

Lesson 20: Sticky Notes (Optional)

Standards Alignments

Addressing 4.NF.B.3.d, 4.NF.B.4

Teacher-facing Learning Goals

- Use addition, subtraction, and multiplication of fractions to model and solve a design problem.

Student-facing Learning Goals

- Let's make a design using sticky notes.

Lesson Purpose

The purpose of this lesson is for students to apply their understanding of multiplication of a whole number by a fraction to create sticky-note letter designs.

This lesson is optional because it does not address any new mathematical content standards. This lesson does provide students with an opportunity to apply precursor skills of mathematical modeling. In previous lessons, students used diagrams, expressions, and equations to represent multiplication of a fraction by a whole number.

In this lesson, students apply their knowledge of fraction by whole number multiplication to create sticky note designs. They create a design given a set of constraints. Students describe their design to others before gaining access to the supplies to make their design.

When students make decisions and choices, analyze real-world situations with mathematical ideas, translate a mathematical answer back into the context of a (real-world) situation, and adhere to constraints, they model with mathematics (MP4).

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

English Learners

- MLR8 (Activity 1)

Instructional Routines

Which One Doesn't Belong? (Warm-up)

Materials to Gather

- Blank paper: Activity 1

- Sticky notes: Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	30 min
Lesson Synthesis	10 min

Teacher Reflection Question

How comfortable were the students in making choices? Were your students able to explain their thinking and convince others that their design fit the given constraints?