FRACTION CURRICULUM

10 UNITS
22 WEEKS

SPECIAL EDUCATION

For students who:

- are emerging or non-readers
- take alternate assessments
- are in special education
- short-attention span
- lack pre-requisite skills
- benefit from the use of pictures for support
- middle/high school

Why you need this bundle:

- If you teach multiple grade levels, you have all you need in one place.

- Having the same layout for each unit reduces students' anxiety and allows them to focus on the content.

- Aligned with extended learning standards.

- Saves you money

- Picture/visual support for struggling learners

This bundle includes **10 different units** that are typically taught in this order. It includes **22 weeks** of instruction:

1. Fraction activities (to review basic fraction units)
2. Adding Fractions using Models (2 weeks)
3. Subtracting Fractions Using Models (2 weeks)
4. Equivalent Fractions (3 weeks)
5. Greatest Common Factor (2 weeks)
6. Least Common Denominator (2 weeks)
7. Adding Fractions (3 weeks)
8. Subtracting Fractions (3 weeks)
9. Multiplying Fractions (2 weeks)
10. Dividing Fractions (2 weeks)

All units have printable AND digital versions

J2T

Here are the skills covered in each unit:

Equivalent Fractions: used models, fraction bars, and number lines to identify and create equivalent fractions

Greatest Common Factor: factor trees, outside in charts, listing multiples, and finding prime numbers

Least Common Denominator: finding multiples and rewriting fractions using new denominators

Adding Fractions: The first unit uses pictures and models to add fractions with the same denominator. The next unit uses numbers to find the least common denominator, find the greatest common factor, add two fractions with and without common denominators, and simplify proper and improper fractions

Subtracting Fractions: The first unit uses pictures and models to subtract fractions with the same denominator. The next unit uses numbers to find the least common denominator, find the greatest common factor, subtract two fractions with and without common denominators, and simplify proper and improper fractions.

Multiplying Fractions: changing whole and mixed numbers into fractions, multiplying two fractions, simplifying proper and improper fractions

Dividing Fractions: changing whole and mixed numbers into fractions, dividing two fractions using the KEEP, CHANGE, FLIP method, multiplying fractions, simplifying proper and improper fractions

All the units are structured similarly so students become familiar with the type of activities and can concentrate more on the content. Each unit includes all or most of the following:

- Detailed lesson plans
- A book PLUS a pre-recorded PowerPoint show and movie version
- Vocabulary board
- Power cards
- Group activities
- Matching and sorting activities
- Various practice worksheets
- Quiz
- Digital activities

All units have printable AND digital versions

Day 4-5

Activity	Notes	Materials
Read or listen to the movie version of the book	• Read through the story, asking lots of questions • Continue to make connections between book and vocabulary board	• Book • Vocabulary board
Power card (5 minutes)	• Review the power cards. • I find doing this as part of the daily lesson really helps reinforce the steps students will be completing in this unit	• Power cards
Group activity (10 minutes)	• As a group do 2-3 problems coloring in the large grids provided.	• Fraction cards • Fraction grides • Dry erase markers
Worksheet review (5 minutes)	• Review the worksheets completed yesterday	• Multiplying fractions worksheet
Multiplying proper fractions (10 minutes)	• Students will complete 1-2 of the worksheets where they are multiplying proper fractions that need to be simplified. • You may need to go back and review finding the greatest common factor covered in the Adding Fractions Unit • I would do one problem day 4 and the remaining 2 problems day 5.	Multiplying fractions worksheets (pgs. 74-76)
Sharing (10 minutes)	• Each student shares one of their finished worksheets with the group using the communication method of their choice	• Completed worksheets • Communication devices

Lesson plan

Every unit has a detailed lesson plan with suggestions, a quick look, and a daily step-by-step guide.

J2T

One method is to do a factor tree. Start with any set of factors for the number. Continue finding factors until you only have prime numbers left.

