

Lesson 6: Standard Algorithm: Multi-digit Numbers with Composing

Standards Alignments

Addressing 5.NBT.B.5

Teacher-facing Learning Goals

- Use the standard algorithm to multiply up to three-digit numbers and two-digit numbers, including composing new units.

Student-facing Learning Goals

- Let's multiply with the standard algorithm and compose new units.

Lesson Purpose

The purpose of this lesson is for students to understand and apply the standard algorithm for multiplication when multiplying two- and three-digit numbers with composition of new units.

In previous lessons, students learned to use the standard algorithm for multiplication with up to five-digit numbers and one-digit numbers when a new unit is composed. They also multiplied three-digit and two-digit numbers without composing a new unit. In this lesson, students combine these two skills. They use the standard algorithm for multiplication of a three-digit and a two-digit number and record the composition of new units.

Access for:

Students with Disabilities

- Engagement (Activity 2)

English Learners

- MLR8 (Activity 1)

Instructional Routines

Number Talk (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	25 min
Activity 2	10 min

Teacher Reflection Question

As students worked in their small groups today, whose ideas were heard, valued, and accepted? How can you adjust the group structure tomorrow to ensure each student's ideas are a part of the collective learning?

Lesson Synthesis 10 min

Cool-down 5 min

Cool-down (to be completed at the end of the lesson)

🕒 5 min

Use the Standard Algorithm

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Student-facing Task StatementUse the standard algorithm to find the product 251×34 .**Student Responses**

8,534

$$\begin{array}{r} 1 \\ 2 \\ \times 251 \\ \times 34 \\ \hline 1,004 \\ + 7,530 \\ \hline 8,534 \end{array}$$