Lesson 7: Build Multiplication Fluency

Standards Alignments

Addressing   5.NBT.B.5

Teacher-facing Learning Goals

- Use the standard algorithm to find products with any number of newly composed units.

Student-facing Learning Goals

- Let's multiply multi-digit whole numbers using the standard algorithm.

Lesson Purpose

The purpose of this lesson is to multiply two-digit and three-digit numbers with any number of newly composed units.

In previous lessons students have used the standard algorithm to find products of 3-digit and 2-digit numbers including products with newly composed units. In this lesson, students continue to find products, building fluency in situations with any number of newly composed units. Students learn a center game where they try to make the greatest product using 5 digits which they successively select. Continuing the theme of large products, students examine the number of new units that can be composed using the standard algorithm for multiplication and see that it is possible to compose up to 8 new units but not 9.

Access for:

♿ Students with Disabilities

- Action and Expression (Activity 1)

🌐 English Learners

- MLR8 (Activity 2)

Instructional Routines

Notice and Wonder (Warm-up)

Materials to Copy

- Greatest Product (groups of 1): Activity 1
- Number Cards (0-10) (groups of 2): Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

As you support students as they continue to practice and understand the standard algorithm for multiplying whole numbers, in what ways will you leverage the diagrams and partial products algorithms used in early lessons to help students use the standard algorithm fluently?

Cool-down (to be completed at the end of the lesson)   🕐 5 min

Calculating a Product

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Student-facing Task Statement

Use the standard algorithm to find the product 372×83.

Student Responses

30,876

$$
\begin{array}{r}
\overset{5}{\underset{2}{}}\ \overset{1}{} \\
3\ 7\ 2 \\
\times \quad 8\ 3 \\
\hline
\overset{1}{}\ \ 1\ 1\ 1\ 6 \\
+\ 2\ 9,\ 7\ 6\ 0 \\
\hline
3\ 0,\ 8\ 7\ 6
\end{array}
$$