



Grade 3 Module 1

Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10

Lesson 10: The Distributive Property with Arrays

Objective Model the distributive property with arrays to decompose units as a strategy to multiply.	Materials <ul style="list-style-type: none"> Blank paper
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Items to share with families in advance of the lesson:

- Links: Lesson 10 Daily Video, Student Edition (SE) Lesson 10
- Materials list
- Assignment: After watching the video, complete Problems 1 and 3 from the Problem Set. Students should work on the Problem Set for 10 minutes and should try to complete as many of the assigned problems as they can. Optionally, provide additional suggestions for students who finish in less than 10 minutes.

Remote Learning Recommendations

	Pacing	Activity	Notes
Asynchronous	15–20 minutes	Daily Video	Ideally, students should watch the video and complete the assignment 1 or 2 days before the synchronous meeting for this lesson. Video description: <ul style="list-style-type: none"> Begins by writing and solving a multiplication equation in the Application Problem Explores the distributive property of multiplication by partitioning arrays and writing related multiplication sentences Introduces the use of parentheses and their connection to the distributive property
	10 minutes	Assignment	The video asks students to complete Problems 1 and 3 from the Problem Set. Consider encouraging students to complete additional problems if they finish in less than 10 minutes.
Synchronous (Virtual or In-Person)	2–10 minutes	Welcome	Consider a routine designed to welcome students into your learning environment.
	2 minutes	Recommendations for Synchronous Learning	Demonstrate where to find links and assignments for each day’s lesson. Practice using the features of your meeting platform: <ul style="list-style-type: none"> Mute and unmute the microphone on your device. Hold a piece of paper up to the camera and make sure it is visible to everyone. Establish virtual classroom rules and engagement practices, such as: <ul style="list-style-type: none"> Show students how to snap their fingers in front of the camera to show they agree with something a peer says. Instruct students to raise their hands in front of the camera when they want to share. Show students how to enter a response to a question in the chat.

In-Person Delivery (Optional)	8 minutes	Multiply by 2 Pattern Sheet	Follow the Fluency activity Multiply by 2 Pattern Sheet, found in the Teacher Edition (TE) for this lesson. <i>“Let’s use skip-counting to count.”</i>
	3 minutes	Group Counting	Follow the Fluency activity Group Counting, found in the TE for this lesson. <i>“Let’s do some group counting.”</i>
Synchronous (Virtual or In-Person)	2 minutes	Focus of Today’s Lesson	Discuss the multiplication equation students created from the Application Problem in the video. <i>“In the video for Lesson 10, we used arrays to think more deeply about multiplication. Let’s continue thinking about what we learned in the video.”</i>
	7 minutes	Application Problem	Present the Application Problem from the SE, either under the document camera or by screen sharing the PDF of the page or the Topic Facilitation slides. Use modeling with interactive questioning and the Read–Draw–Write process and have students record their work in their books, on a clean sheet of paper, or by using the annotation features of the fillable PDF. Refer to the TE for additional notes on facilitation.
	7 minutes	Student Debrief	The Student Debrief is intended to invite reflection and active processing of the total lesson experience. Refer to the TE for additional notes on facilitation. Share the Topic Facilitation slides for Lesson 10 as you lead the debrief. <i>Check Problem 3(a) by drawing and writing on the board as students give you verbal directions for how to create the page in Ruby’s photo album. (Sample Solution)</i> <i>Invite several students to share their work on Problem 3(b) and guide the class to understand the following points.</i> <ul style="list-style-type: none"> • <i>5 × 3 is the result of the number of groups added together and then multiplied by the size of groups in (2 × 3) + (3 × 3).</i> • <i>6 and 9 are the products of each multiplication expression.</i> • <i>The factors in 5 × 3 relate to the number of groups and size of groups in the array.</i> • <i>Both sides of the equation 5 × 3 = 6 + 9 have a value of 15.</i> As you facilitate the debrief, take the opportunity to review and reinforce vocabulary presented in the lesson: parentheses .
	3 minutes	Exit Ticket	Assign the Exit Ticket to be completed and submitted either while in the meeting or asynchronously after your meeting. For guidance on using Exit Tickets to connect between lessons, visit the TEKS Teacher Resource Page .