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Flour and Fractions (Making Fractions Fun in 4th Grade)

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Stage 1 – Desired Results

Established Goals (e.g., standards)

4.2G relate decimals to fractions that name tenths and hundredths

4.3A represent a fraction a/b as a sum of fractions 1/b, where a and b are whole numbers and b > 0, including when a > b

4.3B decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations

4.3C determine if two given fractions are equivalent using a variety of methods

4.3D compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <;

4.3E represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations

4.3F evaluate the reasonableness of sums

Transfer

Students will independently use their learning to…

calculate the addition and subtraction of fractions and represent fractions through a real-life application task.

Meaning

Understandings

Students will understand that….

We use fractions in our daily lives. examples include baking, shopping telling time.
Fractions represent part of a larger whole.

Essential Questions

How can we represent a part of a whole?

How can we use our knowledge of fractions to compare, order, show equivalence, add and subtract?

Acquisition

Knowledge

Students will know…

- a fraction represents part of a whole
- what the simplest form of a fraction is
- how to compare a fraction
- how to order fractions
- how to add fractions
- how to subtract fractions
- how to convert mixed numbers to improper fractions
- how to convert improper fractions to mixed numbers
- how to use a number line represent fractions
- how to use a number line to order fractions

Skills

Students will be able to…

- represent a decimal as a fraction
- represent fractions with pictures
- generate and identify equivalent fractions
- represent fractions in simplest form
- write fractions as sums of unit fractions
- compare fractions
- order fractions from least to greatest and greatest to least
- simplify fractions
- add fractions and mixed numbers with like denominators
- subtract fractions and mixed numbers with like denominators
- evaluate the reasonableness of the sum or difference of two fractions using benchmark fractions like 0, ¼, ½, ¾ and 1

and differences of fractions using benchmark fractions 0, 1/4, 1/2, 3/4, and 1, referring to the same whole 4.3G represent fractions and decimals to the tenths or hundredths as distances from zero on a number line. 4.1D communicate mathematical ideas, reasoning, and their implications using language as appropriate		- explain their mathematical reasoning.

Stage 2 – Evidence

CODE (M or T)	**Evaluative Criteria** (for rubric)	
	T	Performance Task(s) *Students will demonstrate meaning-making and transfer by…* Students will be asked to use fractions to help cater an event for a bakery. This project will also function as a mini classroom transformation. They will be given the list of goods and the recipes and asked to determine how much of each ingredient the bakery should purchase to make all the goods and how much time it will take to bake all the goods . Through this project, students will convert fractions to simplest form, order fractions from least to greatest, represent fractions with pictures and add and subtract fractions. Sugar Cookies, Snickerdoodles and Cakes! Yum! Project Rubric --- Other Evidence (e.g., formative) Pre-Assessment Independent Work Exit tickets Google Forms Practice problems Task cards (part of math workshop) End of Unit Test Small Group Activities Quizzes

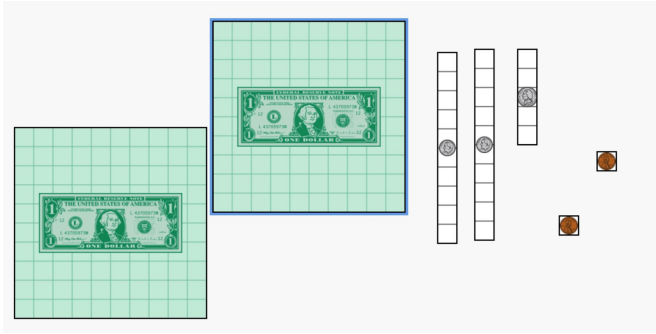
		Small Group Teaching Note: I run a flexible scheduling and workshop model in my classroom so I will be doing mini-lessons in whole group and differentiating my specific instruction for my students based on their needs. Students will also follow the flexible scheduling format through a set of tasks they are to complete. Many of the suggested activities come from Motivation Math, a Mentoring Minds program.

Stage 3 – Learning Plan

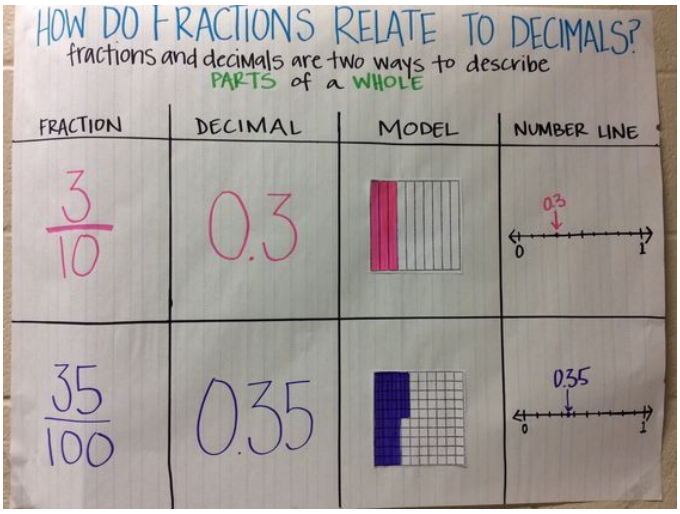
CODE (A, M, T)	Pre-Assessment *How will you check students' prior knowledge, skill levels, and potential misconceptions?* Students will complete a short Pre-Assessment quiz through a Google Slides and Pear Deck presentation. With this method of pre-assessing students' knowledge, the students are immediately engaged and I get student responses in real time.	
	Resources *Fractions, Decimals and Percents* by David Adler *Fractions in Disguise* by Edward Einhorn *Whole-y Cow Fractions are Fun* by Taryn Souders *Fraction Fun* by David Adler *Full House Invitation to Fractions* by Dayle Dodds *Working with Fractions* by David Adler Introduction to Fractions Video Equivalent Fractions Number Rock Video Simplifying Fractions Video Fractions on a Number Line Number Rock Video Adding and Subtracting Fractions Brainpop Video Unit Notes **Tools** play money Hundredths and Tenths Grids blank number lines index cards and post-it notes sentence strips tape to make number lines **Learning Activities** **Week 1** **Day 1: Pre-Assessment** Students will use the Chromebooks to complete an interactive Google Slides/Pear Deck Quiz. Pear Deck provides feedback in real-time and saves each student's scores Read book *Fractions, Decimals and Percents* and discuss with students where they see fractions in everyday life. Make an anchor chart with students.	Progress Monitoring (e.g., formative data)

Day 2: Relating Decimals and Fractions

Show students a picture of a nickel. Ask students what fraction of a dollar this nickel represents. Have them write this on their whiteboard. Then show students a picture of a quarter and ask them what fraction of a dollar a represents. Repeat the process for dimes and pennies. Explain to students that decimals are found often in money. Use the website https://apps.mathlearningcenter.org/money-pieces/ to show different money amounts like the one shown below and have students write the decimal and fraction in their notebook. Model with tenths as well



Then make the following anchor chart and distribute notes to students. Introduce vocabulary to students



Source: https://pefourth.weebly.com/math/previous/2

Independent Work: Students will complete a sort in Google slides matching decimals and fractions.

Small Group Teaching Activities:

Students will each get a hundredths and tenths and color the grid anyway they want. Explain to students that they need to spread out the different colors in the grid. They will then fill out the tables at the bottom of the pages.

Have students use play money and have them write the different fractions and decimals on their whiteboards.

	Task Cards: Students will complete the task cards linked here . Other activities will include practicing math facts on Math Magician, Tang Math activities, Motivation Math Unit 7 work, math games **Lesson Closure:** Show students the following decimals and have them represent them as fractions. 20.03 20.30 23.02 333.33 333.03 333.30 5.55 5.05 5.5 **Day 3: Decimals and Fractions** Before teaching, make a number line on the floor that goes from 0-1. Mark off intervals of 1/10. Give students one of the cards and have students work together to order the fractions on the number line. Discuss strategies of placing the numbers on the number line. complete one activity at a time. Have students practice placing numbers on a number line using the Pear Deck/Google slides presentation Give students notes and have them glue in their math notebook. **Independent Work:** Students will work on the number line activity. **Task Cards:** Students will complete task cards 12-20 **Small Group Teaching Activities Options:** 1. Have students practice representing different decimals and fractions ((0.78, 45/100, 0.26) on the number line template. Have them separate the number line into intervals of tenths. For the money problems, discuss with students how they would have to break up the number line differently. 2. **Intervention:** Have students build a train with 10 unifix cubes. Students will then trade trains with students and then determine the amount of each colored cubes. They will then represent these amounts as decimals and fractions and plot them on the number lines in dry erase sleeves. 3. Tape a number line to the table. Number from 0-3. Give students post it notes with numbers such as 0.6, 75/100, 1 25/100, 2.8, 2.2, 1.06, 1.5 and have them place them on the number line.	

	Lesson Closure: Have students complete the interactive Google slide exit ticket and share with me. Other activities will include practicing math facts on Math Magician, Tang Math activities, Motivation Math Unit 8 work, math games **Day 4: Unit Fractions** Open with the following problem: *Charlie was making different types of cookies and brownies for a bake sale. He needed ⅓ of a cup of flour for the sugar cookies, ⅓ cup of flour for snickerdoodles and ⅓ cup of flour for his cheesecake bites. How much flour did Charlie need in all?* Ask students what they notice about each fraction. Introduce vocabulary **unit fraction: a fraction that has a numerator of 1.** Then have students complete the following problem: *Charlie cut his tray of brownies into 8 equal pieces. He ate one piece and put each remaining piece on a plate.* Show students how we can represent each piece with 1/10 cuisenaire rods online**.** Write an equation with students. Demonstrate with students. Create a stack of 10 books. Have three students each come up and take a book. Ask students how many books were taken by students and how many were left. Represent with an equation that equals 10/10 or one whole. Have students then write equations for the number of books taken and number of books left using whiteboards. Have students complete the two questions in the notes on unit fractions. **Independent Work:** Unit Fraction Practice Problem Page (can be printed or done in google docs) **Activity:** Students will play the Fraction Fishing Adding Unit Fraction game created by A New Day of Learning (bought on TPT) **Small Group Teaching Activities Options:** 1. Have students write the following fractions as sums of unit fractions: ¾ , ⅝ , ⅔ , ⅞ , 9/12 Pose the problem: *Ms. Norman cut a cake into 12 equal pieces. She plans to take some of the cake home. She gives 2 pieces to Mrs. Nederveld, 2 pieces to Mrs. Luedecke, 3 pieces to Mrs. Ammerman and 1 piece to Ms. Barrera. What fractional part of the cake did Ms. Norman give away and what fractional part will be taken home.* Link to Editable Problem 2. **Intervention:** Have students make trains with unifix cubes using either concrete manipulatives or virtual unifix cubes. Students should only use one of each color.	

They will identify the fraction and the number of cubes in their tower and write an equation.