20

5   4

2   2
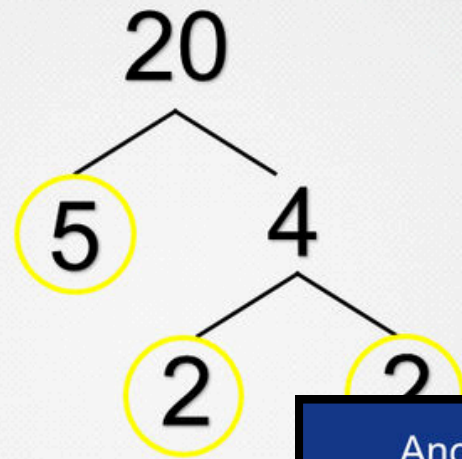
Another way to find the factors in a number is to fill out a chart working from the outside in using whole number that divide evenly into the starting number.
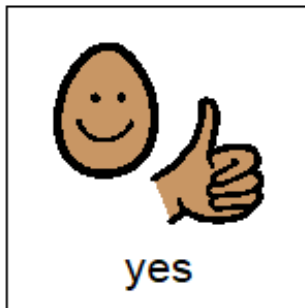
20

1						20
1	2				10	20
1	2	4		5	10	20

Every unit has a book with simple text and engaging photos or illustrations. It comes in a pdf, recorded PowerPoint show, and an mp4 file.

Christa Joy, Special Needs for Special Kids
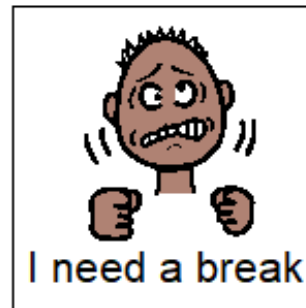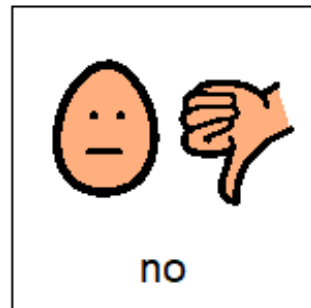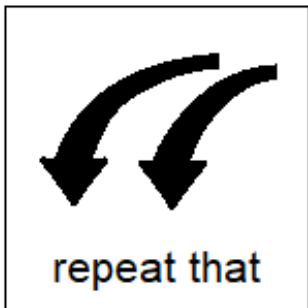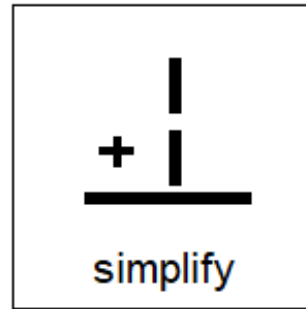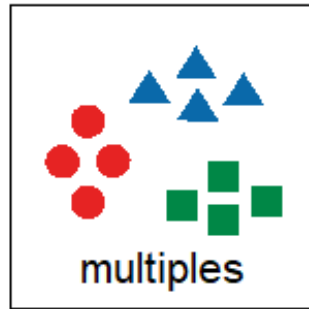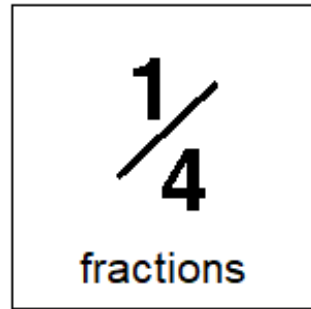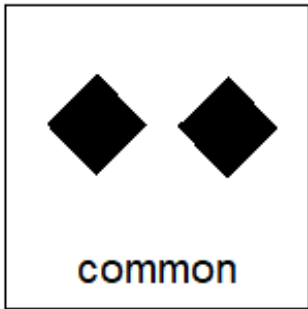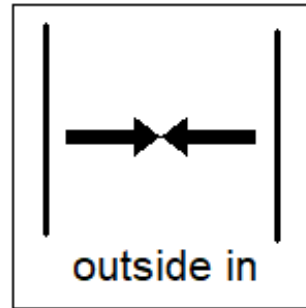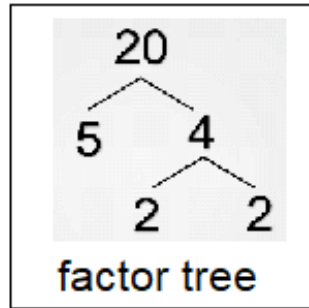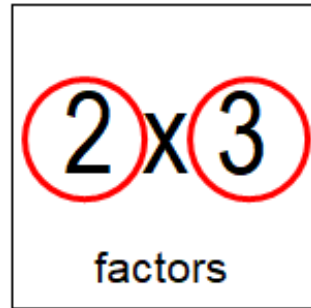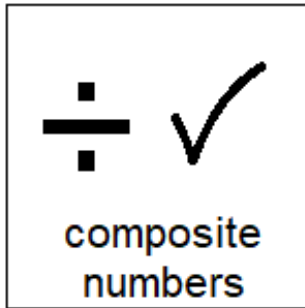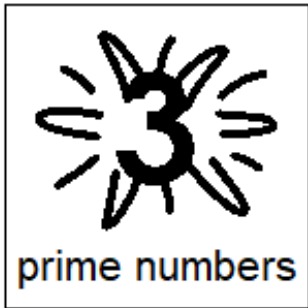
Every unit has a vocabulary board to use while working through the unit. Suggestions for use are included.

Power Cards

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

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

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

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 $5\overline{)9}$ with 1 above $\longrightarrow$ ② 1

③ $5\overline{)9}$ with 1 above, $\frac{5}{4}$ below $\longrightarrow$ ④ $1\frac{4}{5}$

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 $\frac{17}{5}$

Each unit comes with power cards to review the steps from that unit. Students can use these cards as a quick reference when solving problems throughout all the units.
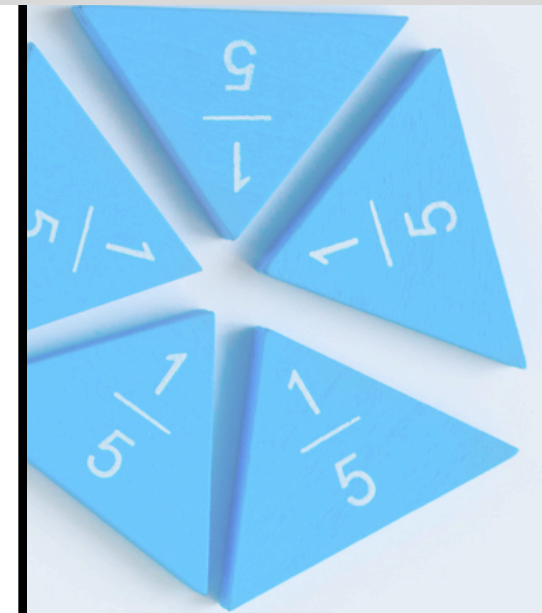
All units have group activities to help with generalization and real-world examples of the skills covered in that unit.
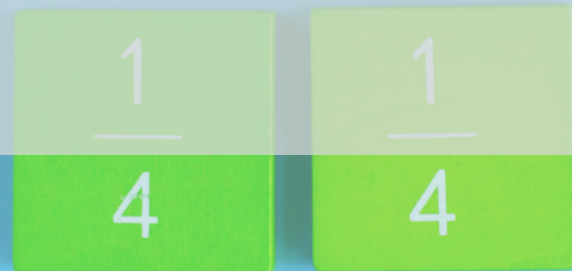
Greatest Common Factor: Find 10 group activities

Least Common Denominator: 5 different activities plus prime number bingo game

Adding & Subtracting Fractions: work through problems using fraction cards and templates

Multiplying Fractions: Drawing out equations

Dividing Fractions: Bean Party

There are lots of worksheets in each unit for students to practice the individual steps needed for that skill as well as working through the entire problem.

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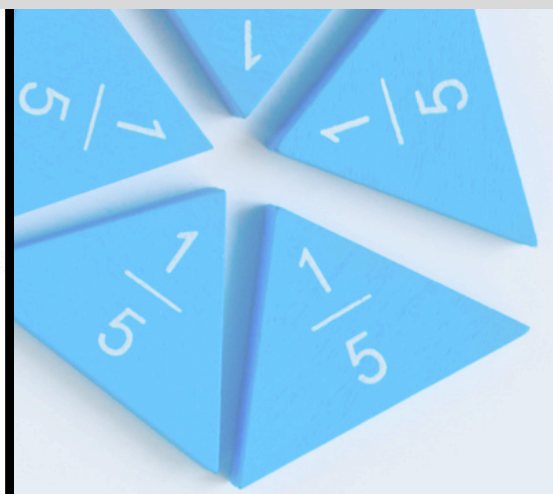
1. Rewrite the equation using the keep, switch flip method.
2. Solve equation.
3. Simplify if needed.

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

1 & 2

3 Simplify if needed.

Christa Joy, Special Needs for Special Kids
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Right worksheet:
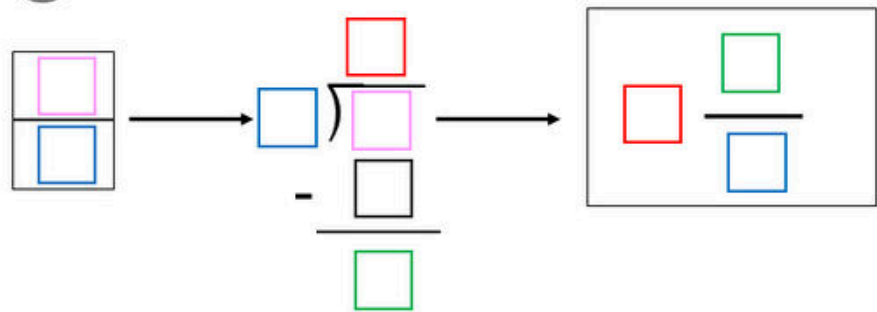
1. Find the common denominator.
2. Add the numerators (keep denominator the same).
3. Simplify if needed

$$\frac{2}{3} + \frac{1}{6} = ?$$

1
3 x 1 = ____   6 x 1 = ____
3 x 2 = ____   6 x 2 = ____
3 x 3 = ____   6 x 3 = ____
3 x 4 = ____   6 x 4 = ____
3 x 5 = ____   6 x 5 = ____

Least common denominator =

2   Write new equation and add fractions.

+   = ?   +   =

3   Simplify if needed.

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Text box:

Problems are spaced out and there is color-coding and other visual structure present to support students as they work through each step.
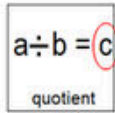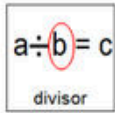
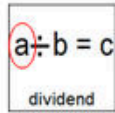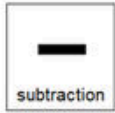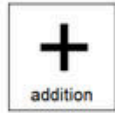Finally, each unit has a quiz that covers the concepts in the book and sample problems.
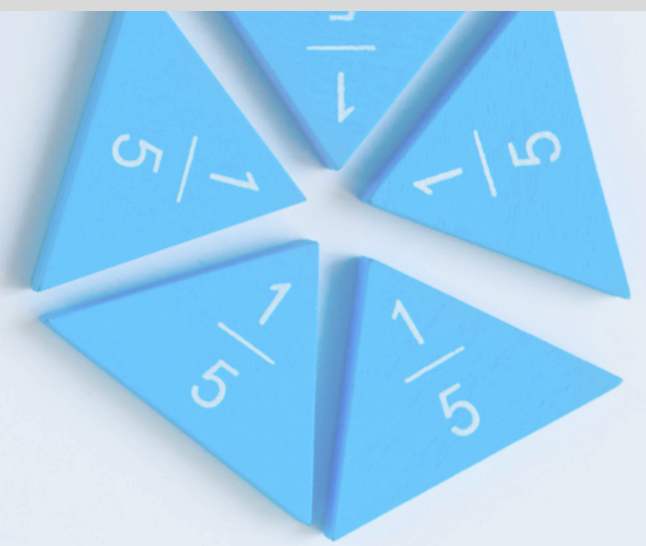
Name: _____ Quiz

