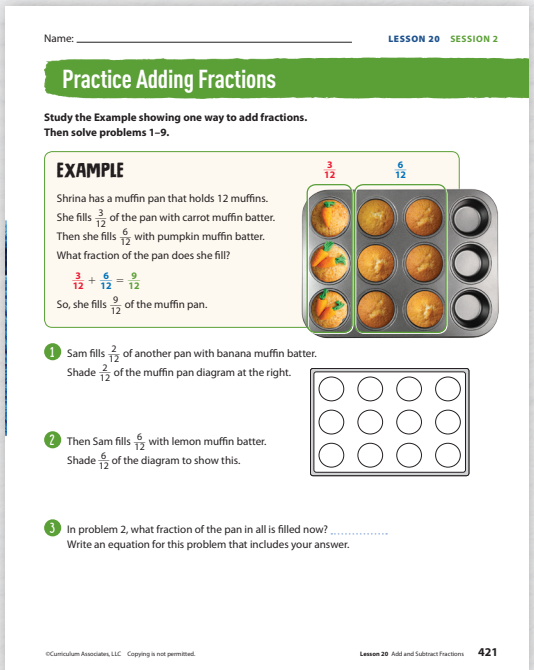
In **Apply It**, students apply strategies they have learned to new problems. This is one of the key places where students engage in meaningful problem-based practice instead of more traditional practice problem sets.



Name: _____ LESSON 20 SESSION 2

Practice Adding Fractions

Study the Example showing one way to add fractions. Then solve problems 1–9.

EXAMPLE

Shrina has a muffin pan that holds 12 muffins. She fills $\frac{3}{12}$ of the pan with carrot muffin batter. Then she fills $\frac{6}{12}$ with pumpkin muffin batter. What fraction of the pan does she fill?

$\frac{3}{12} + \frac{6}{12} = \frac{9}{12}$

So, she fills $\frac{9}{12}$ of the muffin pan.

1 Sam fills $\frac{2}{12}$ of another pan with banana muffin batter. Shade $\frac{2}{12}$ of the muffin pan diagram at the right.

2 Then Sam fills $\frac{6}{12}$ with lemon muffin batter. Shade $\frac{6}{12}$ of the diagram to show this.

3 In problem 2, what fraction of the pan in all is filled now? ..... Write an equation for this problem that includes your answer.

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Additional Practice allows students to demonstrate a flexible use of strategies and solution methods, to explain their thinking about the strategies they are using, and to apply those ideas appropriately and efficiently.

Fluency Practice

Practice using a number path to count on.

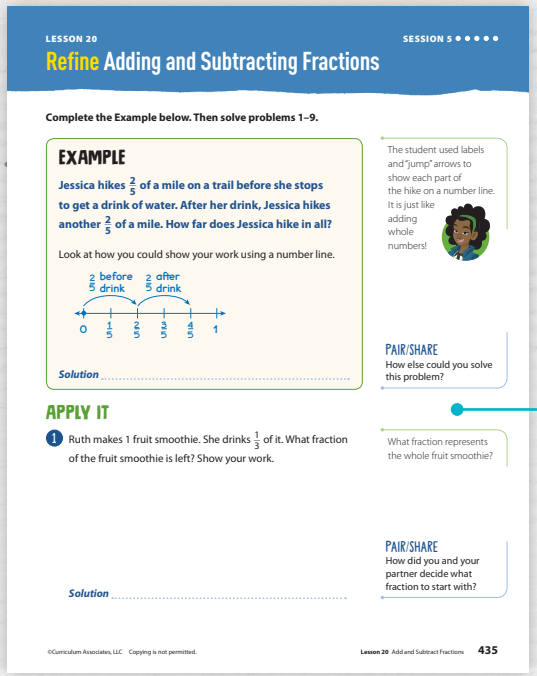
Materials For each child: Activity Sheet *Number Paths*

- Distribute Activity Sheet *Number Paths*. Tell children they are going to use the number paths to model counting on to solve problems.
- Write 5 + 2 = on the board.
- Have children shade the squares 1–5 on the number path. Then have them circle the 5 and draw a curved arrow from 5 to 6 and from 6 to 7. Make sure children notice that the two jumps represent counting on two.
- Write 4 more equations on the board with a blank for the sum. Ask children to model the addition on the number paths in a similar manner and tell the sum.

In **Grades K–1**, the foundations for counting and cardinality are especially important. **Fluency Practice** are brief and fun activities for students to practice mathematical procedures and operations.

Refine Sessions

The Refine session in every lesson provides at least one full day entirely devoted to deepening understanding and practicing skills in *Apply It*.



