

The background of the slide features several clear plastic containers filled with colorful, oval-shaped candies in shades of green, yellow, orange, blue, and white. The candies are scattered across a light-colored surface, with some containers in the foreground and others in the background, creating a vibrant and playful atmosphere.

DIVIDING FRACTIONS

Special Ed

ALSO INCLUDES GOOGLE SLIDES



This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader and lacks many prerequisite math skills needed for math. With some support, he is able to do this unit and enjoys the challenge. He is my tester!!

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71-72	Terms of use

In a separate files:

- Lesson plans
- Directions and links to digital version of the activities

This unit contains almost 100 pages of material. But, don't worry!! I have included a **11 day lesson** plan to help you make the most of everything packed in this unit.

Dividing Fractions Lesson Plan

Preparation

- Print out a vocabulary board for each student to use throughout unit
 - Laminate or place in page protector
- Book
 - Print out, laminate, and bind
 - OR your students can listen to the pre-recorded version
 - I highly recommend using the movie version of the book (see direction for digital activities for link) since it is animated and narrated
- Power cards
 - Print out a set of cards for each student
 - Mount on index cards and laminate or cover with packing tape
- Vocabulary cards
 - Print out a set of vocabulary cards for each student onto cardstock, cut out and laminate
- For the jellybean party
 - You will need small cups (at least 18)
 - You will need 6 cups of jellybeans, or you can use dried beans

Preassessment (do day 1 before starting lesson)

- Use the quiz as the preassessment
- I cannot emphasize enough how important this step is. If you want to see growth, this preassessment is so important!!

Teaching Tips

1. *Color Coding*: this is a really easy way to add more structure to a matching activity. Outline or color in an empty box or sorting label. Outline or color in the corresponding picture symbols the same colors. Becomes a color matching task.
 - a. For more info, read more here:
<https://specialneedsforspecialkids.org/2015/09/05/using-color-coding-for-differentiation/>
 - b. I also have a blog post on differentiating one activity 3 ways:
<https://specialneedsforspecialkids.org/2018/10/22/differentiating-1-activity-3-ways-easily-and-effectively/>

The lesson plans contain:

Overall tips for teaching students with significant needs and who may lack some pre-requisite skills.

Quick Look

Day	Activity	Day	Activity
1	<ul style="list-style-type: none">• Book• Vocabulary board intro• Vocabulary card intro• Power card intro• Jellybean party• Worksheet (no simplification)	7	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (dividing with whole numbers)
2	<ul style="list-style-type: none">• Book• Vocabulary card review• Intro power cards• Jellybean party• Worksheet (no simplification)	8	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (dividing with whole numbers)
3	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (simplify proper fractions)	9	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (dividing with mixed numbers)
4	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (simplify proper fractions)	10	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (dividing with mixed numbers)
5	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (simplify improper fractions)	11	<ul style="list-style-type: none">• Quiz
6	<ul style="list-style-type: none">• Book• Vocabulary card review• Jellybean party• Worksheet (simplify improper fractions)		

The lesson plans contain:

A quick look at what you will do each day.

Day 7-8

Activity	Notes	Materials
Read or listen to the movie version of the book (10 minutes)	<ul style="list-style-type: none">• Read through the story, asking lots of questions• Continue to make connections between book and vocabulary board	<ul style="list-style-type: none">• Book• Vocabulary board
Vocabulary cards (5 minutes)	<ul style="list-style-type: none">• Review the vocabulary cards• Draw fractions on board and have students come up to circle the dividend, the divisor, and the quotient	Vocabulary cards
Power card (5 minutes)	<ul style="list-style-type: none">• Review the power card with steps of how to divide fractions• Write equations on board and have students come up to identify what they would keep, flip and switch	<ul style="list-style-type: none">• Power cards
Group activity (10 minutes)	<ul style="list-style-type: none">• Follow the directions and have a jellybean party	<ul style="list-style-type: none">• Party template• beans• cups
Worksheet review (5 minutes)	<ul style="list-style-type: none">• Review the worksheets completed yesterday	<ul style="list-style-type: none">• Dividing fractions worksheets
Divide fractions with simplification (10 minutes)	<ul style="list-style-type: none">• Students will complete 1-2 of the worksheets where they are dividing fractions contain whole numbers and need to be simplified.• You may need to go back and review how to convert a whole number into a fraction covered in the Subtracting Fractions Unit• Still review the steps of deciding if it needs to be simplified.• Refer to power cards	<ul style="list-style-type: none">• Dividing fractions worksheets (pgs. 56-58)
Sharing (10 minutes)	<ul style="list-style-type: none">• Each student shares one of their finished worksheets with the group using the communication method of their choice	<ul style="list-style-type: none">• Completed worksheets• Communication devices

