

## Equivalent Expression Matchup and Presentations

*Adapted from the book Beyond Pizzas and Pies: 10 Essential Strategies for Supporting Fraction Sense*

**Student Objective:** “I can find equivalent fractions and show how they are equivalent in multiple ways.”


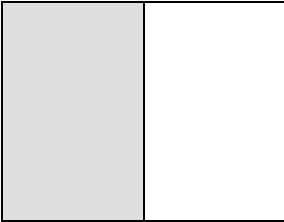
\*\*\*This lesson is designed for a culminating activity dealing with fraction equivalence.

Standards to Measure	Mathematical Practices
<p><b>3. NF.3</b> Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.</p> <p><b>a.</b> Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.</p> <p><b>b.</b> Recognize and generate simple equivalent fractions, e.g. <math>1/2=2/4</math>, <math>4/6=2/3</math>. Explain why the fractions are equivalent, e.g., by using a visual fraction model.</p> <p><b>c.</b> Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form of <math>3=3/1</math>; recognize that <math>6/1=6</math>; locate <math>4/4</math> and 1 at the same point on a number line diagram.</p>	<p>2. Reason abstractly and quantitatively</p> <p>6. Attend to precision</p> <p>5. Use appropriate tools strategically</p> <p>8. Look for and express regularity in repeated reasoning</p>

### Materials:

Chart paper (for student posters), Equivalent Fraction Cards (see below), Poster Rubric

<p><b>G</b></p> <p>Engage Students with the Goal</p>	<p><u>State and Rate</u></p> <p>Objective: “I can find equivalent fractions and show how they are equivalent in multiple ways.”</p> <p>Students rate themselves to the goal (1, 2, 3, 4).</p>	<p>Setting Objectives and Providing Feedback</p>
<p><b>A</b></p> <p>Access Prior Knowledge</p>	<p>Ask students, “What makes fractions equivalent?”</p> <p>“How do you know that two fractions are equivalent?”</p> <p>Discuss as a class.</p>	<p>Nonlinguistic Representation</p> <p>Cues, Questions, and Advance Organizers</p> <p>Cooperative Learning</p>

<p><b>N</b></p> <p>New Information</p>	<p><i>Students should have already practiced and had multiple lessons with fraction equivalence before this lesson.</i> Show students visuals below and ask them, “Are these fraction models equivalent?”  “Why or why not?”  “How would we notate this?”</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>“What about these two fractions, <math>\frac{3}{4}</math> and <math>\frac{6}{8}</math>? Are they equivalent? Why or why not? How could you prove it?” (Reviewing what they learned.)</p> <p>Student will pair share and justify their reasoning.  Share out as a class and discuss.</p>	<p>Similarities and Differences</p> <p>Nonlinguistic Representation</p> <p>Cues, Questions, and Advance Organizers</p>
<p><b>A</b></p> <p>Application</p>	<ol style="list-style-type: none"> <li>Mix up the cards and distribute them to students. Each student should receive one card. Tell students to find two other people who have a card with an equivalent fraction. Once students have found their matches, have them work together with their matching partners to create a poster using the following: <ul style="list-style-type: none"> <li>The fractions must be written as an equation showing their equivalence.</li> <li>You must include one other fraction that is equivalent to your pair.</li> <li>Must have an explanation that proves, in two different ways, that the fractions are equivalent. The explanation may be done using pictures, numbers, and/or words.</li> </ul> </li> <li>When students are done, post their posters around the room and do a “gallery walk” to view all of them using the criteria listed above as a rubric. As students view the posters, have them score the posters to the criteria on the rubric. Tell students to look for the poster that had the clearest and easiest explanation of equivalent fractions to them.</li> <li>Come back together as a class and have students share out what poster was most meaningful to them in their learning.</li> </ol>	<p>Similarities and Differences</p> <p>Providing Feedback</p> <p>Practice and Homework</p>
<p><b>G</b></p> <p>Revisit the Goal</p>	<p><u>State and Rate</u>  Objective: “I can find equivalent fractions and show how they are equivalent in multiple ways.”</p> <p>Students rate themselves to the goal (1, 2, 3, 4).</p> <p>Have students write a statement to summarize their learning for the day.</p>	<p>Setting Objectives and Providing Feedback</p>

$1/1$	$3/3$	$10/10$	$1/2$	$2/4$
$3/6$	$1/3$	$2/6$	$3/9$	$4/12$
$1/4$	$2/8$	$3/12$	$1/5$	$2/10$
$3/15$	$1/6$	$2/12$	$3/18$	$1/7$
$2/14$	$3/21$	$1/8$	$2/16$	$3/24$

## Equivalent Fraction Poster Rubric

Award each poster points for each component:

- 0- Work not shown
- 1- Work shown
- 2- Work shown and very clear to reader

Group	Fractions are written as an equation showing their equivalence.	Includes one other fraction that is equivalent.	Shows how fractions are equivalent in two different ways.	Total Points
<b>1</b>				
<b>2</b>				
<b>3</b>				
<b>4</b>				
<b>5</b>				
<b>6</b>				
<b>7</b>				
<b>8</b>				