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

| ①/4 numerator | 1/④ denominator | ✗ neither |
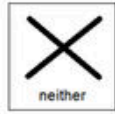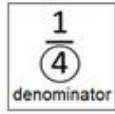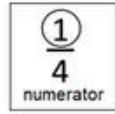
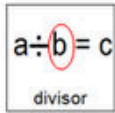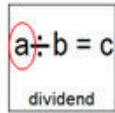2. What do you keep the same when dividing fractions?

| a÷b = c dividend | a÷b = c divisor | a÷b = c quotient |

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

| + addition | − subtraction | ✗ multiplication |

4. What do you flip when dividing fractions?

| a÷b = c dividend | a÷b = c divisor | a÷b = c quotient |
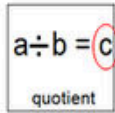
5. True or False. You do not need to check and simplify your answer if needed when dividing fractions.

| ☺ true | ☹ false | 🤷 I don't know |

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 to the party?

| total quantity | portion size | time |
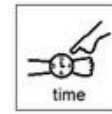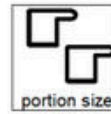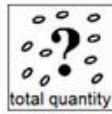
8. With you 6 cups of jellybeans, how many kids could you invite if you gave each kid 1/2 cup of jellybeans?

| 12 | 3 | 6 |

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

All of these units include digital versions of the activities. Two sets of slides are included. One requires students to type in their answers. The other set has color coding for more support, and students click and drag the answers to fill in boxes without having to type anything.

There is a movie version of the book.

These make great independent learning centers.

Make great independent learning centers.

J2T

Watch the movie on finding the common denominator

Finding a Common Denominator

by Christa Joy

The movie version of the book from the unit is narrated and animated. It walks through solving the equations step by step.
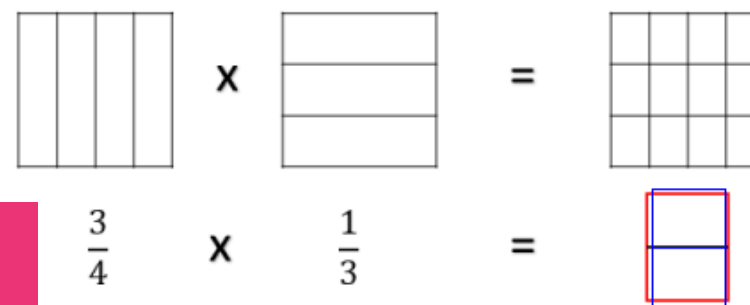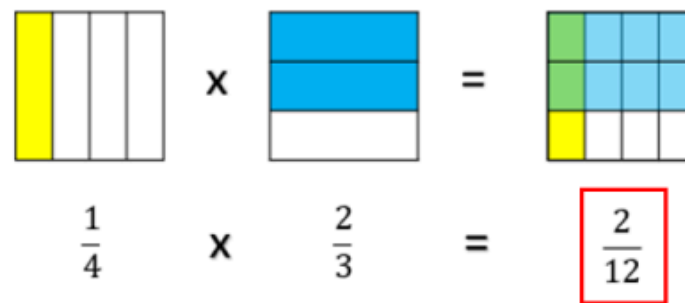
$\frac{1}{3} - \frac{1}{6} = ?$

1. Find the common denominator.
2. Subtract the numerators (keep denominator the same).
3. Simplify if needed

① 3 x 1 = ☐   6 x 1 = ☐
3 x 2 = ☐   6 x 2 = ☐
3 x 3 = ☐   6 x 3 = ☐
3 x 4 = ☐   6 x 4 = ☐
3 x 5 = ☐   6 x 5 = ☐

Least common denominator = ☐

② Write new equation and add fractions.

③ Simplify if needed.

final answer

One set of slides requires students to type in their answers.
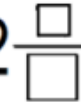
Example:

Color in the designated area in each picture. Use a different color for each fraction. For the final answer, use those same colors and circle the area that overlaps and type your answer. Do NOT simplify your answer.

$\frac{1}{4}$ x $\frac{2}{3}$ = $\frac{2}{12}$

$\frac{3}{4}$ x $\frac{1}{3}$ =

Great for review

Perfect for any learning level

One set of slides is color coded and students click and drag their answers.

Still have questions?

Reach out at specialneedsforspecialkids@gmail.com

I will answer your question personally and promptly.