

Comparing fractions with the same denominator

CCS Standard: 3.NF.A.3: Compare fractions with the same denominator.

A. GRADE LEVEL: 3rd–4th Grade

B. SUBJECT: STEM/ Math

C. DATE:

D. DURATION: 2 days

E. LESSON FOCUS: Comparing fractions with the same denominator

F. MATERIALS:

- Paper plates (or circles)
 - Fraction strips or paper divided into equal parts
 - Markers, crayons, or colored pencils
 - Scissors
 - Fraction worksheets (with visual representations)
 - Recipe cards with different ingredient portions (optional)
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G. LESSON OBJECTIVES:

- Students will understand how to compare fractions with the same denominator.
 - Students will visually represent fractions and compare their sizes using paper plates or fraction strips.
 - Students will apply their understanding of fractions to real-life scenarios, such as comparing portions in recipes.
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H. PROCEDURES:

1. INTRODUCTION:

- Begin by reviewing the concept of fractions. Discuss the numerator (top number) and denominator (bottom number). Explain that fractions represent parts of a whole.
- Introduce the lesson's focus on comparing fractions with the same denominator. Explain that fractions with the same denominator are compared by looking at the numerators (the larger the numerator, the larger the fraction).
- Provide examples like $\frac{1}{4}$ and $\frac{3}{4}$ to illustrate how comparing fractions works.

2. EXPERIMENT:

- Provide each student with a paper plate divided into equal sections (e.g., $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$).
- Have students color in the sections of their paper plates to represent the fractions.
- Ask students to compare fractions on their plates (e.g., $\frac{2}{4}$ vs. $\frac{3}{4}$) and determine which is larger.
- Use fraction strips as an additional tool to help students visualize and compare fractions.

3. OBSERVATION:

- Students will observe how the fraction with the larger numerator is the greater fraction when the denominators are the same.

- As students work in pairs or small groups, encourage them to discuss their reasoning for which fraction is greater or smaller.
4. **GENERALIZATION:**
- Students will conclude that when comparing fractions with the same denominator, the fraction with the larger numerator is always the greater fraction.
 - They will understand that fractions represent parts of a whole and that the size of the fraction depends on how many parts the whole is divided into and how many parts are being considered.
5. **ASSESSMENT:**
- Distribute a worksheet where students compare a set of fractions with the same denominator (e.g., $\frac{3}{8}$, $\frac{5}{8}$, $\frac{7}{8}$).
 - Ask students to circle the larger fraction in each pair and explain why it is greater.
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Note 1: Safety

Students should be careful when using scissors to cut out fraction strips and paper. Ensure that students use child-safe scissors and supervise them during cutting activities to avoid accidents.

Note 2: Accommodation for ELL and ESE Students

For ELL students, provide visual aids such as fraction strips or pictures to help them better understand the concept of fractions. Use simple language and provide sentence starters, such as “ $\frac{1}{4}$ is smaller than $\frac{1}{2}$ ” and “ $\frac{3}{4}$ is greater than $\frac{1}{2}$.” For ESE students, offer hands-on activities and peer support to reinforce the concept. Manipulatives, like fraction tiles or paper plates divided into equal parts, will help students visualize and compare fractions in a concrete way.