LESSON 20 SESSION 5

Refine Adding and Subtracting Fractions

Complete the Example below. Then solve problems 1–9.

EXAMPLE

Jessica hikes $\frac{2}{5}$ of a mile on a trail before she stops to get a drink of water. After her drink, Jessica hikes another $\frac{2}{5}$ of a mile. How far does Jessica hike in all?

Look at how you could show your work using a number line.

$\frac{2}{5}$ before drink, $\frac{2}{5}$ after drink; 0, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{4}{5}$, 1

Solution .....

The student used labels and "jump" arrows to show each part of the hike on a number line. It is just like adding whole numbers!

PAIR/SHARE How else could you solve this problem?

APPLY IT

1 Ruth makes 1 fruit smoothie. She drinks $\frac{1}{3}$ of it. What fraction of the fruit smoothie is left? Show your work.

What fraction represents the whole fruit smoothie?

PAIR/SHARE How did you and your partner decide what fraction to start with?

Solution .....

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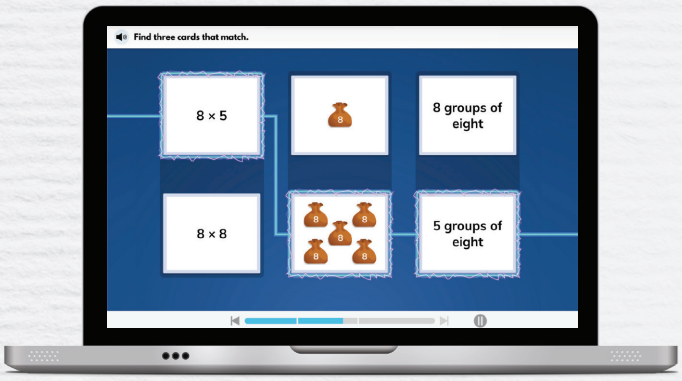
In **Apply It**, rich practice problems provide multiple opportunities for students to practice the concept they are learning by applying it repeatedly to new problems.

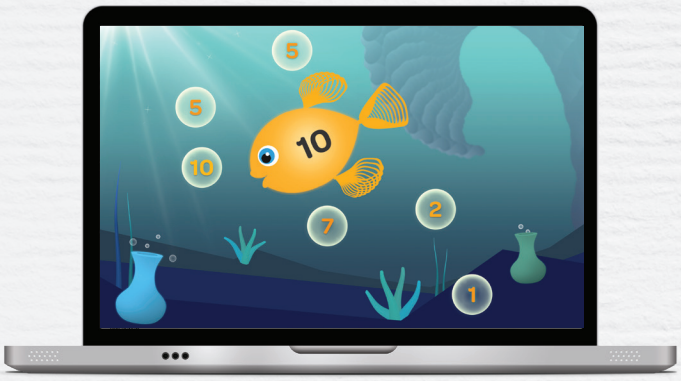
Practice and Fluency *continued*

Additional Lesson-Level Practice

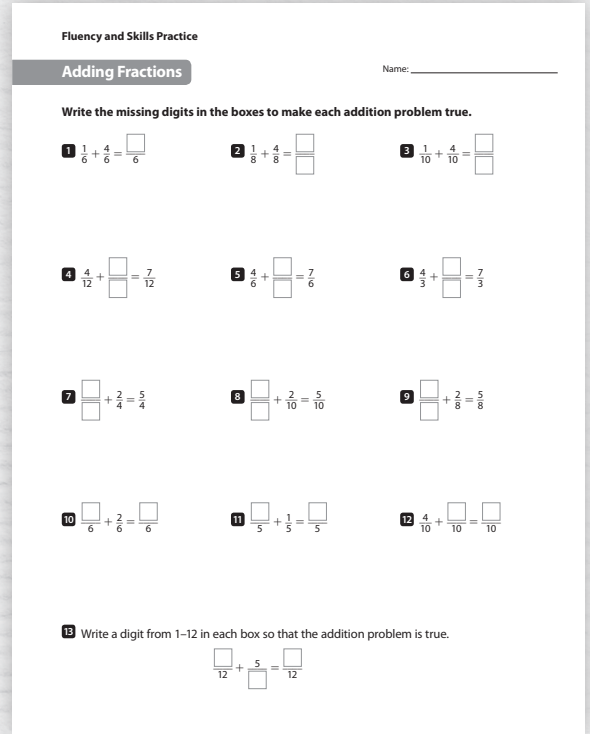
Ready Classroom Mathematics provides targeted practice that teachers can apply flexibly throughout the lesson where it is introduced and as spiraled review in future classes.



