G3 Playlist: Multiplying by Multiples of 10

Aligns with *CCSS.MATH.CONTENT.3.NBT.A.3:* Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Related Standards

- *CCSS.MATH.CONTENT.2.NBT.A.1:* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:

- *CCSS.MATH.CONTENT.3.OA.A.1:* Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.

- *CCSS.MATH.CONTENT.3.OA.A.3:* Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

- *CCSS.MATH.CONTENT.3.OA.B.5:* Apply properties of operations as strategies to multiply and divide.

- *CCSS.MATH.CONTENT.3.OA.D.9:* Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

- *CCSS.MATH.CONTENT.4.NBT.A.1:* Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.

Objectives

In this module, you will learn and practice the following skills:

- Use a number line to multiply by a multiple of 10

- Use an array to multiply by a multiple of 10

- Use factors to multiply by a multiple of 10

Let's get started!

Key Terms

- An **open number line** is a number line that does not have a set endpoint.

- A **closed number line** is a number line that does have a set endpoint.

- An **array** is a representation using rows and columns.

- A **factor** is one number that is multiplied by another number to create a certain product.

- A **multiple** is a result of multiplying a whole number by whole number.

Multiplying by Multiples of 10

(3.NBT.A.3)

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If your students…

Struggle with breaking apart the multiple of 10:

WATCH: Multiply by multiples of 10 by breaking apart the multiple of ten into 2 factors

https://learnzillion.com/lesson_plans/6928-multiply-by-mutliples-of-10-by-breaking-apart-the-multiple-of-ten-into-2-factors#fndtn-lesson

Struggle with multiplying using number lines:

WATCH: Multiply by multiples of 10 using number lines

https://learnzillion.com/lesson_plans/6562-multiply-by-multiples-of-10-using-number-lines#fndtn-lesson

Struggle with multiplying using arrays:

WATCH: Multiply by multiples of 10 using arrays

https://learnzillion.com/lesson_plans/7149-multiply-by-mutliples-of-10-using-arrays#fndtn-lesson

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For extra practice with multiplying by 10:

PLAY: Multiplying by 2, 3, 4, 5, and 10

http://braingenie.ck12.org/skills/103015

For extra practice with multiplying by multiples of 10 in word problems:

PLAY: Multiply by tens word problems

https://www.khanacademy.org/math/cc-third-grade-math/cc-3rd-mult-div-topic/cc-3rd-grade-multiplying-by-10/e/multiply-by-tens-word-problems

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