

<b>Grade Level/Course:</b> Grade 3
<b>Lesson/Unit Plan Name:</b> Whole Numbers as Fractions
<b>Rationale/Lesson Abstract:</b> The students will gain understanding of whole numbers as fractions, using multiple manipulatives and visual models.
<b>Timeframe:</b> 4 Days: approximately 60 minute sessions
<b>Common Core Standard(s): Number and Operations - Fractions 3.NF.3c</b> Develop understanding of fractions as numbers. 3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3 = 3/1$ ; recognize that $6/1 = 6$ ; locate $4/4$ and 1 at the same point of a number line diagram.

### Instructional Resources/Materials:

Pencils  
Pattern blocks  
Fraction strips  
Hexagon Recording Sheet  
Fraction Strip Recording Sheets (pages 1 & 2) & Tape  
Open Number Line Recording Sheet  
Warm Up 1 (to be given at the beginning of Day 1)  
Warm Up 2 (to be given at the beginning of Day 4)  
Assessment

### Day One Activity/Lesson:

Begin with Warm Up 1.

#### Review – What is a whole?

Cooperative groups use pattern blocks to model  $1/1$ ,  $2/2$ ,  $3/3$ , and  $6/6$  by filling in one hexagon.

1. The teacher will model by filling in a large square with 4 orange square pattern blocks.
2. Each member of the group will use the pattern blocks to fill one hexagon.

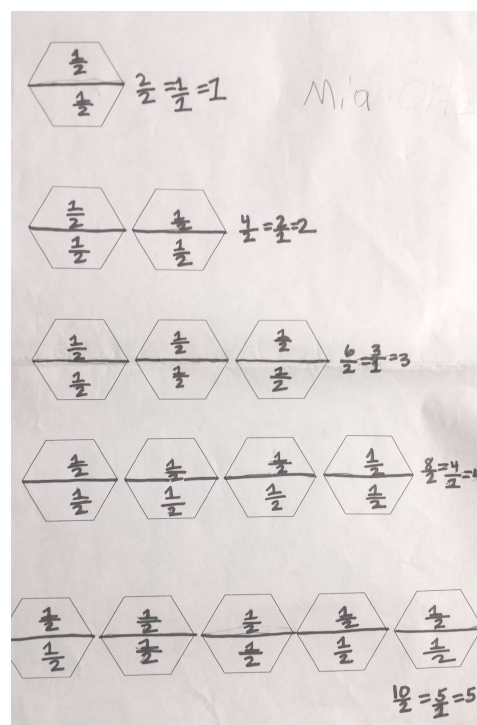
#### Extend-

Members of the group continue to fill 2, 3, 4, and 5 hexagons and writing the fractions for each. Students will label their diagrams on the Hexagon Recording Sheet.

#### Discuss-

As members of the group finish labeling the fractions on the Hexagon Recording Sheet, they will look at the group's charts and make observations. The teacher may need to prompt with questions like, "What do you notice? Describe any patterns that you see."

After sharing observations in groups and as a class, the students will write 3 or more observations in their math journal.



## Day 2 Activity/Lesson continued:

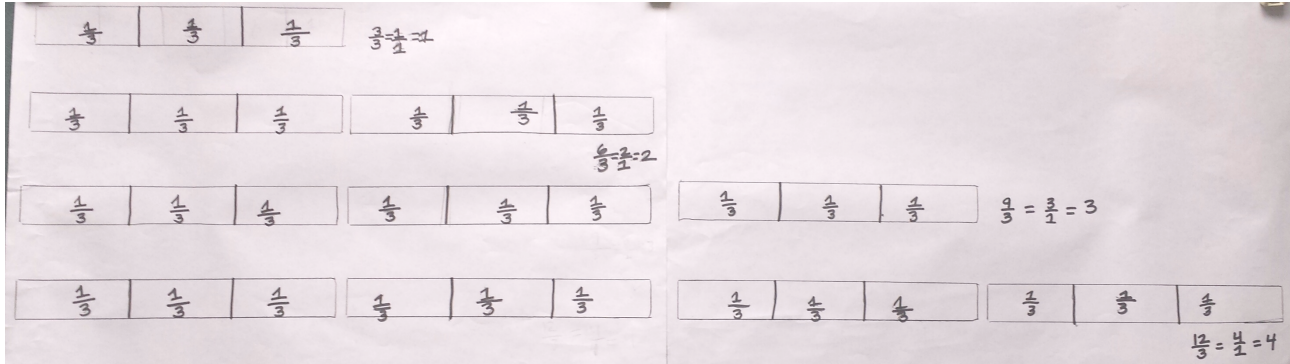
### Connect-

The students will then work together to use fraction strips to show the same fractions ( $1/1$ ,  $2/2$ ,  $3/3$ ,  $6/6$ ) as a bar model. The students will draw and label the models on the Fraction Strip Recording Sheet.