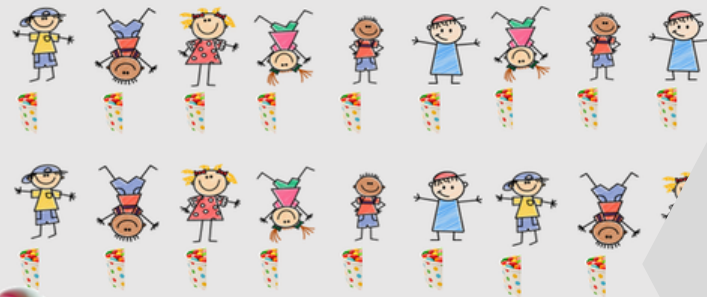
The lesson plans contain:

Detailed instructions on how that day's lesson should run including group and individual activities.

Your mom says you can have a party as long as everyone who comes gets the same amount of jellybeans. She gives you enough money to buy 6 cups of jellybeans.



If you have 6 cups of jellybeans, and you give each friend $\frac{1}{3}$ cup, then you can invite 18 friends!!



Phew, that is probably more kids than your mom was expecting to have at a party.

Let's see how that worked with our jellybean party when each person would get $\frac{1}{2}$ cup of jellybeans.

$$6 \div \frac{1}{2} = ?$$

$$\frac{6}{1} \div \frac{1}{2} = ?$$

Remember, you can turn any whole number into a fraction by placing it over 1.

$$\frac{6}{1} \times \frac{2}{1} = ?$$

Keep, change, flip

$$\frac{6}{1} \times \frac{2}{1} = \frac{12}{1} \rightarrow 12 \text{ kids}$$





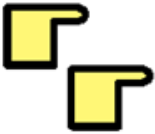

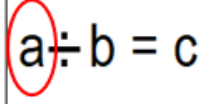
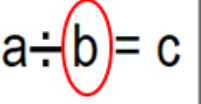
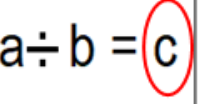
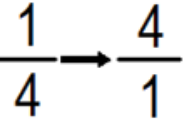










This unit contains a book that is 35 pages and covers the steps of dividing fractions as well as simplifying your answer. Students are also shown what dividing fractions look like using real-world examples.

It comes in a pdf version as well as an mp4 version that is animated and narrated.

This unit comes with a vocabulary board.

Vocabulary boards are great for ALL students to assist with participation and engagement in group discussions.

Tips on how to use in the unit!!

 fraction	 numerator	 denominator	 total quantity	 portion size
 # kids	 dividend	 divisor	 quotient	 reciprocal
 keep	 change	 flip	 divide	 simplify
 repeat that	 yes	 no	 I don't know	 I need a break

Step by step cards for dividing fractions. Made to fit on 4x6 index card.

- Print on cardstock and laminate
- Glue together back-to-back

Dividing fractions

1. **Keep** the first fraction the same
2. **Change** the sign
3. **Flip** the second fraction
4. Multiply the fractions
5. Simplify if needed

Example: $\frac{1}{4} \div \frac{2}{3}$

- 1 $\frac{1}{4} \div \frac{2}{3} = ?$
- 2 $\frac{1}{4} \times \frac{2}{3} = ?$
- 3 $\frac{1}{4} \times \frac{3}{2} = ?$
- 4 $\frac{1}{4} \times \frac{3}{2} = \frac{3}{8}$
- 5 $\frac{3}{8}$ ✓

Step by step cards for multiplying fractions. Made to fit on 4x6 index card.

- Print on cardstock and laminate
- Glue together back-to-back

Multiplying fractions

1. Multiply the numerators
2. Multiply the denominators
3. Simplify if needed

Example: $\frac{1}{4} \times \frac{2}{3}$

- 1 $\frac{1 \times 2}{4 \times 3} = \frac{2}{12}$
- 2 $\frac{2}{12} \div \frac{2}{2} = \frac{1}{6}$
- 3 $\frac{1}{6}$

Step by step cards for simplifying a mixed number. Made to fit on 4x6 index card.

- Print on cardstock and laminate
- Glue together back-to-back

Simplify an Improper Fraction

1. Divide the numerator by the denominator.
2. Write down the largest whole number you get.
3. Place the remainder in the numerator.
4. Keep the denominator the same

Example:

$\frac{9}{5}$

- 1 $5 \overline{)9} \longrightarrow$ 2 1
- 2 $5 \overline{)9} \longrightarrow$ 4 $1 \frac{4}{5}$
- 3 $\frac{5}{4}$

Step by step cards for turning a mixed number into an improper fraction. Made to fit on 4x6 index card.

