

### Small Group Math Centers

**Focus Standard: 5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, by using visual fraction models and equations to represent the problem.**

**Focus Objective: At the end of the day, the students will review solving problems, simplifying fraction, and finding the least common denominator to help transition the students into word problems involving addition and subtraction.**

#### Work with Teacher

**Group 1 (Proficient) – Focus Skill and Activity**

The students are going to use whiteboards and we are going to work on simplifying fractions and work on finding the least common denominator. I will be showing the students problems and will focus on one student for each problem to see what steps they are taking to find the answer.

**Group 2 (Above Proficient) – Focus Skill and Activity**

The students are going to be using whiteboards and we are going to quickly review simplifying fractions and finding the common denominator. Then, we are going to be playing a game, called math war. I will be keeping track to see who won and which problems we got right or wrong.

**Group 3 (Approaching Proficient) – Focus Skill and Activity**

The students are going to use whiteboards and we are going to work on simplifying fractions and work on finding the least common denominator. I will be showing the students problems and will focus on one student for each problem to see what steps they are taking to find the answer

**Group 4 (Below Proficient) – Focus Skill and Activity**

The students are going to using whiteboards and we are going to review the steps to simplify fractions and how to find the common denominator for fractions. Then, I will have the students practice problems.

#### Work with Technology

**Group 1 – Focus Skill and Activity**

The students are only allowed to go on the website Mathgames.com. They will go into the fifth-grade section and pick games under fractions. Group 1 – games finding the common denominator.

**Group 2 – Focus Skill and Activity**

The students are only allowed to go on the website Mathgames.com. They will go into the fifth-grade section and pick games under fractions. Group 2 – adding and subtracting or finding the common denominator games.

**Group 3 – Focus Skill and Activity**

The students are only allowed to go on the website Mathgames.com. They will go into the fifth-grade section and pick games under

**Group 4 – Focus Skill and Activity**

The students are only allowed to go on the website Mathgames.com. They will go into the fifth-grade section and pick games under

fractions. Group 3 – games finding the common denominator	fractions. Group 4 – games finding the common denominator.
<b>Independent Practice</b>	
<b>Group 1 – Focus Skill and Activity</b>	<b>Group 2 – Focus Skill and Activity</b>
They will be completing a paper chain alone. They will be practicing finding the least common denominator from the question on the sheet. Then, they will connect the right answer to the right question to keep the paper chain going.	They will be completing an adding and subtracting fractions color worksheet. Therefore, they will find the answer and then look at the key to see which color they color that spot.
<b>Group 3 – Focus Skill and Activity</b>	<b>Group 4 – Focus Skill and Activity</b>
They will be completing a paper chain with a partner. They will be practicing finding the least common denominator from the question on the sheet. Then, they will connect the right answer to the right question to keep the paper chain going.	They will be completing a common denominator and simplifying fractions worksheet. This will be handed in once the students are done.

## Day 2

<p><b>Focus Standard: 5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, by using visual fraction models and equations to represent the problem.</b></p> <p><b>Focus Objective: At the end of the day, the students will solve problems involving addition and subtraction of fractions with visual fraction models to represent the problem.</b></p>	
<p><b>Work with Teacher</b></p>	
<p><b>Group 1 (Proficient) – Focus Skill and Activity</b></p>	<p><b>Group 2 (Above Proficient) – Focus Skill and Activity</b></p>
<p>The students are going to walk me through how to add and subtract a fraction with unlike and common denominators. We will do one step at a time. Then, I will have the students practice using their whiteboards. I am going to have each student come up with a question for the group and then we solve it for the practice.</p>	<p>I am going to begin with a small quiz of reviewing the terms with the students. I want the students to be able to know if they are going to add or subtract with some key clues in the word problem. Then, we will practice some addition and subtraction word problems with common denominators using a white board. They will be using the fraction bars to visualize how much each part of the problem is worth.</p>
<p><b>Group 3 (Approaching Proficient) – Focus Skill and Activity</b></p>	<p><b>Group 4 (Below Proficient) – Focus Skill and Activity</b></p>
<p>I am going to walk through adding and subtracting fractions with unlike and common denominators with the students. We will do one step at a time. I will ask for volunteers of what is the next step. Then, I will have the students practice using their whiteboards.</p>	<p>I am going to walk through each step, with the students modeling me on their whiteboards of how to add or subtract fractions with common denominators. Then, I will have the student's practice. We will be using the fraction bars to show how much each part of the problem is worth.</p>
<p><b>Work with Technology</b></p>	
<p><b>Group 1 – Focus Skill and Activity</b></p>	<p><b>Group 2 – Focus Skill and Activity</b></p>
<p>The students will go on the website mathplaground.com. They will focus on games that require them to add and subtract fractions with unlike and common denominators.</p>	<p>The students will go on the website mathplaground.com. They will focus on games that require them to add and subtract fractions with unlike or common denominators or with the fraction word problem games.</p>
<p><b>Group 3 – Focus Skill and Activity</b></p>	<p><b>Group 4 – Focus Skill and Activity</b></p>