Assignable **Interactive Practice** provides targeted practice for skills recently learned.



Learning Games provide engaging fluency practice across a wide range of content. The games provide novel ways for students to visualize different procedures and concepts and, critically, give students a safe space to fail.



Fluency and Skills Practice

Adding Fractions

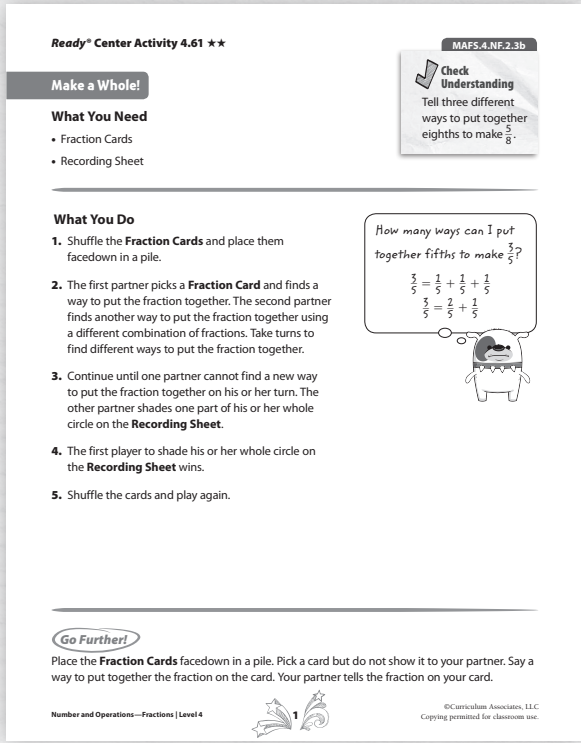
Name: _____

Write the missing digits in the boxes to make each addition problem true.

1. $\frac{1}{6} + \frac{4}{6} = \frac{\square}{6}$
2. $\frac{1}{8} + \frac{4}{8} = \frac{\square}{\square}$
3. $\frac{1}{10} + \frac{4}{10} = \frac{\square}{\square}$
4. $\frac{4}{12} + \frac{\square}{\square} = \frac{7}{12}$
5. $\frac{4}{6} + \frac{\square}{\square} = \frac{7}{6}$
6. $\frac{4}{3} + \frac{\square}{\square} = \frac{7}{3}$
7. $\frac{\square}{\square} + \frac{2}{4} = \frac{5}{4}$
8. $\frac{\square}{\square} + \frac{2}{10} = \frac{5}{10}$
9. $\frac{\square}{\square} + \frac{2}{8} = \frac{5}{8}$
10. $\frac{\square}{6} + \frac{2}{6} = \frac{\square}{6}$
11. $\frac{\square}{5} + \frac{1}{5} = \frac{\square}{5}$
12. $\frac{4}{10} + \frac{\square}{10} = \frac{\square}{10}$
13. Write a digit from 1–12 in each box so that the addition problem is true.

$\frac{\square}{12} + \frac{5}{\square} = \frac{\square}{12}$

Fluency and Skills Practice pages, on the Teacher Toolbox, are for brief and targeted practice of that session's content. These include pages that focus on repeated reasoning to build number sense and mental math skills.



Ready® Center Activity 4.61 ★★

MAFS.4.NF.2.3b

Make a Whole!

What You Need

- Fraction Cards
- Recording Sheet

Check Understanding

Tell three different ways to put together eighths to make $\frac{5}{8}$.

What You Do

1. Shuffle the **Fraction Cards** and place them facedown in a pile.
2. The first partner picks a **Fraction Card** and finds a way to put the fraction together. The second partner finds another way to put the fraction together using a different combination of fractions. Take turns to find different ways to put the fraction together.
3. Continue until one partner cannot find a new way to put the fraction together on his or her turn. The other partner shades one part of his or her whole circle on the **Recording Sheet**.
4. The first player to shade his or her whole circle on the **Recording Sheet** wins.
5. Shuffle the cards and play again.

How many ways can I put together fifths to make $\frac{3}{5}$?

$\frac{3}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$

$\frac{3}{5} = \frac{2}{5} + \frac{1}{5}$

Go Further!

Place the **Fraction Cards** facedown in a pile. Pick a card but do not show it to your partner. Say a way to put together the fraction on the card. Your partner tells the fraction on your card.