Lesson Closure: On a post it note have students respond to the following question and post on whiteboard: *Ella had 9 cookies. She gave one cookie to each of her four friends friends. Write the amount of remaining cookies with an equation of unit fractions.*

Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 9 work, math games

Day 5: Decomposing Fractions

Review writing fractions as a sum of unit fractions. Give each student a post it note and have them write the fraction as a sum of unit fractions. Discuss that yesterday we broke apart fractions into sums of fractions with ones as the numerators. Review term unit fraction.

Then show students the following unifix cube train. Have them identify what fraction of the unifix cube is blue, what fraction is red, what fraction is green and show students with the blue cubes (3/9) how they could break it up into 1/9 and 2/9. Ask students what they notice about the red and then have them practice with the green. Ask them to decompose the green two different ways on their dry erase board.

Then introduce the term mixed number: a fraction that has a whole number and a fraction

Show students the image below and discuss that it represents the fraction $1\frac{6}{10}$ and ask students how they think we could represent this different ways.

Students will complete the two problems in their notes

Independent Work: Decomposing Fractions Practice Page
Activity: Matching Fractions and their Decomposed Fractions Game. Students will match fractions and fraction equations.

Small Group Teaching Activities Options:

1. Have students divide a piece of paper into 12 different sections. They will then use three colors to color each section. They have to use each color in at least three sections. After coloring their paper, they will identify the fraction and write as many equations as they can decomposing their fraction.
2. Give students Lego bricks that are different colors but the same size. Students work independently to build a tower. Students will then trade and decompose the tower, filling out a table like the one below and drawing a picture.

Color	Number of Lego Bricks

3. **Intervention:** Show students pictures of ⅝ and 3 ⅔ and have students practice writing equations decomposing these fractions.

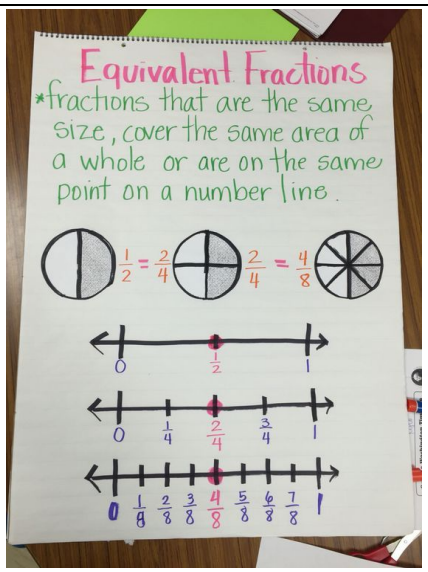
Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 9 work, math games

Lesson Closure: On a post it note have students respond to the following question and post on whiteboard: *Parker had 2 ⅝ cakes. Show two different ways to decompose this fraction. Write an equation and draw a picture.*

Week 2:

Day 6: Equivalent Fractions

Read story *Full House--an Invitation to Fractions* and ask students to share what they remember about fractions. Discuss students what the term equal means and introduce vocabulary tem equivalent fractions-fractions that have the same value even though they have different numerators and denominators Show Number Rock equivalent fraction video and make anchor chart with students



After making anchor chart, pose the problem: *Ethan has 2/4 cup of chocolate chips. Ben has ⅜ cup of chocolate chips. Do they have the same amount of chocolate chips? Why or why not?*
Have students work together to solve this problem.
Distribute notes and have students complete questions in notes.
Independent Work: Equivalent Fractions Practice Page
Task Cards: Students will complete the Equivalent Fraction task cards.
Small Group Teaching Activities Options:

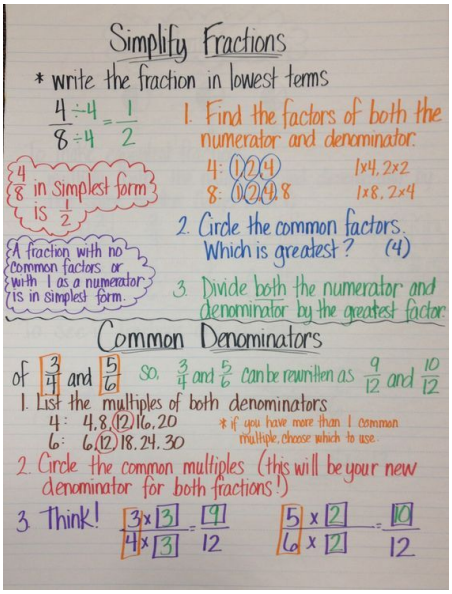
1. Review the Golden Rule of Equivalent Fractions: *Do unto the numerator as you do unto the denominator.*
   Give students cards with fractions on them and have them work together to identify equivalent pairs.
2. Show students pictures of fractions represented and have them identify equivalent fractions.
3. **Intervention:** Play Equivalent Fraction Frenzy. Students will get a fraction cube labeled ½, ¼ , ⅕ , ⅙, ⅛, 1/12 and a dice. One player rolls the fraction cube while the other rolls the die. The students will then work together to create an equivalent fraction by multiplying the numerator and denominator of the fraction rolled by the number on the die.

Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 10 work, math games

Lesson Closure: Have students respond to the following question. *Luke and Matt measured the length of a cake. Luke said the cake was ¼ of a yard long. Matt said the length of the cake was 12/16 yard long. Kelly said that both boys were correct. How is this possible?*

Day 7: Equivalent Fractions
Review equivalent fractions. Students will go on an equivalent fraction scavenger hunt. Cards and clues will be hidden throughout the classroom or building and they will fill out a recording sheet.
Google slides exit ticket

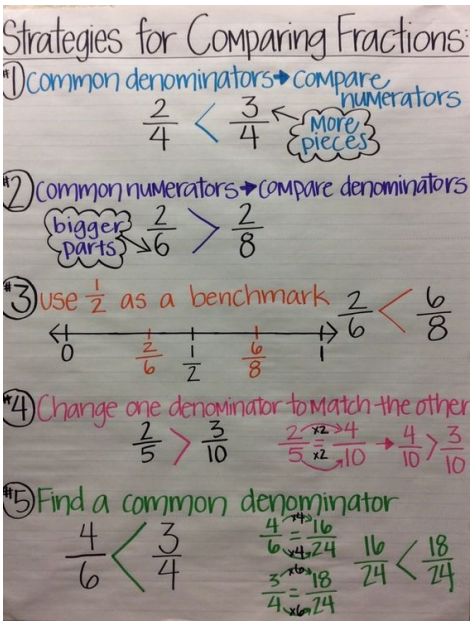
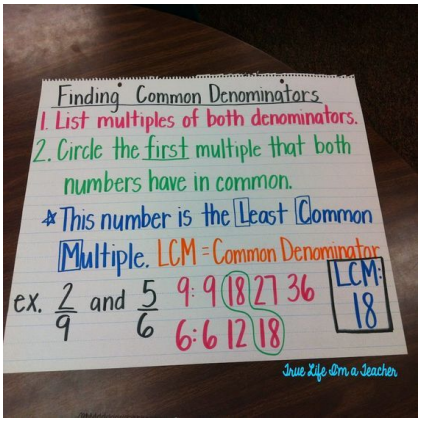
Day 8: Simplifying Fractions
Read story *Fractions in Disguise* by Edward Einhorn and discuss. Then show the students two fractions and ask what they notice. 9/12 and ¾. Discuss that ¾ is the simplest form of 9/12. Then show the Brainpop Video on simplifying fractions.
Pose the problem: *Bob bought an ice cream cake for a party. Each guest ate 4/32 of the cake. Bob said each guest ate ⅛ of the cake. Is he correct?*
Have students work with a partner for a few minutes to solve this problem. Then have a discussion. Explain to students that when we simplify fractions, we always divide the numerator and denominator. Explain that if we can divide the denominator by the numerator, we should start with dividing both by that.
Make anchor chart and distribute notes.



Independent Work: Simplifying Fractions Google Form
Task Cards
Small Group Teaching Activities Options:

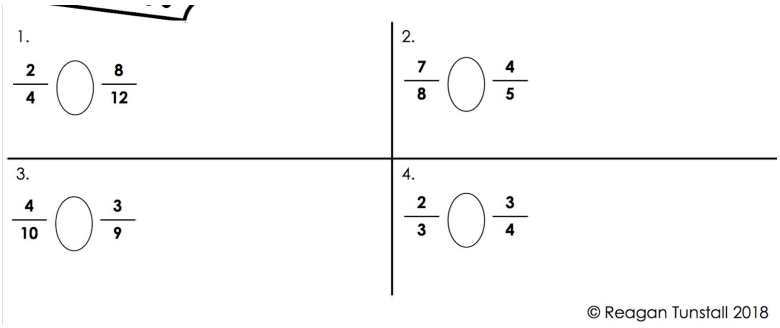
1. Review Simplifying Fractions with a matching card game. Students will work together to match the 10 larger fraction with each of their simplest forms.
2. Practice simplifying fractions as needed with picture models and manipulatives

	Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 10 work, math games Lesson Closure: Have students respond to the following question on an index card. 8 of the 24 students in Ms. Norman's class chose to eat chocolate doughnuts. What fraction of the students chose doughnuts. Write your answer in simplest form and explain how you found your answer. **Day 9: Simplifying Fractions** Play Kahoot game with students to review equivalent and simplifying fractions Equivalent and Simplifying Fractions Kahoot Domino Equivalent Fraction Activity (from Rundes Room)--Give students a tin of dominoes. They will pull a domino from the tin and come write as many equivalent fractions on whiteboards and simplify the initial fraction on the domino if needed. (*For example, if the fraction was 4/6, they would simplify it first*.) Circulate the room while students are doing this. Exit Ticket: Students will respond to the following question on an index card: *Chloe and Bella are riding the carousel. There are 68 horses total on the carousel and 36 of them already have riders. In simplest form, what fraction of horses are left to choose?* **Day 10: Quiz or Test** Students will complete the first quiz of the unit Quiz If time allows, have students research the fundamental law of fractions and make a Google slides presentation to teach it to their peers. **Week 3:** **Day 11: Compare Fractions** Begin by reading *Fraction Fun* by David Adler and discussing. Pose the problem: *Quinn made a shake. She mixed ⅝ cup of ice cream with 3/6 a cup of milk. Did she use more ice cream or milk to make her shake?* Have students work with peers to solve it and then discuss how to solve this problem using number lines. Introduce vocabulary benchmark: a known size or amount that helps you understand a different size or amount	

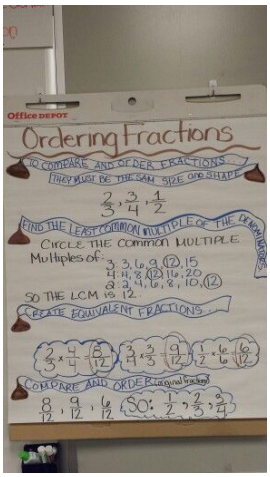
	Model representing the different amounts on a number line and through pictures. Make anchor chart discussing the different ways to compare fractions and distribute notes.  When teaching #5, teach how to find common denominators and the LCM (Least Common Multiple) and have students practice finding the LCM. Introduce vocabulary common denominator, Least Common Multiple  Whole Group: Model comparisons with 6/10 and 4/6, 3/10 and ½, ¼ and ⅛ , 2/6 and 4/6 , ⅜ and ⅝ **Independent Work:** Comparing Fractions in Google slides Comparing Fractions Practice Task Cards: Students will complete the comparing and ordering fractions task cards. **Small Group Teaching Activities Options:** 1. To review, draw two identical number lines labeled 0 to 1. Represent the fraction ¾ on one number line and ½ on the other. Draw a line representing these fractions and	

	place dot on ¾ and ½. Ask students which line is longer, what the length of the line tells us about the fraction and how we would compare them. Repeat the process with ⅜ and 2/6. 2. **Intervention:** Have students practice comparing fractions with pictures or have students build fractions and compare them with fraction circles. Review finding Least Common Multiples 3. Show students 5-6 fraction comparison number sentences and have them work together to determine if they are correct or not. Students will have to explain their reasoning. Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 11 work, math games. Students will also work on a Google slides presentation explaining the 5 different ways to compare fractions. Lesson Closure: Have students respond to the following question. *Joe and Clark each bought a bag of Skittles at the baseball concession stand. Joe ate 3⁄4 of his bag, and Clark ate 5/10 of his bag. Compare the fractions that each boy ate using <, >, or =.* Have them write their answer on an index card and give to me. **Day 12: Compare Fractions** Begin lesson by having students complete the interactive Pear Deck/Google slides activity. Opening Activity Based on responses from activity, review comparing fractions as needed. Distribute cards to students with fractions on them. Show a fraction on the screen and have students move to the corner of the room that says “More than” if their fraction is more than the one shown or move to the corner that says “Less than” if their fraction is less than the one shown. **Independent Work:** Comparing Fractions Practice Page students will turn in Task Cards: Students will continue working on their task cards from yesterday as necessary **Small Group Teaching Activities Options:** 1. Review with small groups based on students’ needs. Generate fractions and have students practice comparing using methods such as number lines and pictures.	

Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 11 work, math games. Students will also work on a Google slides presentation explaining the 5 different ways to compare fractions.
Lesson Closure: Students will complete the comparing fractions exit ticket from Reagan Tunstall's exit ticket pack on TPT



Day 13: Order Fractions
Begin lesson by breaking up students into groups of 4-5. Each student will be given a fraction a post-it note and a blank number line in a dry erase sleeve.
Students will be given 5-6 minutes to work together to order their fractions on the number line as part of a productive struggle. After giving students time to order their fractions, have them share what is what like to order the fractions and strategies they used. Collect the dry erase sleeves for formative assessment.
Then pose the problem: *A recipe for Trail Mix includes 3/10 cup of sunflower seeds, ½ cup of raisins, and ⅜ cup of granola. Show the amounts in order from least to greatest.*
Discuss with students the steps we would need to take to solve this problem. Make anchor chart and distribute notes to students



Have students then work with a partner to solve: *A recipe for ice cream includes ¾ cup milk, ⅓ cup cream, and ⅛ cup sugar. Order*

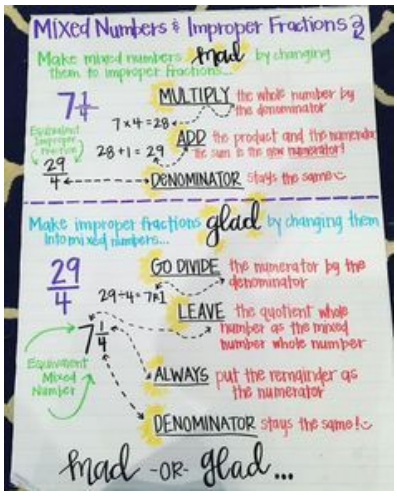
	the amount of ingredients from least to greatest. Students will work with a partner to solve. **Independent Work:** Ordering Fractions Independent Activity on Google Slides Task Cards: Students work on ordering fractions task cards (continue from Day 11) **Small Group Teaching Activities Options:** 1. Give each student a fraction on a post-it note and have the group of students work together to order the fractions on the blank number line template. Review finding least common multiples and changing fractions to ones with the same denominator as necessary. 2. Give a student a recipe with different amounts of ingredients and have them work to list them in order from least to greatest *Example: Trail Mix: ⅓ cup of M&Ms, 2/8 cups of almonds; ⅝ cups pretzels; 3/12 cup of dried cranberries* Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 11 work, math games. Students will also work on a Google slides presentation explaining the 5 different ways to compare fractions and **steps to order fractions** **NOTE:** If having students do their presentations add this to their list of things to do. Lesson Closure: Students will be asked to respond to this question: *Three potatoes weigh ¼ pound, ⅝ pound, and ½ pound. List the weights in order from least to greatest.* **Day 14: Order Fractions** Begin with a warm-up problem: *Rachel, Nancy, and Diego were in a fishing competition. Rachel's fish was ⅞ foot long, Nancy's fish was ¼ foot long, and Diego's fish was ½ foot long. Order the three friends' fish lengths in order from least to greatest.* Using anchor chart from yesterday, review steps to order fractions. Play Comparing and Ordering Fractions Trashketball Game with students. Template was bought from TPT Comparing and Ordering Fractions Game Students will complete the ordering fractions practice page and turn in Ordering Fractions Practice Page Review with small groups as needed while they are working on this practice page.	

