# Lesson 4: Standard Algorithm: One-digit and Multi-digit Numbers with Composing

### Standards Alignments

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| --- | --- |
| Addressing | 5.NBT.B.5 |

### Teacher-facing Learning Goals

* Use the standard algorithm to multiply up to five-digit numbers by one-digit factors, including composing new units.

### Student-facing Learning Goals

* Let’s use the standard algorithm to multiply one-digit numbers and multi-digit numbers.

### Lesson Purpose

The purpose of this lesson is for students to use the standard algorithm to multiply up to five-digit numbers and one-digit numbers.

In grade 4, students interpreted the standard algorithm for multiplication and compared it to a partial products algorithm to multiply up to four-digit numbers and one-digit numbers. In this lesson, students extend their understanding of the standard algorithm to multiply up to five-digit numbers and one-digit numbers, including problems where one or more new units are composed. This is the first in a series of lessons to support students in developing fluency using the standard algorithm to multiply multi-digit numbers.

### Access for:

### Students with Disabilities

* Representation (Activity 2)

### Instructional Routines

MLR1 Stronger and Clearer Each Time (Activity 1), Number Talk (Warm-up)

### Lesson Timeline

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

### Teacher Reflection Question

What evidence do you see that your students are applying what they learned about partial products to make sense of the standard algorithm?

## Cool-down

(to be completed at the end of the lesson) 5min

Standard Algorithm Calculation

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### Student-facing Task Statement

Use the standard algorithm to find the value of .

### Student Responses

Sample response:

