ALSO INCLUDES GOOGLE SLIDES

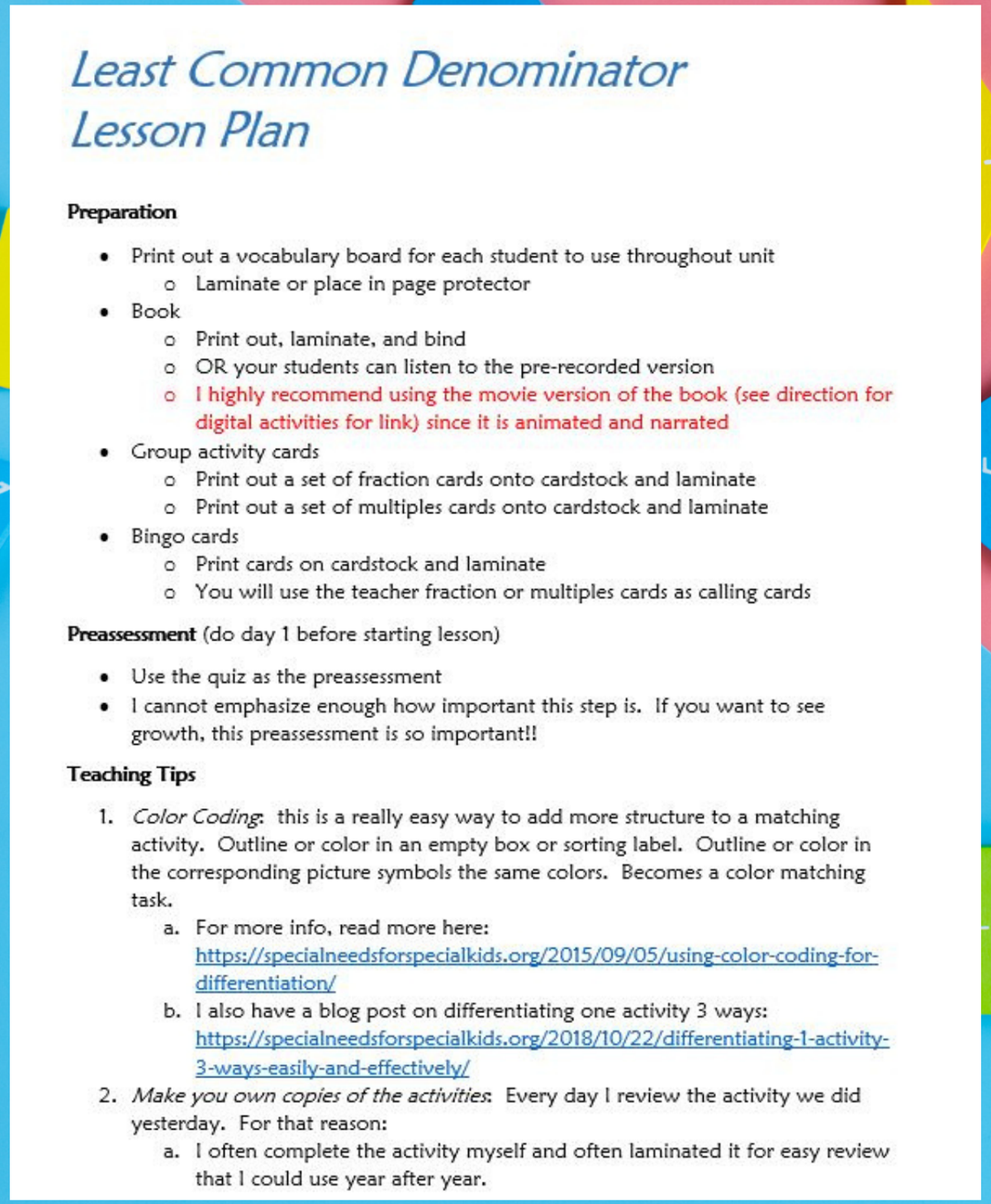
This unit was created with this guy in mind. He has autism and an intellectual disability. He is a non-reader and lacks many pre-requisite math skills needed for math. With some support, he is able to do this unit and enjoys the challenge. He is my tester!!