Lesson Closure: Ask students to respond to the question: *A third grader asks you how to order fractions. How would you respond?*

Day 15: Quiz
Based on results from yesterday's practice page, review ordering fractions as needed.
Students will take quiz for a grade.

After: Give students dice and have them play the Roll a Dice fraction game in groups of three. Each student will roll two dice and create a fraction. They will then work together to order the fractions from least to greatest and fill out the recording sheet
Roll the Dice Ordering Fraction Game Recording Sheet

Week 4:
Day 16: Improper Fractions to Mixed Numbers
Begin by giving students at each table an index card with an improper fraction and ask them to talk at their table about what they notice about each of the fractions. Students should say that the numerator is greater than the denominator. Explain that we cannot have a numerator greater than the denominator. Choose one of the fractions and model this with pictures. Then ask students how many wholes and how many parts we would have. Ask how they notice how it turns into a mixed number.
Begin making anchor chart for making improper fractions GLAD and distribute notes.
Complete a few examples with students.



Independent Work: Students will complete a Google slides matching the improper fraction to the mixed number.
Task Cards 1-10

Small Group Teaching Activities:

1. Teach students how to determine the improper fraction a word problem such as the following: *To weave a bracelet, Charlene needs 7 pieces of brown thread. Each piece of thread must be 1/3 yard long. How much thread should she buy to weave the bracelet?*
2. Give each student an index card with an improper fraction. Have them practice converting the improper fraction to a mixed number using the GLAD method.
3. Have students roll two dice and create an improper fraction. They will then work on completing the recording sheet
4. Practice converting improper fractions on whiteboards

Lesson Closure: Have students convert each of these improper fractions to mixed numbers on an index card and turn in

1) $\frac{32}{9} =$ ____ 2) $\frac{37}{8} =$ ____

4) $\frac{14}{3} =$ ____ 5) $\frac{33}{10} =$ ____

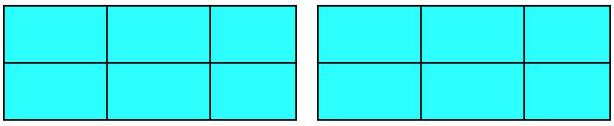
Other activities will include practicing math facts on Reflex Math, Tang Math activities

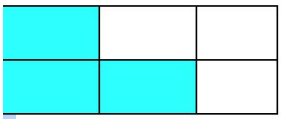
Day 17: Mixed Numbers to Improper Fractions

Open lesson by having students convert the improper fraction on the board to a mixed number. They will write their answer on a post it note and post under the question on the board.

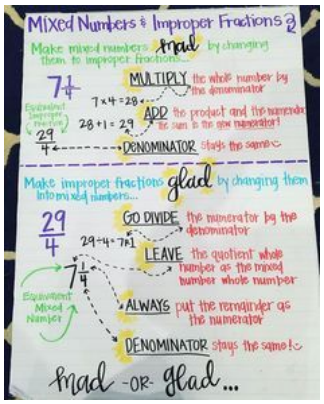
Discuss how yesterday we made improper fractions GLAD by making them mixed numbers. We can make mixed numbers MAD by making them improper fractions.

Show a picture of two mixed number fractions and ask them to count up the total amount of pieces. For example, in the picture below, each whole is divided into 6 pieces. We have 2 wholes=12 pieces and then 3 of the 6 in the last whole. That would be 15/6=2 3/6





Continue making anchor chart and explain how we multiply the denominator by the whole number and add the numerator. The denominator stays the same.



Have students complete a few examples on their whiteboards

$7\frac{1}{3}$

$5\frac{4}{5}$

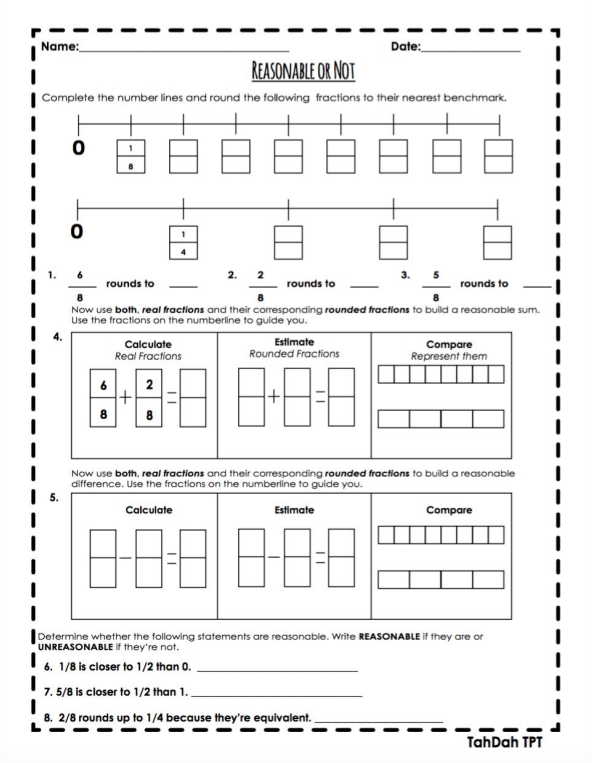
$8\frac{3}{5}$

Students will then complete the examples in their notes.
Independent Work: Students will complete a Google slides where they type the improper fraction for the mixed number. They will also complete the quiz when done.
Task Cards 11-20

Small Group Teaching Activities:

1. Teach students how to determine the mixed number in a word problem and solve such as the following: *A box of cereal contains 4 ¾ cups of cereal. Each serving is ¼ cup. How many servings of cereal are in the box?* Discuss how to solve this problem
2. Give each student an index card with a mixed number fraction. Have them practice converting the mixed number fraction to an improper fraction using the MAD method.
5. Have students roll three dice. The first roll will represent the whole number. The students will then make the fraction with the next two dice rolled.
   Game Recording Sheet
6. Practice converting mixed numbers on whiteboards

	Lesson Closure: Have students convert each of these mixed numbers to an improper fraction on an index card and turn in. $7\frac{1}{4}$ = ____ 14) $4\frac{1}{2}$ = ____ 15) $9\frac{1}{8}$ = Other activities will include practicing math facts on Reflex Math, Tang Math activities **Day 18: Adding and Subtracting Fractions Reasonableness Mini-Lesson** Pose the problem: *Kelsey had two trays of brownies. Her family ate ¾ of a tray of brownies one day and 2/4 the next. Kelsey says her family ate more than 1 whole tray brownies. Is her answer reasonable? Why or why not?* Have students work together to solve and then discuss how we could represent this with a number line or pictures. Explain to students what the term reasonable means--the answer is sensible. Explain benchmark fractions such as ¼, ½, ¾ and 1 whole Have students complete the following problems in partners: *Cody mowed ⅛ of his yard on Tuesday. He mowed ⅝ of his yard on Wednesday. Caroline told Cody "You have mowed the whole yard!" Is Caroline's statement true? Why or why not?* *Jack ate ⅜ of a cake. Christian ate 4/6 of the cake. The boys say they ate less than 1 cake. Is their answer reasonable? Why or why not?* Students share out explanations after working on each problem. Independent Work: Reasonable or Not Activity from TahDah on TPT (free when I bought it)	



Name:_____ Date:_____

REASONABLE OR NOT

Complete the number lines and round the following fractions to their nearest benchmark.

0 1/8

0 1/4

1. 6/8 rounds to ____ 2. 2/8 rounds to ____ 3. 5/8 rounds to ____

Now use **both**, ***real fractions*** and their corresponding ***rounded fractions*** to build a reasonable sum. Use the fractions on the numberline to guide you.

4. Calculate *Real Fractions* 6/8 + 2/8 = ; Estimate *Rounded Fractions* + = ; Compare *Represent them*

Now use **both**, ***real fractions*** and their corresponding ***rounded fractions*** to build a reasonable difference. Use the fractions on the numberline to guide you.

5. Calculate – = ; Estimate – = ; Compare

Determine whether the following statements are reasonable. Write **REASONABLE** if they are or **UNREASONABLE** if they're not.

6. 1/8 is closer to 1/2 than 0. _____

7. 5/8 is closer to 1/2 than 1. _____

8. 2/8 rounds up to 1/4 because they're equivalent. _____

TahDah TPT

Activity: Fraction Games from Games4Gain.com

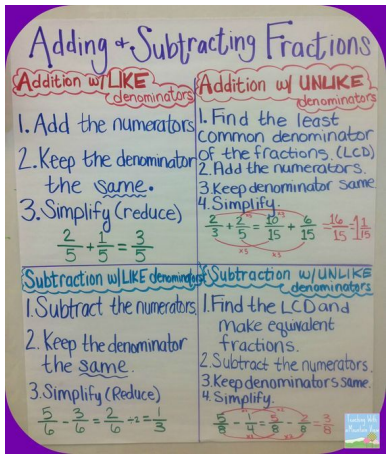
Small Group Activities:

1. Have each student use a sentence strip to represent a number line and label the number line at the following points: 0, ¼, ½, ¾ and 1. Have them label another number line with halves, thirds, fourths, fifths, sixths, eighths and tenths.
   Pose the problem: *Dylan connects two pieces of construction paper without overlapping the ends. One piece is ¼ yard long and the other is 2/10 of a yard long. Is the total length of Dylan's connected paper less than ½ yard, between ½ and ¾ , between ¾ and 1 yard or longer than 1 yard.*
   Have students model the word problem and solve.
2. Show students a set of ten fractions. Discuss where the fractions would be on the number line. Students record fractions on index cards and note their location on the back of an index card (Ex: close ½). Have students make an addition sign card too. Model addition equations and have students find a reasonable estimate of the sum of the two fractions and explain why.
3. Say statements such as 9/10 + ⅗ is less than 1. The difference of 9/10 and ⅘ is less than ½ . Have students use cuisenaire rods to determine if these answers are reasonable.

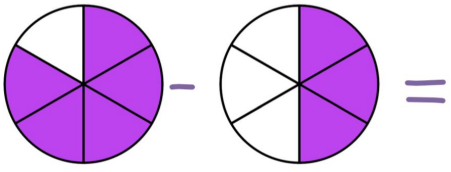
Lesson Closure: Pose the problem: *In Martha's class, ⅝ of the students walk to school and ⅛ of the students ride the bus. Martha added the fractions and found the sum was ⅛. Is Martha's answer reasonable? Why or why not?*
Have students respond to the problem on an index card and turn in.

Other activities will include Motivation Math Unit 13, practicing math facts on Reflex Math, Tang Math activities

Day 19: Add and Subtract Fractions
Distribute cards with pictures of fractions to partners and have them work together to determine what total fraction is shaded. Have them write their answer on a whiteboard.
Have one partner group bring their pictures up and show under document camera. Represent the addition equation for students
Begin making anchor chart and distribute notes to students. Explain that we only add the numerators and that the denominator always stays the same.



