



Grade 4 Module 3

Multi-Digit Multiplication and Division

Lesson 4: Exploring Patterns When Multiplying by 10, 100, and 1,000

Objective Interpret and represent patterns when multiplying by 10, 100, and 1,000 in arrays and numerically.	Materials <ul style="list-style-type: none"> Thousands Place Value Chart Template
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Items to share with families in advance of the lesson:

- Links: Lesson 4 Daily Video, Student Edition (SE) Lesson 4
- Materials list
- Assignment: After watching the video, complete Problems 3 and 5–8 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	10–15 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"> Warms up with drawing place value disks to represent products when multiplying by a one-digit number and then a two-digit number Describes how to decompose multiples of 10 before multiplying
	10 minutes	Assignment	The video asks students to complete Problems 3 and 5–8 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 using a routine designed to welcome students into the learning environment.
In-Person Delivery (Optional)	3 minutes	Rename the Unit	Follow the Fluency activity Rename the Unit, found in the Teacher Edition (TE) for this lesson. <i>“Let’s rename the units.”</i>
	5 minutes	Group Count by Multiples of 10 and 100	Follow the Fluency activity Group Count by Multiples of 10 and 100, found in the TE for this lesson. <i>“Let’s group count by multiples of 10 and 100.”</i>
Synchronous (Virtual or In Person)	2 minutes	Focus of Today’s Lesson	Discuss the patterns of ten in the place value chart. <i>“In the video for Lesson 4, we used place value disks to represent products when multiplying by one-digit and two-digit numbers. Let’s continue thinking about what we learned in the video.”</i>



	4 minutes	Application Problem	<p>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.</p> <p>Use independent practice 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.</p>
	7 minutes	Student Debrief	<p>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.</p> <p>Share the Topic Facilitation slides for Lesson 4 as you lead the debrief.</p> <p><i>“What is another expression that has the same value as 10×800 and $1,000 \times 8$?” (Connection)</i></p>
	3 minutes	Exit Ticket	<p>Assign the Exit Ticket to be completed and submitted either while in the meeting or asynchronously after the meeting.</p>