

Lesson Title: A Fraction of a Hike Designer: Jason Lineberger  
Discipline: Math Grade Level: 4-5

**Activity 1: Visualizing Fractions - Bar Model**  
(Appropriate for AFTER the Broadcast Lesson)

**Activity Goal:** Practice adding fractions with unlike but related denominators

**Targeted Math Skills:** Addition & Fractions

**Materials:** Whiteboard, dry erase markers

**Steps:**

1. Here is an online resource with sample word problems (Braingenie.ck12) - (<https://braingenie.ck12.org/skills/102631>)
2. For each of these problems, students should start by representing the fractions in the problem using a bar model, as mentioned in the lesson. If they have to add  $\frac{1}{4}$  and  $\frac{1}{3}$ , they will first draw a bar and divide it into four sections. They will then divide each of those sections into three smaller sections.
3. This representation will help students understand that  $\frac{1}{4}$  equals  $\frac{3}{12}$  and that  $\frac{1}{3}$  equals  $\frac{4}{12}$ .  $\frac{1}{4}$  plus  $\frac{1}{3}$  would therefore equal  $\frac{7}{12}$ .
4. Practice each problem by drawing bar models to solve the problem, then check the answer by entering it on the website.

**Activity 2: Play a Game**  
(Appropriate for AFTER the Broadcast Lesson)

**Activity Goal:** Practice adding fractions, especially those with unlike denominators.

**Targeted Math Skills:** Addition & Fractions

**Materials:** Computer

**Steps:**

1. Playing online math games can be a good change of pace. Most online math games offer instant feedback as students play. These games target addition of fractions with like and unlike denominators.
2. Have your students try out one of more of the following games:
  - Fruit Splat: adding/subtracting fractions (Sheppard Software)  
- <https://www.sheppardsoftware.com/mathgames/fractions/FruitShootFractionsSubtraction.htm>

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- Feed Me Fractions: Calculations with fractions (ABCYA) - [https://www.abcya.com/games/adding\\_fractions](https://www.abcya.com/games/adding_fractions)
- Study Jams Online Fraction Practice (Scholastic) - <http://studyjams.scholastic.com/studyjams/jams/math/fractions/add-sub-common-denom.htm>

## Additional Resources for Lesson-Related Extension Activities:

- **Student-Facing**
  - Khan Academy lesson on adding fractions (Khan Academy) - <https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-add-and-subtract/cc-7th-add-sub-neg-fractions/v/adding-and-subtracting-three-fractions>
  - Cyberchase video on adding fractions with unlike denominators (UNCTV/PBS Learning Media) - <https://unctv.pbslearningmedia.org/resource/mwnet-math-nf-helpwan/adding-and-subtracting-with-unlike-denominators-help-wanted-for-bianca/>
  - Online interactive - Meerkatcher (UNCTV/PBS Learning Media) - <https://unctv.pbslearningmedia.org/resource/a26a72b6-e2b5-404b-91ac-50028cd05fec/a26a72b6-e2b5-404b-91ac-50028cd05fec/>
- **Teacher-Facing**
  - Adding and subtracting fractions lesson plan (Common Sense) - <https://www.commonsense.org/education/lesson-plans/5th-grade-adding-and-subtracting-fractions>
  - Adding and subtracting fractions lesson plan (BrainPOP Educators) - <https://educators.brainpop.com/lesson-plan/adding-and-subtracting-unlike-fractions-lesson-plan/>