Repeat process for other pictures and show subtracting fractions



$\frac{3}{3} - \frac{1}{3}$

Show Adding and Subtracting Fractions Brainpop Video
Independent Work: Adding and Subtracting Fractions with Word problems work
Task Cards:
Small Group Teaching Activities Options:

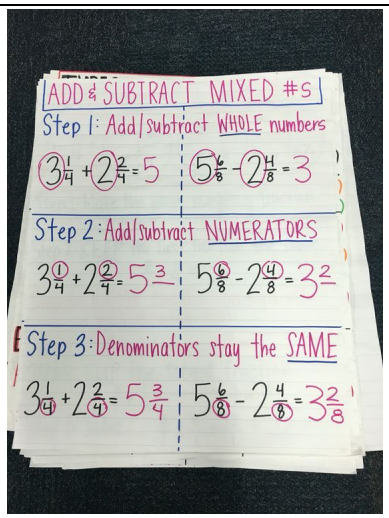
1. Have students draw a card numbered 7-12. The card drawn will be their denominator They will then receive two dice. They will use these numbers as the numerator to add the two fractions. If needed they will simplify their fraction.Students create a table like this:

Round #	Denominator	Fraction 1	Fraction 2	Addition Equation

2. Give students a copy of a recipe with like denominators and ask them to calculate how much of each ingredient they would need if they doubled the recipe. Tripled the recipe. Ask how much more of one ingredient would be needed. Pose hypothetical situations such as *If I needed 6/8 of a cup of sugar, but I only had ⅛ cup, how much more sugar would I need?*
3. Intervention: Model adding and subtracting fractions on a number line or using fraction circles. Walk through some examples with students.

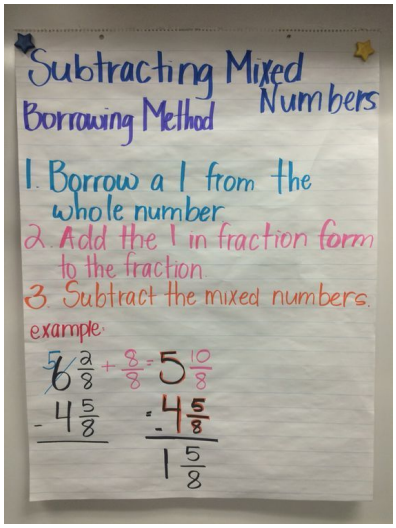
Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 12 work, math games.
Lesson Closure: Have students complete an exit ticket

Day 20: Add and Subtract Mixed Numbers
Watch video to review concept with students.
Adding and Subtracting Fractions Brainpop Video
Pose the problem: *Julia ate 2 ⅗ of a candy bar. Emma ate 1 ⅕ of a candy bar. How many candy bars did they eat all together?*
Give students a few minutes to work with a partner on solving this problem.
Discuss the steps of adding and subtracting mixed numbers and make anchor chart.



Then have students practice with a few problems.
1 ⅝ + 7 ⅝
4 ⅔ - 3 ⅓

Pose the problem: *For a candy recipe, Karen will need 4 ⅜ cups of dark chocolate chips and 5 2/8 cups of milk chocolate chips. How many more cups of dark chocolate chips will Karen need?*
Write an equation on the board and ask students what they notice about the numerators. Introduce borrowing method for mixed numbers.



Have students practice with 3 ⅛ - 2 5/8 . Have them solve on whiteboards. Distribute notes and model the borrowing method.

Independent Work: Adding and Subtracting Mixed Numbers work
Activity: Continue **task cards** from adding fractions. (11-20)
Small Group Teaching Activities Options:

	4. Have students draw 2 whole number cards and 2 fraction cards. Have them work together subtract and add the fractions on their whiteboards. Note: Write whole numbers and fractions on index cards. There should be 2 of each for each student. Students will then draw their cards. 5. Give students copies of recipes with mixed numbers with like denominators and ask them to calculate how much of each ingredient they would need if they made all of the recipes. Ask how much more they would need for one recipe than the other. 6. Intervention: Show pictures of mixed numbers and have students practice adding and subtracting with picture models before moving on to other problems. Other activities will include practicing math facts on Reflex Math, Tang Math activities, Motivation Math Unit 12 work, math games. Lesson Closure: Have students respond to the following questions on an index card and turn in 1. *Cole used 1 ⅓ cups of sugar and 2 ⅓ cups of flour for his dessert. How many cups did he use altogether?* 2. *Laura is making a necklace. She has 7 ⅛ feet of string. She only uses 3 ⅜ feet of string. How much string is left?* **Week 5** **Day 21: Add and Subtract Fractions/Mixed Numbers** Students will play a Trashketball game to review adding and subtracting fractions and complete a scavenger hunt quiz Scavenger Hunt Quiz Closure: Have them solve the following two problems on an index card: *Andrew used 1 and 2/12 of a carton of eggs for a cake and 8/12 of a carton for egg salad. He bought three cartons of eggs. What fraction of eggs does Andrew have left?* **Day 22: Review with Trashketball or Kahoot** Review all concepts from this unit with a Trashketball game or Fraction Escape Room (I bought my escape room from TPT--Cracking the Classroom Code escape rooms) **Days 23-24: Performance Task** Explain to students that they have been learning a lot about fractions the past 4 and ½ weeks. They will be applying their knowledge of equivalent fractions, simplifying fractions, adding and subtracting fractions to complete a project. Introduce project to students.	

	Distribute handouts. Students will work on performance task **Day 25**: Continue performance task if needed or unit test	