Number and Operations—Fractions | Level 4

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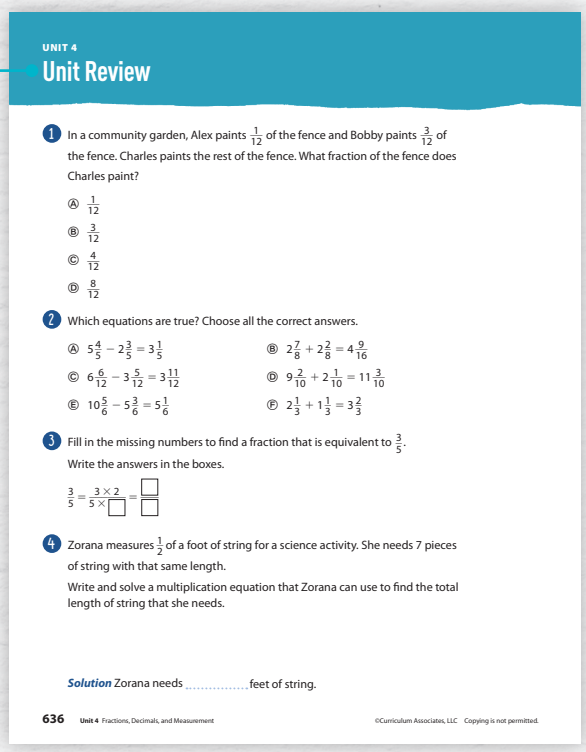
Math Center Activities provide practice for every lesson as students work collaboratively to apply skills, strategies, and procedures through differentiated activities. Use to reinforce lesson skills in a rotation classroom model, as a differentiated activity after a lesson.

Unit Level Resources

Ready Classroom Mathematics focuses on practice that is either an essential part of solving any problem within the unit or a targeted skill necessary for becoming an adept mathematician.

Every unit ends with **Unit Review** pages to provide robust practice on each standard covered throughout the unit (optional).



UNIT 4

Unit Review

1. In a community garden, Alex paints $\frac{1}{12}$ of the fence and Bobby paints $\frac{3}{12}$ of the fence. Charles paints the rest of the fence. What fraction of the fence does Charles paint?

   Ⓐ $\frac{1}{12}$
   Ⓑ $\frac{3}{12}$
   Ⓒ $\frac{4}{12}$
   Ⓓ $\frac{8}{12}$

2. Which equations are true? Choose all the correct answers.

   Ⓐ $5\frac{4}{5} - 2\frac{3}{5} = 3\frac{1}{5}$
   Ⓑ $2\frac{7}{8} + 2\frac{2}{8} = 4\frac{9}{16}$
   Ⓒ $6\frac{6}{12} - 3\frac{5}{12} = 3\frac{11}{12}$
   Ⓓ $9\frac{2}{10} + 2\frac{1}{10} = 11\frac{3}{10}$
   Ⓔ $10\frac{5}{6} - 5\frac{3}{6} = 5\frac{1}{6}$
   Ⓕ $2\frac{1}{3} + 1\frac{1}{3} = 3\frac{2}{3}$

3. Fill in the missing numbers to find a fraction that is equivalent to $\frac{3}{5}$.
   Write the answers in the boxes.

   $\frac{3}{5} = \frac{3 \times 2}{5 \times \square} = \frac{\square}{\square}$

4. Zorana measures $\frac{1}{2}$ of a foot of string for a science activity. She needs 7 pieces of string with that same length.
   Write and solve a multiplication equation that Zorana can use to find the total length of string that she needs.

   Solution Zorana needs _____ feet of string.

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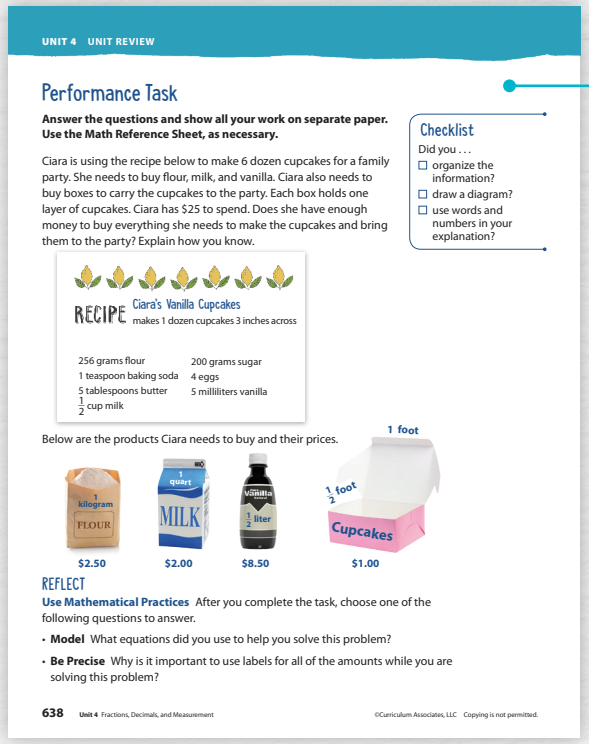

UNIT 4 UNIT REVIEW

Performance Task

Answer the questions and show all your work on separate paper. Use the Math Reference Sheet, as necessary.