1. The teacher will model by drawing and labeling the example for  $4/4$ .
2. Each member of the group will use the fraction strips to equal one bar.

### Extend-

Members of the group will continue to fill 2, 3, and 4 bars and write the fractions for each. Students will label their diagrams on the Fraction Strip Recording Sheet.



### Discuss-

As members of the group finish labeling the fractions on the Fraction Strip Recording Sheet, they will look at the group's charts and make observations. The teacher may need to prompt with questions like, "What do you notice? Describe any patterns that you see. How are the charts similar?"

After sharing observations in groups and as a class, the students will write 3 or more observations in their math journal.

## Day Three Activity/Lesson:

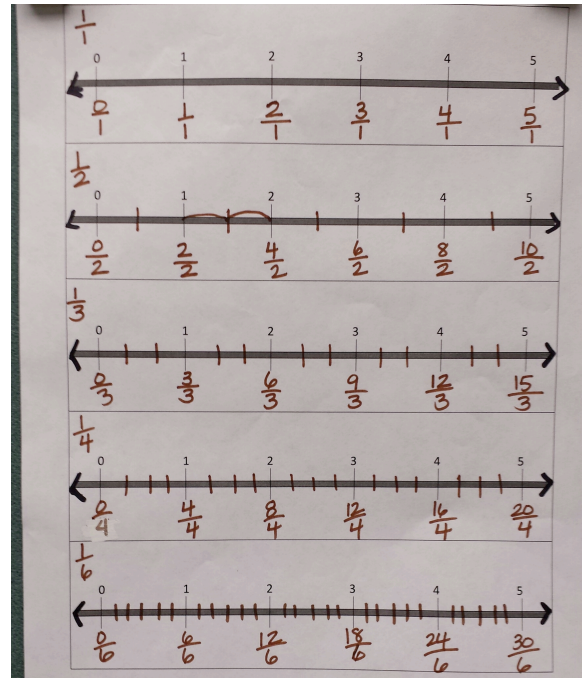
### Transfer-

The students will transfer this knowledge of whole numbers as fractions by placing fractions and whole numbers in the appropriate spots on a number line.

The teacher will begin by asking the students to come up and write one of their fractions on the class number line. After sharing a couple of examples, the students will write the rest of the fractions on their own number line. Give the students approximately 10-15 minutes to work on their own.

### Share and Correct-

Then have the students share with a partner before completing the class number lines. At the end of the session have the students reflect on their own learning in their math journal.



## Day 4 Review & Assessment:

### Review-

For the day's warm up, the students will place fractions in the corresponding whole number rows in the table. (See "Warm Up 2") Have teams discuss why they placed the fractions where they did. Then call students up to the front to place the fractions on the class warm up chart. The students will then reflect on what they have learned about fractions & whole numbers using the "Think, Pair, Share" strategy.

### Assess-

The students will match pattern block models and bar models to represent given fractions. The students will also correctly place given fractions on an open number line and complete a table by writing fractions with their corresponding whole number.

<b>Warm Up 1 A</b> Rewrite the following groups of fractions in order from least to greatest.	<b>Warm Up 1 B</b> Rewrite the following groups of fractions in order from least to greatest.																								
<table><tr><td><math>\frac{1}{2}</math></td><td><math>\frac{1}{8}</math></td><td><math>\frac{1}{4}</math></td></tr><tr><td colspan="3"> </td></tr><tr><td><math>\frac{2}{4}</math></td><td><math>\frac{3}{8}</math></td><td><math>\frac{4}{5}</math></td></tr><tr><td colspan="3"> </td></tr></table>	$\frac{1}{2}$	$\frac{1}{8}$	$\frac{1}{4}$				$\frac{2}{4}$	$\frac{3}{8}$	$\frac{4}{5}$				<table><tr><td><math>\frac{4}{2}</math></td><td><math>\frac{5}{6}</math></td><td><math>\frac{2}{4}</math></td></tr><tr><td colspan="3"> </td></tr><tr><td><math>\frac{10}{2}</math></td><td><math>\frac{8}{4}</math></td><td><math>\frac{9}{3}</math></td></tr><tr><td colspan="3"> </td></tr></table>	$\frac{4}{2}$	$\frac{5}{6}$	$\frac{2}{4}$				$\frac{10}{2}$	$\frac{8}{4}$	$\frac{9}{3}$			
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<b>Warm Up 2 A - Add the following fractions to the table below:</b>				
$\frac{6}{3}$	$\frac{10}{2}$	$\frac{15}{3}$	$\frac{4}{4}$	$\frac{18}{6}$
<b>Warm Up 2 B - Add the following fractions to the table below:</b>				
$\frac{12}{3}$	$\frac{8}{4}$	$\frac{6}{6}$	$\frac{8}{2}$	$\frac{12}{4}$
Fractions equal to 1				
Fractions equal to 2				
Fractions equal to 3				
Fractions equal to 4				
Fractions equal to 5				