Table of Contents

In a separate files:

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

This unit contains over 100 pages of material. But, don't worry!! I have included a 10 day lesson plan to help you make the most of everything packed in this unit.



Least Common Denominator 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
- Group activity cards
  - Print out a set of fraction cards onto cardstock and laminate
  - Print out a set of multiples cards onto cardstock and laminate
- Bingo cards
  - Print cards on cardstock and laminate
  - You will use the teacher fraction or multiples cards as calling cards

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/
2. *Make you own copies of the activities*: Every day I review the activity we did yesterday. For that reason:
   a. I often complete the activity myself and often laminated it for easy review that I could use year after year.

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	• Book • Vocabulary board intro • Power card introduction • Identifying least common denominators	6	• Book • Group activity • Going through all steps to find and convert to LCD
2	• Book • Review power card • Finding multiples and LCD	7	• Book • Group activity • Going through all steps to find and convert to LCD
3	• Book • Group activity • Finding multiples and LCD	8	• Book • Group activity • Going through all steps to find and convert to LCD
4	• Book • Group activity • Finding multiples and LCD	9	• Book • Practice problem group activity • Going through all steps to find and convert to LCD
5	• Book • Group activity • Finding multiples and LCD	10	• Quiz

The lesson plans contain:

A quick look at what you will do each day.

Day 6-9

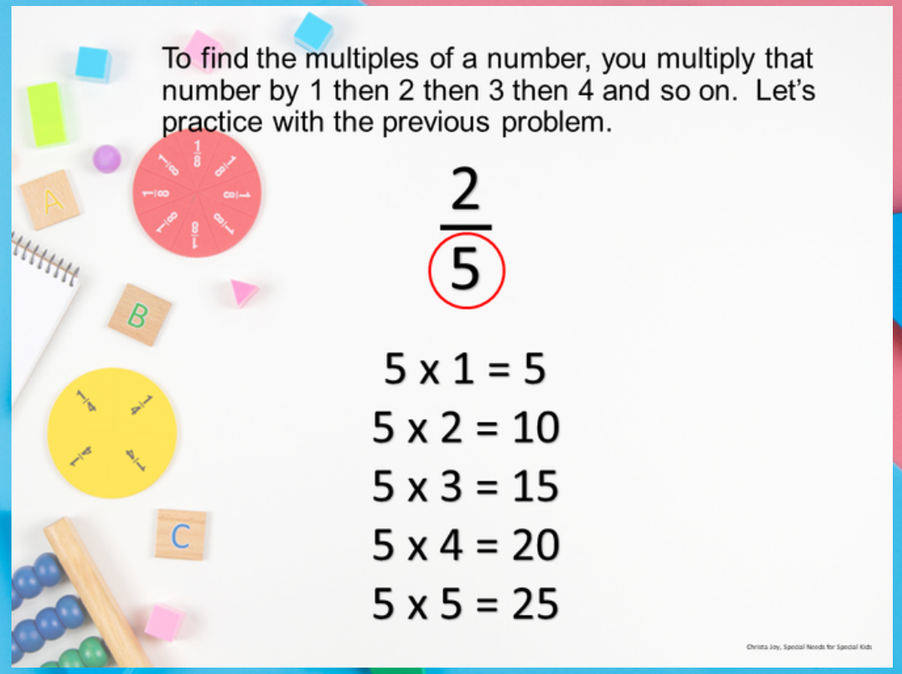
Activity	Notes	Materials
Read or listen to the movie version of the book	• Read through the story, asking lots of questions • Continue to make connections between book and vocabulary board	• Book • Vocabulary board