Ciara is using the recipe below to make 6 dozen cupcakes for a family party. She needs to buy flour, milk, and vanilla. Ciara also needs to buy boxes to carry the cupcakes to the party. Each box holds one layer of cupcakes. Ciara has $25 to spend. Does she have enough money to buy everything she needs to make the cupcakes and bring them to the party? Explain how you know.

Checklist
Did you . . .
- ☐ organize the information?
- ☐ draw a diagram?
- ☐ use words and numbers in your explanation?

RECIPE Ciara's Vanilla Cupcakes
makes 1 dozen cupcakes 3 inches across

256 grams flour
1 teaspoon baking soda
5 tablespoons butter
$\frac{1}{2}$ cup milk
200 grams sugar
4 eggs
5 milliliters vanilla

Below are the products Ciara needs to buy and their prices.

$2.50 $2.00 $8.50 $1.00

REFLECT

Use Mathematical Practices After you complete the task, choose one of the following questions to answer.

- **Model** What equations did you use to help you solve this problem?
- **Be Precise** Why is it important to use labels for all of the amounts while you are solving this problem?

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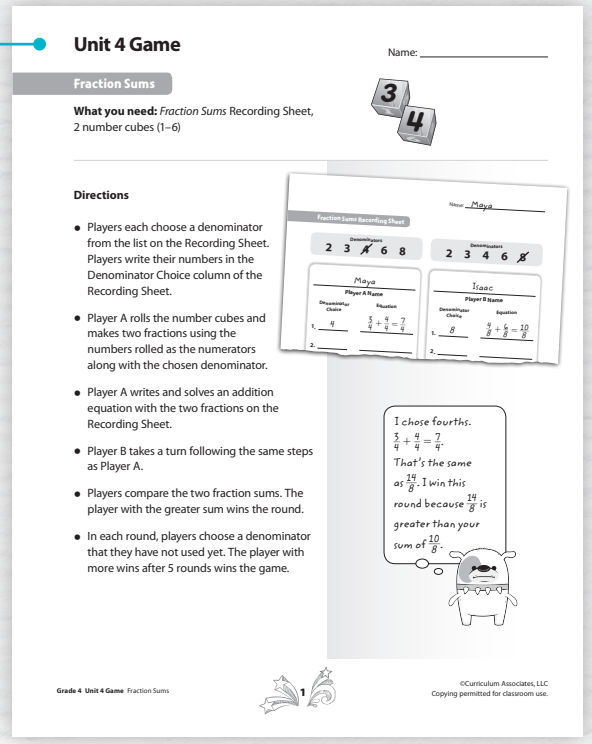
At the end of every Unit Review is a **Performance Task.** These provide additional opportunities for students to practice what they have learned in the context of multi-step, rich problems.

There is a **Unit Game** at the end of every unit that can be found on the Teacher Toolbox. These games provide practice for every unit as students work collaboratively and use critical thinking to apply skills, strategies, and procedures. Use to integrate and reinforce skills of the unit.



Unit 4 Game

Name: _____

Fraction Sums

What you need: *Fraction Sums* Recording Sheet, 2 number cubes (1–6)

Directions

- Players each choose a denominator from the list on the Recording Sheet. Players write their numbers in the Denominator Choice column of the Recording Sheet.
- Player A rolls the number cubes and makes two fractions using the numbers rolled as the numerators along with the chosen denominator.
- Player A writes and solves an addition equation with the two fractions on the Recording Sheet.
- Player B takes a turn following the same steps as Player A.
- Players compare the two fraction sums. The player with the greater sum wins the round.
- In each round, players choose a denominator that they have not used yet. The player with more wins after 5 rounds wins the game.

I chose fourths. $\frac{3}{4} + \frac{4}{4} = \frac{7}{4}$. That's the same as $\frac{14}{8}$. I win this round because $\frac{14}{8}$ is greater than your sum of $\frac{10}{8}$.

Grade 4 Unit 4 Game Fraction Sums 1 ©Curriculum Associates, LLC Copying permitted for classroom use.