At-Home Learning Presents
CLASSROOM CONNECTION!

Lesson Title: Division: Unit Fractions   **Designer:** Jason Lineberger
Discipline: Math   **Grade Level:** 4-5

Activity 1: Drawing Fraction Bars
(Appropriate for AFTER the Broadcast Lesson)

Activity Goal: Practice dividing fractions by whole numbers.

Targeted Math Skills: Division with fractions

Materials: Whiteboard/paper, markers, index cards

Steps:
1. Write down unit fractions - ⅙, ⅕, ¼, ⅓, ½ on separate index cards. Then, fold those and drop them in a container (a box, hat, bowl, etc.).
2. On another set of cards write the numbers 1 through 9. Then, fold those and put them in another container.
3. To complete the activity, first draw a card from the fraction's container. Represent that fraction visually by drawing a fraction bar. For example, if the unit fraction ⅕ is pulled, draw a rectangular bar and separate it into five parts.
4. Then draw a number from the other container. Subdivide each of the sections in the bar by that number. For example, if the number 3 is pulled, each section will be divided into three additional parts.
5. Color in one of the blocks. Count the total (= the answer to the division problem). In the case of the example, ⅕ divided by 3 =1/15.
6. Repeat and practice by pulling cards from both containers.

Activity 2: Jumping Fractions
(Appropriate for AFTER the Broadcast Lesson)

Activity Goal: Practice dividing a whole number by unit fractions.

Targeted Math Skills: Division with fractions.

Materials: Sidewalk chalk

Steps:
1. Mark off a number line from 0 to 10 using the sidewalk chalk. The numbers should be a few feet apart.
2. The first step is to call out a fraction and have students divide each segment of the number line by that fraction. For instance, if you call out "⅙" the students will divide each segment into 6 parts. Ask them to walk the line by sixths. Then, call

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out a whole number between 1-10. Ask them to walk by sixths again to that number.

3. The total steps they take will be the answer to the division problem, dividing that whole number by a unit fraction. For example, if students have marked off the line by sixths, calling out 3 would result in students counting 18 steps. 3 divided by $\frac{1}{6}$ equals 18.

4. After running the same fraction with a few different whole numbers, erase the chalk marks and use a different fraction!

Additional Resources for Lesson-Related Extension Activities:

- **Student-Facing**
  - Divide unit fractions by whole numbers (Math Games) - https://www.mathgames.com/skill/5.94-divide-unit-fractions-by-whole-numbers
  - Video with Activity for dividing whole numbers by unit fractions (UNCTV/PBS Learning Media) - https://unctv.pbslearningmedia.org/resource/mgbh.math.nf.divfrac/dividing-a-whole-number-by-a-unit-fraction/

- **Teacher-Facing**
  - Dividing fractions by whole numbers lesson plan (Better Lesson) - https://betterlesson.com/lesson/592947/dividing-unit-fractions-by-whole-numbers
  - Division of fractions lesson plan (CSU) - https://web.csulb.edu/~lhenriqu/5-Fractions.pdf

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