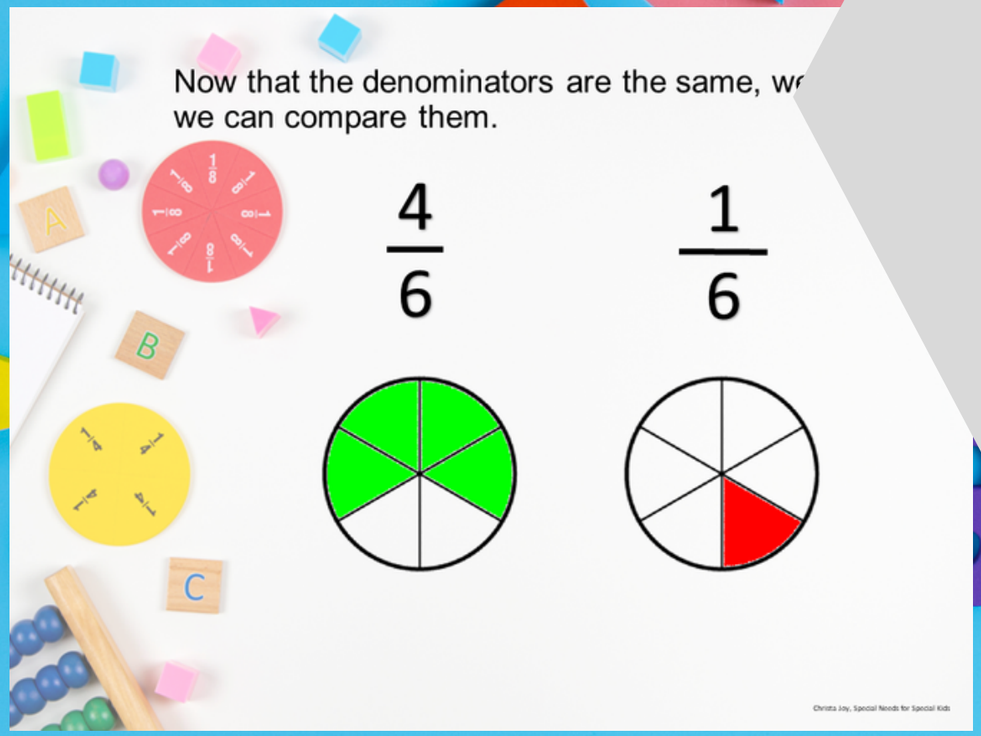
LCD group activities	• Choose an activity to do as a group. See the handout for the explanation of the following activities
	  ○ I Spy
	  ○ Bingo
	  ○ Scavenger Hunt
	  ○ Speed matching
	  ○ Bean bag toss
		• Fraction and multiples cards Other materials depend on activity chosen

Writing out multiples review (5 minutes)	• Review the worksheet completed last week	• Writing out multiples worksheet
Practice problems (10 minutes)	• Do one of the worksheets with student practice problems going all the way through the process of writing out multiples, finding LCD and converting the fractions • There is a lot of color-coding added to help support students in this process. *If you are printing in black and white, you may want to add this color by hand.* • Help students refer to power card as they work through the problems	• Worksheet • Calculator • Power cards
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

The lesson plans contain:

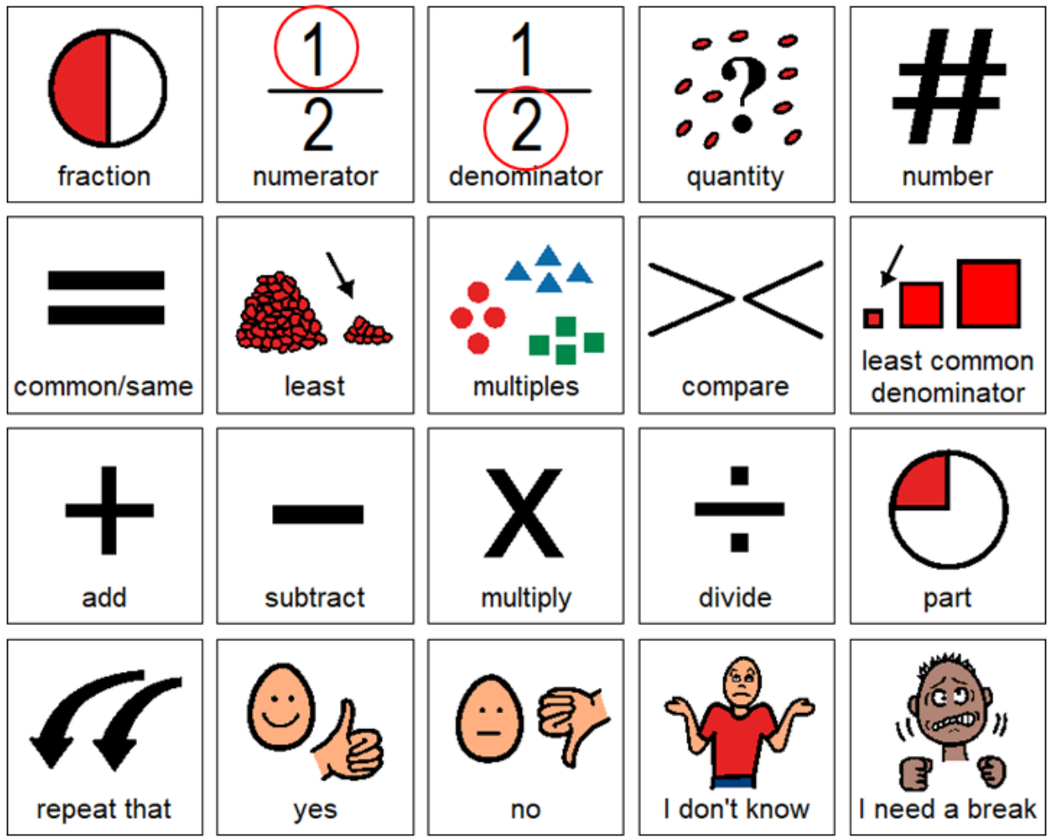
Detailed instructions on how that day's lesson should run including group and individual activities.





