

Differentiation and Center Resources

In addition to built-in differentiation in the Try–Discuss–Connect framework, numerous resources are available to address students’ needs.

Grades
K-5

Student-Led Activity Options

- Center/Learning Activities (current or Prerequisite Lessons)
- Enrichment Activities
- Unit Games (on-grade level to review, prerequisites to fill gaps)
- Grade Level Games (Grades K–2)
- Student Worktext Center Activities (Grades K–1)
- Centers Library (Grades K–1)

Independent Activity Options

- Refine Practice (Student Worktext)
- Fluency and Skills Practice
- Digital Learning Games
- *i-Ready Personalized Instruction*

Teacher-Led Activity Options

Current or Prerequisite Lessons:

- Teacher’s Guide
 - Hands-On Activities
 - Deepen Understanding
 - Reteach Activities
 - Challenge Activities
- Tools for Instruction

Teacher-Led Activity Options

Teacher’s Guide Activities

DIFFERENTIATION | EXTEND

Hands-On Activity

Use base-ten blocks to model the multiplication problem.

DIFFERENTIATION | EXTEND

Deepen Understanding

Partial Products

When discussing the partial products model, prompt students to consider the effect of changing the order of the factors. Display the vertical multiplication problem 16×28 with the order of the factors reversed. Work together with students to solve the problem.

ASK Compare this multiplication with the multiplication shown in the Model It. What is the same about the partial products? What is different?

LISTEN FOR The partial products are the same but in a different order.

ASK Why does it make sense that the partial products are the same?

LISTEN FOR You multiply the same ones and tens digits in 16 by the same ones and tens digits in 28. In the four partial products are the same.

Generalize Do you think this is true for multiplying any two-digit number by any other two-digit number? Have students explain their reasoning. Listen for understanding that you can multiply 2 two-digit numbers in any order and the partial products will be the same.

Develop Session (Grades 2–8)

DIFFERENTIATION

RETEACH

Hands-On Activity

Use place value blocks to model the multiplication problem.

EXTEND

Challenge

Solve two-step word problems involving multiplication.

Students extending beyond proficiency will benefit from deepening understanding by solving two-step word problems that involve multiplication.

Have students solve the following problem.

• Amelia earns \$12 for each hour she works as a math tutor. She works as a tutor for 16 hours one week. She also earns \$25 that week for watering her neighbor’s garden. How much does Amelia earn altogether that week? (\$217)

Refine Session (Grades 2–8)

RETEACH

Use with children who need additional support with solving subtraction problems.

Materials: two-color counters (1 per child), 10-frames (1 per child), 0 to 4 and one set of number cards.

• Place the two sets of cards on the board.

• Have a volunteer take a card.

• Tell children they will use model subtracting the number from the number on the board.

• Have children show the number on their 10-frames.

• Next, have children model subtracting the number from the number on the board.

• Ask children how many in equation would show the number on the board.

• Repeat as time allows.

EXTEND

Use with children who have demonstrated ability to solve subtraction problems.

Materials: two-color counters (10 per child), 10-frames (1 per child), 0 to 4 and one set of number cards.

• Say: There are apples in a basket. Some are taken away. 2 apples are left.

• Tell children that their goal number is 2 apples.

• Have children find as many pairs of numbers as they can that, when subtracted, result in 2. Ask children what the numbers in each pair represent. If needed, suggest that children use counters and a 10-frame for support.

• Record answers on the board in order of ascending or descending starting numbers. Ask children if they notice a pattern.

• Repeat with other goal numbers.

Develop Session (Grades K–1)

Deepen Understanding | SMP 2

Representing Problems with Equations

When strategies have been shared, have children discuss how they can use equations to model word problems. Using numbers and symbols to decontextualize a word problem in order to manipulate the numbers and then reconnecting their work to the problem context shows that children can think abstractly and quantitatively.

ASK What do each number and symbol in Boon’s equation represent?

LISTEN FOR Descriptions that 6 and 4 represent the number of friends at the start and the number who join. The plus sign shows that these numbers are added to find the total number of friends. The equal sign shows that the total is 10 friends because $6 + 4 = 10$.

Prompt children to describe how modeling a problem with an equation can be helpful.

Refine Session (Grades K–1)

Tools for Instruction

Tools for Instruction

Solve One-Step Addition and Subtraction Word Problems

Objectives Solve addition and subtraction word problems within 100. Representing operations in a bar model.