<p>The students will go on the website mathplaground.com. They will focus on games that require them to add and subtract fractions with unlike and common denominators</p>	<p>The students will go on the website mathplaground.com. They will focus on games that require them to add and subtract fractions with only common denominators</p>
<p><b>Independent Practice</b></p>	
<p><b>Group 1 – Focus Skill and Activity</b></p>	<p><b>Group 2 – Focus Skill and Activity</b></p>
<p>The students will be going through addition and subtraction of fractions with unlike and common denominators. They will be doing this individually and work through it on a whiteboard. To check if they got the right answer, they will flip over the card.</p>	<p>The students will be completing a QR Code Game with their computers/Ipads. They will work through a problem that is on the card and then will scan the code to get the answer. They will be doing this with either with a partner or individually.</p>
<p><b>Group 3 – Focus Skill and Activity</b></p>	<p><b>Group 4 – Focus Skill and Activity</b></p>
<p>The students will be going through addition and subtraction of fractions with unlike and common denominators. They will be doing this individually and work through it on a piece of paper. To check if they got the right answer, they will flip over the card. They will turn these in once they are done with the rotation.</p>	<p>The students will be working with task cards that only have the addition or subtraction fraction problems with common denominators. They will be working through the problems individually on a piece of paper and then will flip the card over to see if they got it right. If they did not, they will re-do the problem after looking on the steps on the back of the card. They will turn it in once their rotation is done.</p>

### Day 3

<p><b>Focus Standard: 5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, by using visual fraction models and equations to represent the problem.</b></p> <p><b>Focus Objective: At the end of the day, the students will solve words problems involving addition and subtraction of fractions with visual fraction models to represent the problem.</b></p>	
<p><b>Work with Teacher</b></p>	
<p><b>Group 1 (Proficient) – Focus Skill and Activity</b></p>	<p><b>Group 2 (Above Proficient) – Focus Skill and Activity</b></p>
<p>I am going to begin with a small quiz of reviewing the terms with the students. I want the students to be able to know if they are going to add or subtract with some key clues in the word problem. Then, we will practice some addition and subtraction word problems with common denominators using a white board. The students will be using their fraction bars to help visualize how much each part of the problem is worth.</p>	<p>We are going to finding the answers to word problems in addition and subtraction with unlike denominators using task cards. The students will verbally be talking to the group about how they got the answer to the problem. One person will do that for each problem.</p>
<p><b>Group 3 (Approaching Proficient) – Focus Skill and Activity</b></p>	<p><b>Group 4 (Below Proficient) – Focus Skill and Activity</b></p>
<p>We will review what some of the clues that are in the word problems to tell us if we need to add or subtract to find the answer. We will then review these in some problems. Then the students will start solving the problems with common denominators. We will be using the fraction bars to show how much each part of the problem is worth.</p>	<p>I am going to walk through each step, with the students modeling me on their whiteboards of how to add or subtract fractions with unlike denominators. Then, I will have the student's practice. We will be using the fraction bars to show how much each part of the problem is worth.</p>
<p><b>Work with Technology</b></p>	
<p><b>Group 1 – Focus Skill and Activity</b></p>	<p><b>Group 2 – Focus Skill and Activity</b></p>
<p>The students will go on the website splashlearn.com. They will focus on playing a game with an addition or subtraction fraction word problem with common denominators.</p>	<p>The students will go on the website splashlearn.com. They will focus on playing a game with an addition or subtraction fraction word problem with common and unlike denominators.</p>
<p><b>Group 3 – Focus Skill and Activity</b></p>	<p><b>Group 4 – Focus Skill and Activity</b></p>