This unit contains a book that is 27 pages and covers how to find the least common denominator in a set of fractions.

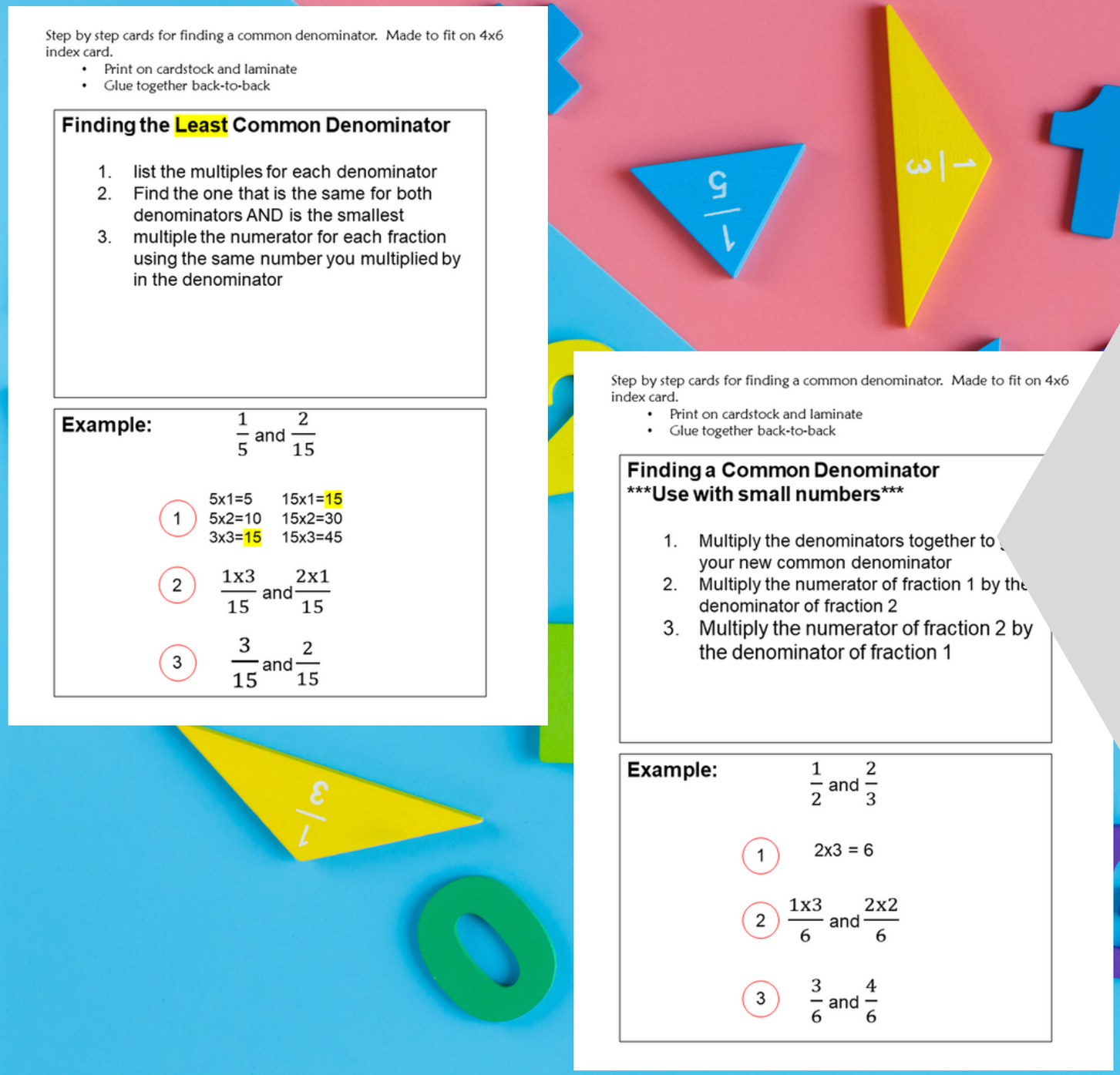
It comes in a pdf version as well as an mp4 version that is animated and narrated.