- Print on cardstock and laminate
- Glue together back-to-back

Mixed number >> improper fraction

1. Multiply the whole number and denominator.
2. Add the numerator.
3. New numerator is answer. Keep denominator the same

Example:

$3 \frac{2}{5}$

- 1 $3 \times 5 = 15$
- 2 $15 + 2 = 17$
- 3 $\frac{17}{5}$

There are 4 power cards that outline the steps needed for dividing fractions. They can use when working through problems.

Party theme:

Serving:

Total amount available:

÷

=

total cups
you have

how much each
person will get

number of people
you can invite

÷

=

total cups
you have

how much each
person will get

number of people
you can invite

÷

=

total cups
you have

how much each
person will get

number of people
you can invite

Each day, students will work as a group having a bean party. This will help students visualize how portion size affects the number of people you could invite to a party. There is a template to fill out and directions on how to make this engaging for students.

1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

$$\frac{1}{3} \div \frac{6}{5} = ?$$

1&2

$$\frac{\boxed{}}{\boxed{}} = \boxed{}$$

3 Simplify if needed.

The steps correspond to those on the power cards students will use throughout the unit.

There are 2 worksheets where students divide proper fractions that do not need to be simplified.

$$\frac{2}{5} \div \frac{5}{3} = ?$$

1&2

$$\frac{\boxed{}}{\boxed{}} = \boxed{}$$

3 Simplify if needed.

This unit uses the KEEP, CHANGE, FLIP method when dividing fractions.

1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

$$\frac{2}{3} \div \frac{4}{2} = ?$$

1 & 2

$$\frac{\boxed{}}{\boxed{}} = \boxed{}$$

- 3 Simplify if needed.

Factors of numerator:

Factors of denominator:

greatest common factor =

Final answer = $\frac{\boxed{}}{\boxed{}} \div \frac{\boxed{}}{\boxed{}}$

There are 3 worksheets that practice dividing fractions that have proper fractions as answers that need to be simplified. There is color-coding added for support. Finding the greatest common factor is reviewed in this unit, but is actually taught in my unit on **adding fractions**.

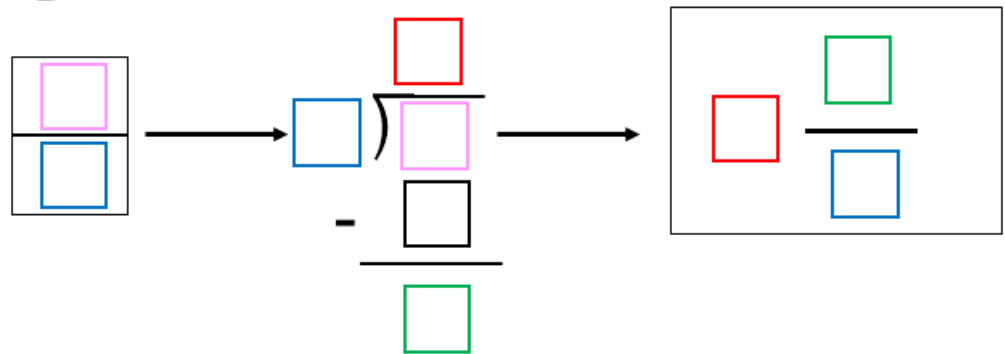
1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

$$\frac{5}{3} \div \frac{3}{2} = ?$$

1 & 2

$$\frac{\boxed{}}{\boxed{}} = \boxed{}$$

3 Simplify if needed.



There are 3 worksheets that practice dividing fractions that have improper fractions as answers that need to be simplified. There is color-coding added for support. Finding the greatest common factor is reviewed in this unit, but is actually taught in my unit on **adding fractions**.

1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

$$2 \div \frac{3}{5} = ?$$

1 & 2

$$\frac{\boxed{}}{\boxed{}} = \boxed{}$$

- 3 Simplify if needed.

There are 3 worksheets that practice dividing whole numbers and fractions that need to be simplified. There is color-coding added for support. How to convert a whole number into a fraction is reviewed in this unit, but is actually taught in my unit on **subtracting fractions**.