Word problems are challenging for many students. Solving word problems draws upon students’ skills with basic operations. In addition to being able to operate with numbers, students have to recognize which operations to use for a problem. It is important to work with students on making sense of word problems, as well as reviewing addition and subtraction. This activity focuses on addition and subtraction word problems within 20. Fluency.

Tools for Instruction

Provide a result unknown addition word problem.

• Write an addition word problem on the board or an index card, such as: *Samuel has 6 marbles. Taylor has 4 marbles. How many marbles do they have altogether?*

• Have the student fill in the bar model and number bond to represent the problem.

• Have the student write an equation to model the number bond and solve the problem.

• If time allows, provide more addition and subtraction word problems and have the student practice solving by using bar models and number bonds.

Check for Understanding

Give the student the following problem: *Carl has a box of 12 raisins. He gives 5 raisins to Edward. How many raisins does Carl have left? Show your work. ($12 - 5 = 7$)*

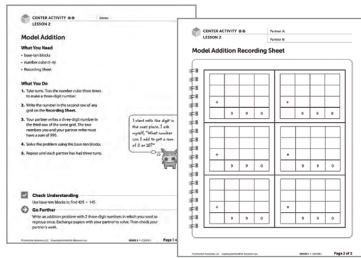
For the student who struggles, use the table below to help pinpoint where extra help may be needed.

If you observe...	the student may...	Then try...
the student struggles to make sense of the problem.	not recognize how the numbers in the problem relate to one another.	having the student fill in a bar model to help make sense of the problem.
the student uses the wrong operation.	not know that a known part can be subtracted from a total to find an unknown part.	working with the student to think about which operation can be used to find an unknown part or an unknown total.
the student models the problem correctly but gets an incorrect answer.	need help with subtraction.	providing subtraction practice with counters and 10-frames.

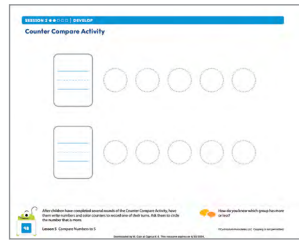
Solve One-Step Addition and Subtraction Word Problems | Page 3 of 3

Teacher Toolbox (Grades K–8)

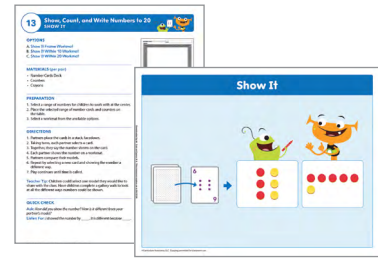
Student-Led Activity Options



Center (Learning) Activities
(Grades K–8)



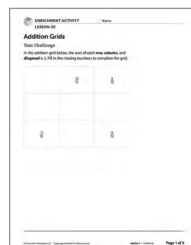
Student Worktext Activities
(Grades K–1)



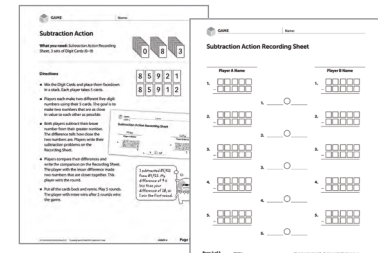
Centers Library
(Grades K–1)



Grade Level Games
(Grades K–2)

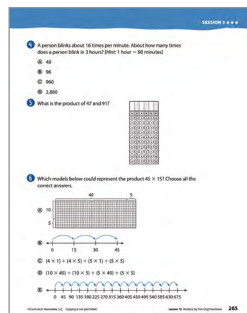


Enrichment Activities
(Grades K–8)

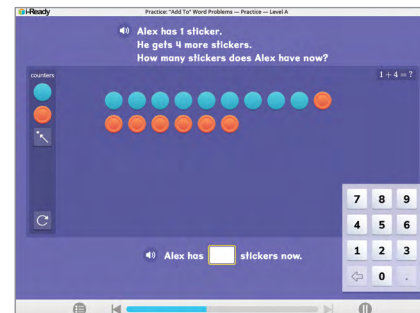


Unit Games
(Grades K–8)

Independent Activity Options



Student Worktext Practice
(Grades K–8)



Personalized Instruction
(Grades K–8)

Did you know . . . there are two pages of practice in the format of state assessment items in every lesson (Grades 2–8) in the Student Worktext Refine session?

These interactive tutorial lessons are automatically assigned to students based on their Diagnostic results, allowing you to customize learning to each students' needs. Reports allow you to see how students are progressing.