<p>The students will go on the website splashlearn.com. They will focus on playing a game with an addition or subtraction fraction word problem with common denominators.</p>	<p>The students will go on the website splashlearn.com. They will focus on playing a game with an addition or subtraction fraction problems with unlike and common denominators.</p>
<p><b>Independent Practice</b></p>	
<p><b>Group 1 – Focus Skill and Activity</b></p>	<p><b>Group 2 – Focus Skill and Activity</b></p>
<p>The students are going to work with a partner and do task cards, but for each card they are either going to put it in a true pile or false pile, because it will have the answer on the task card for them. The students are going to be focusing on adding and subtracting word problems with common denominators.</p>	<p>The students are going to be coloring in a word problem maze. This maze will have unlike denominators and common denominators. The students are going to do their work on another piece of paper.</p>
<p><b>Group 3 – Focus Skill and Activity</b></p>	<p><b>Group 4 – Focus Skill and Activity</b></p>
<p>The students are going to be doing a cut and paste activity. They will be reading a word problem and then deciding if the problem is asking them to do addition or subtraction, then they will tape that on the correct side. They will turn this in when they are done with it.</p>	<p>The students are going to be doing an addition and subtraction fractions color worksheet. They are going to be coloring in the worksheet once they know what the correct answer is. The students will do their work on another piece of paper and then they will turn it in.</p>

## Day 4

<p><b>Focus Standard: 5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, by using visual fraction models and equations to represent the problem.</b></p> <p><b>Focus Objective: At the end of the day, the students will solve words problems involving addition and subtraction of fractions with visual fraction models to represent the problem.</b></p>	
<p><b>Work with Teacher</b></p>	
<p><b>Group 1 (Proficient) – Focus Skill and Activity</b></p>	<p><b>Group 2 (Above Proficient) – Focus Skill and Activity</b></p>
<p>The students are going to be working with whiteboards today. I will want the students to explain to be before had how finding the answer to these problems change when the denominators are not the same. We are going to practice the word problems with unlike denominators.</p>	<p>We are going to be playing a small game of jeopardy. The categories will be word problems in addition with common denominators, subtraction with common denominators, addition with unlike denominators, and subtraction with unlike denominators. The students will keep track of their score on their whiteboard and work out the problems on their whiteboard as well.</p>
<p><b>Group 3 (Approaching Proficient) – Focus Skill and Activity</b></p>	<p><b>Group 4 (Below Proficient) – Focus Skill and Activity</b></p>
<p>The students are going to be working with whiteboards today. I will want the students to explain to be before had how finding the answer to these problems change when the denominators are not the same. We are going to practice the word problems with unlike denominators. I will be watching and writing down who may be having a harder time understanding this.</p>	<p>We are going to create two different sides of the table, one for addition and the other for multiplication. We are going to read some word problems, while looking for those clue words, and decide which side of the table this word problem should be one. Once we decide that, I will want the students to answer the problem. These problems with be with both unlike denominators and common denominators.</p>
<p><b>Work with Technology</b></p>	
<p><b>Group 1 – Focus Skill and Activity</b></p>	<p><b>Group 2 – Focus Skill and Activity</b></p>
<p>The students will be going on the website Khan academy. They will choose to play a game with word problems, focusing on either with common denominators or unlike denominators, whichever they are having more trouble.</p>	<p>The students will be going on the website Khan academy. They will be choosing to play a game about word problems and focusing on how well they can do it.</p>

<b>Group 3 – Focus Skill and Activity</b>	<b>Group 4 – Focus Skill and Activity</b>
The students will be going on the website Khan academy. They will choose to play a game with word problems, focusing on either with unlike denominators.	The students will be going on the website Khan academy. They will choose to play a game with word problems, focusing on either with unlike denominators.
<b>Independent Practice</b>	
<b>Group 1 – Focus Skill and Activity</b>	<b>Group 2 – Focus Skill and Activity</b>
The students are going to be individually filling out a worksheet that has word problems with unlike denominators and common denominators. I will want these students to use the fraction bars if that helps them. They are going to turn in this worksheet once done.	The students are going to be individually filling out a word problem worksheet that has common denominators and unlike denominators one it. The students are going to have more problems on this worksheet. They are going to turn in this worksheet once they are done.
<b>Group 3 – Focus Skill and Activity</b>	<b>Group 4 – Focus Skill and Activity</b>
The students are going to work with a partner and do task cards, but for each card they are either going to put it in a true pile or false pile, because it will have the answer on the task card for them. The students are going to be focusing on adding and subtracting word problems with unlike denominators.	The students are going to be doing a cut and paste activity. They will be reading a word problem and then deciding if the problem is asking them to do addition or subtraction, then they will tape that on the correct side. Then on another piece of paper they are going to solve the questions. They will turn this in when they are done with it.