1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

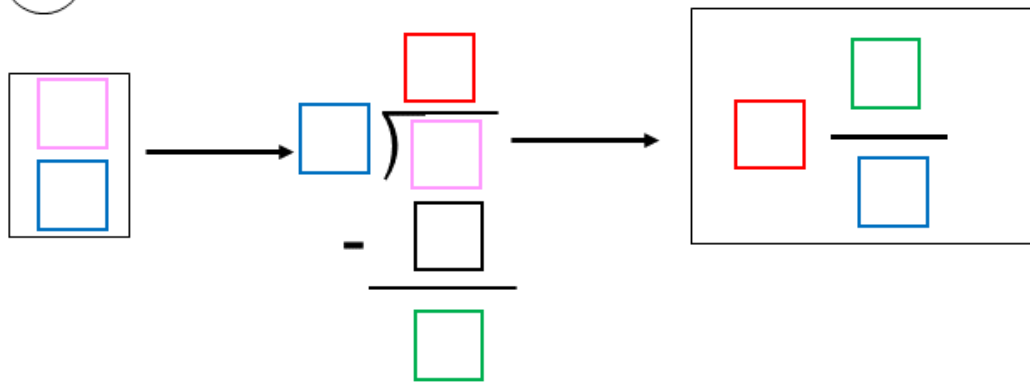
$$2\frac{1}{4} \div \frac{2}{3} = ?$$

- 1 Change the mixed number into a fraction.

New fraction=

2&3 $\frac{\text{[]}}{\text{[]}} = \text{[]}$

- 4 Simplify if needed.



There are 3 worksheets that practice multiplying mixed numbers and fractions that need to be simplified. There is color-coding added for support. How to convert a mixed number into a fraction is reviewed in this unit, but is actually taught in my unit on **subtracting fractions**.

Name: _____

Quiz

1. In order to divide fractions, what needs to be the same?



2. What do you keep the same when dividing fractions?



3. What do you change the + to when dividing fractions?



4. What do you flip when dividing fractions?



5. True or False. You do not need to check and simplify your answer if needed when dividing fractions.



6. Think back to our jellybean party from the book. If you had 6 cups of jellybeans, how many kids could you invite if you gave each kid 2 cups of jellybeans?

6

3

12

7. What could you decrease in order to invite **more** kids party?



8. With you 6 cups of jellybeans, how many kids could you invite if you gave each kid 1/2 cup of jellybeans?

12

3

6

9. Solve this equation (show your work): $\frac{1}{3} \div \frac{6}{5} = ?$

There is a short quiz to use as the assessment.

Watch the movie,
Dividing
Fractions

Dividing Fractions

by Christa Joy

This unit includes digital activities. Part of that is a movie version of the book you can play in a google slide. This movie is animated and narrated.

$$\frac{5}{6} \div \frac{4}{3} = ?$$

1&2

	=	

3

Simplify if needed.

Factors of numerator:	
-----------------------	--

Factors of denominator:	
-------------------------	--

greatest common factor=

--

Final answer=

	÷		
	÷		

1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

There are 2 sets of google slides that include a set where students can type in the answers.

These make a great independent learning center.

$$3\frac{1}{2} \div \frac{3}{5} = ?$$

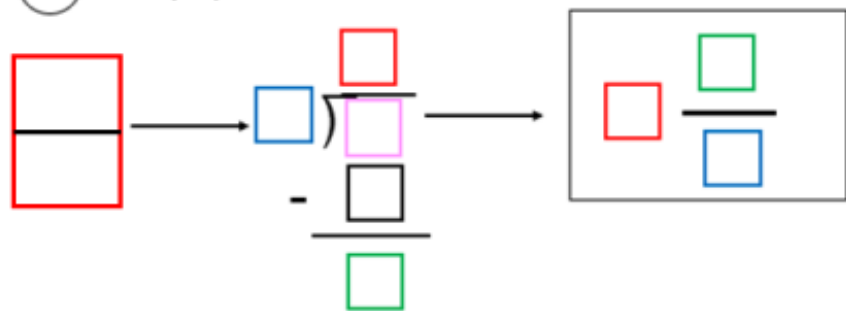
1 Change the mixed number into a fraction.

$$3 \times 2 + 1 = 7$$

New fraction = $\frac{\quad}{\quad}$

2&3 $\frac{\quad}{\quad} = \frac{\quad}{\quad}$

4 Simplify if needed.



1. Change the mixed number into an improper fraction.
2. Rewrite the equation using the keep, switch flip method.
3. Solve equation.
4. Simplify if needed.

$$1 \quad 7 \quad 2 \quad 3 \quad \frac{7}{2}$$

$$\frac{7 \times 5}{2 \times 3} = \frac{35}{6}$$

$$\frac{35}{6} \quad 5 \quad 35 \quad 30 \quad 6 \quad 5$$

One set is differentiated with color and click and drag numbers for students who need more support. In this set, students are NOT typing but clicking and dragging over their answers.



To see my units on adding and subtracting fractions, you can click the links below:

- [Adding Fractions Unit CLICK HERE](#)
- [Subtracting Fractions Unit CLICK HERE](#)