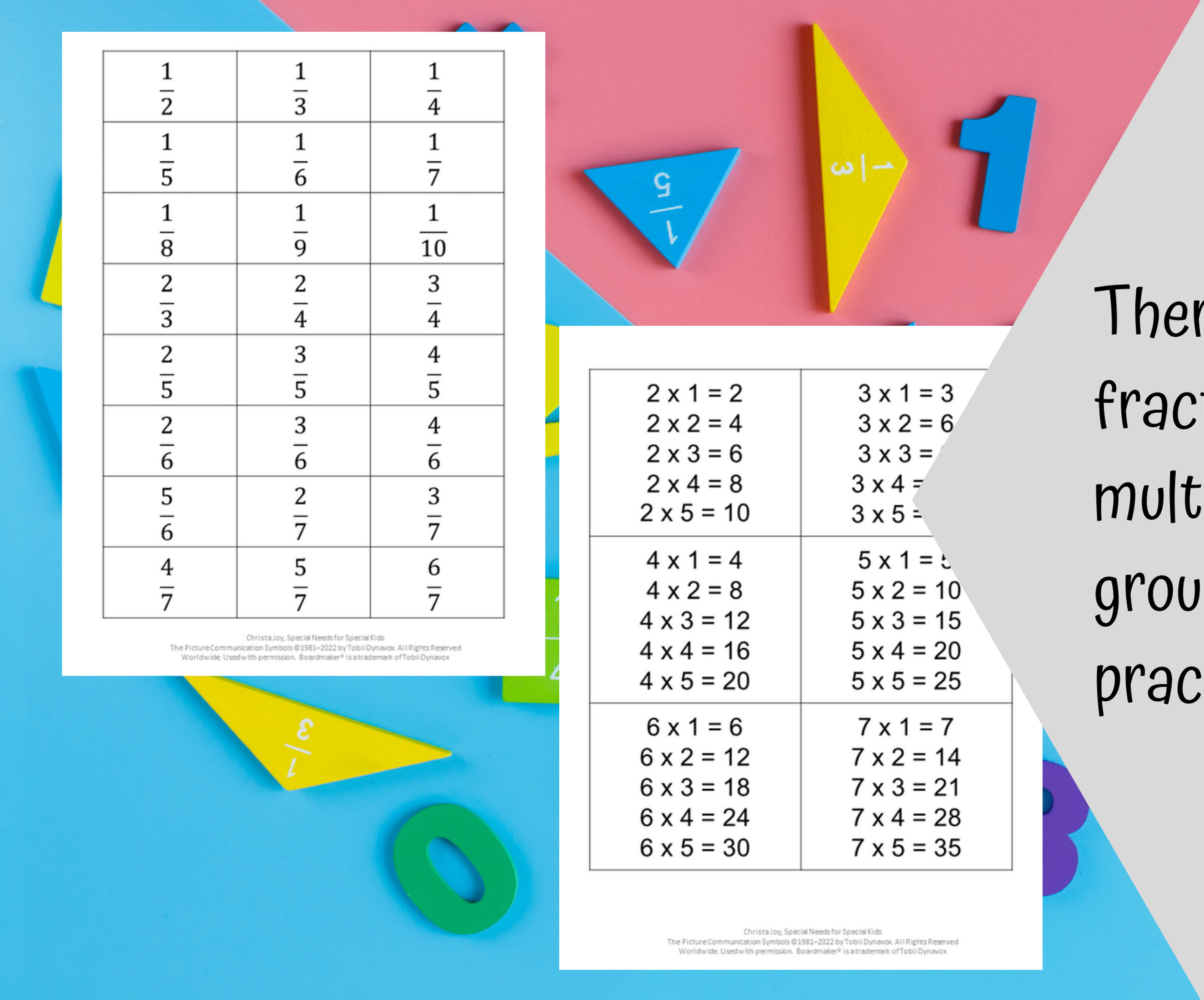
This unit comes with a vocabulary board.