## Day 5

<p><b>Focus Standard: 5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, by using visual fraction models and equations to represent the problem.</b></p> <p><b>Focus Objective: At the end of the day, the students will solve words problems involving addition and subtraction of fractions with visual fraction models to represent the problem.</b></p>	
<p style="text-align: center;">Work with Teacher</p>	
<p>Group 1 (Proficient) – Focus Skill and Activity</p>	<p>Group 2 (Above Proficient) – Focus Skill and Activity</p>
<p>We are going to be playing a small game of jeopardy. The categories will be word problems in addition with common denominators, subtraction with common denominators, addition with unlike denominators, and subtraction with unlike denominators. The students will keep track of their score on their whiteboard and work out the problems on their whiteboard as well. If we get stuck on a problem, I would like the students to work together to see where they went wrong.</p>	<p>The students are going to be bringing in addition and subtraction of mixed numbers. Therefore, they are going to learn how to change an improper fraction into a mixed number and back to an improper fraction. Then, if they can get further, we are going to bring in addition and subtraction.</p>
<p>Group 3 (Approaching Proficient) – Focus Skill and Activity</p>	<p>Group 4 (Below Proficient) – Focus Skill and Activity</p>
<p>We are going to be playing a small game of jeopardy. The categories will be word problems in addition with common denominators, subtraction with common denominators, addition with unlike denominators, and subtraction with unlike denominators. The students will keep track of their score on their whiteboard and work out the problems on their whiteboard as well. If we get stuck on a problem, I will work it through with them.</p>	<p>We are going to be doing a maze together that has word problems in addition with common denominators, subtraction with common denominators, addition with unlike denominators, and subtraction with unlike denominators. Each student will make the choose of where they want to go in the maze depending on the answer the get.</p>

Work with Technology	
Group 1 – Focus Skill and Activity	Group 2 – Focus Skill and Activity
The students are going to go on education.com. They can either play games with unlike denominator fractions, flipping pancakes fractions, or subtraction or addition with fractions.	The students are going to go on education.com. They can either play games with unlike denominator fractions, flipping pancakes fractions, subtraction or addition with fractions, however I would like these students to play the improper to proper fractions.
Group 3 – Focus Skill and Activity	Group 4 – Focus Skill and Activity
The students are going to go on education.com. They can either play games with unlike denominator fractions, flipping pancakes fractions, or subtraction or addition with fractions.	The students are going to go on education.com. They can either play games with unlike denominator fractions, flipping pancakes fractions, or subtraction or addition with fractions.
Independent Practice	
Group 1 – Focus Skill and Activity	Group 2 – Focus Skill and Activity
The students are going to do a word problem maze. They will do their work on a separate sheet of paper and their answers depend on where they can go next in the maze. They are going to turn both sheets of paper in after they are done.	The students are going to be doing task cards about changing improper fractions to mixed numbers and back with a partner. If one of the students get the answer right, then can make a move in connect 4.
Group 3 – Focus Skill and Activity	Group 4 – Focus Skill and Activity
The students are going to be completing a word problem worksheet, this will have addition and subtraction of unlike denominators and common denominators. They can use their fraction bar manipulatives if they want. They will turn this in once they are finished.	The students are going to be completing a word problem worksheet, this will have addition and subtraction of unlike denominators and common denominators. They can use their fraction bar manipulatives if they want. They will turn this in once they are finished.

Assessment Plan

Formative: Outline differentiation by groups as needed

Summative: Whole Class

The formative assessments are highlighted throughout the days.

The students are going to be taking a test that has addition and subtraction fraction word problems, simplifying fractions, and finding the common denominators. The students are also going to verbally tell me how they know this problem is asking them to add or subtract.