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

Tips on how to use in the unit!!



There are 2 power cards that outline the two main ways students can find a common denominator. They can use when working through problems.



$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$
$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$
$\frac{1}{8}$	$\frac{1}{9}$	$\frac{1}{10}$
$\frac{2}{3}$	$\frac{2}{4}$	$\frac{3}{4}$
$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$
$\frac{2}{6}$	$\frac{3}{6}$	$\frac{4}{6}$
$\frac{5}{6}$	$\frac{2}{7}$	$\frac{3}{7}$
$\frac{4}{7}$	$\frac{5}{7}$	$\frac{6}{7}$

2 x 1 = 2 2 x 2 = 4 2 x 3 = 6 2 x 4 = 8 2 x 5 = 10	3 x 1 = 3 3 x 2 = 6 3 x 3 = 3 x 4 = 3 x 5 =
4 x 1 = 4 4 x 2 = 8 4 x 3 = 12 4 x 4 = 16 4 x 5 = 20	5 x 1 = 5 x 2 = 10 5 x 3 = 15 5 x 4 = 20 5 x 5 = 25
6 x 1 = 6 6 x 2 = 12 6 x 3 = 18 6 x 4 = 24 6 x 5 = 30	7 x 1 = 7 7 x 2 = 14 7 x 3 = 21 7 x 4 = 28 7 x 5 = 35

There are a set of fraction cards and multiples cards used for group activities and extra practice.

GROUP ACTIVITIES FOR COMMON DENOMINATOR UNIT

Scavenger hunt

Here is what you will need:

- one copy of the fraction cards
- one copy of multiple cards

How to play:

- Place the fraction cards around the room
- Pass out the set of multiple cards amongst the students
- Students walk around with their multiple cards looking for a matching fraction
- Bring the matches back to the table and share which they found
- Can also play by switching the fraction and multiple cards locations

I Spy Game

Here is what you will need:

- one copy of the fraction cards
- one copy of multiple cards

How to play:

- Place the fraction cards face up on the table
- Hold up one of the multiple cards so only you can see it.
- Describe it with as much detail as you can
- Ask students to hold up the fraction card they think matches
- Turn it around and ask students to raise their hand if they got it correct
- Can also play by switching the fraction and multiple cards locations

Speed Matching

Here is what you will need:

- two copies of the fraction cards

How to play:

- Place one set of fraction cards face up on the table
- Hold up a fraction card for students to see
- Students race to find a fraction with the same denominator

Paper plate toss

Here is what you will need:

- one copy of the fraction cards
- one copy of multiple cards
- paper plates
- bean bags

How to play:

- write one fraction on each plate
- place plates around the sitting area where students normally work
- put fraction cards and multiple cards face down on the table
- Students pull a card and will toss a bean bag and have it land on either a fraction with a common denominator (if a fraction card) or a fraction with that set of multiples (if a multiples card)

Bingo

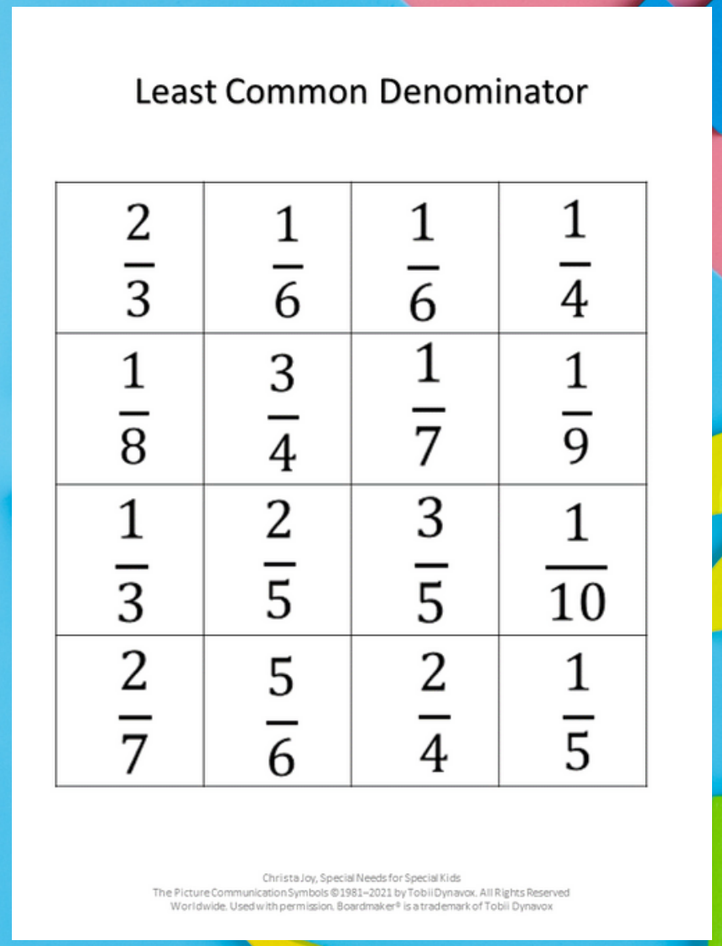
Here is what you will need:

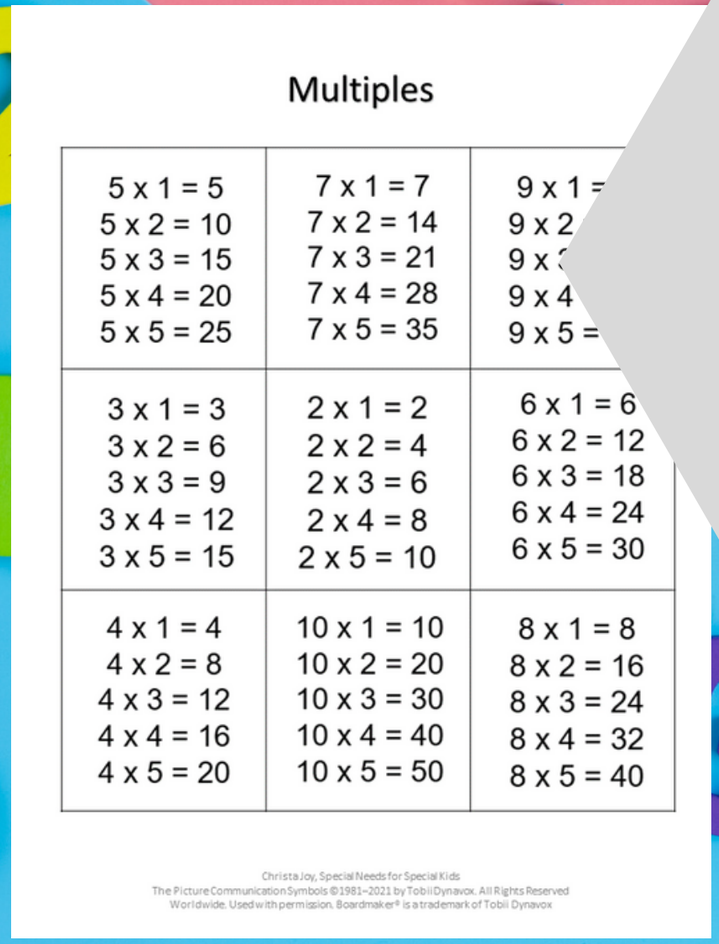
- one copy of the fraction cards
- one copy of multiple cards
- Bingo card for each student
- Bingo markers

How to play:

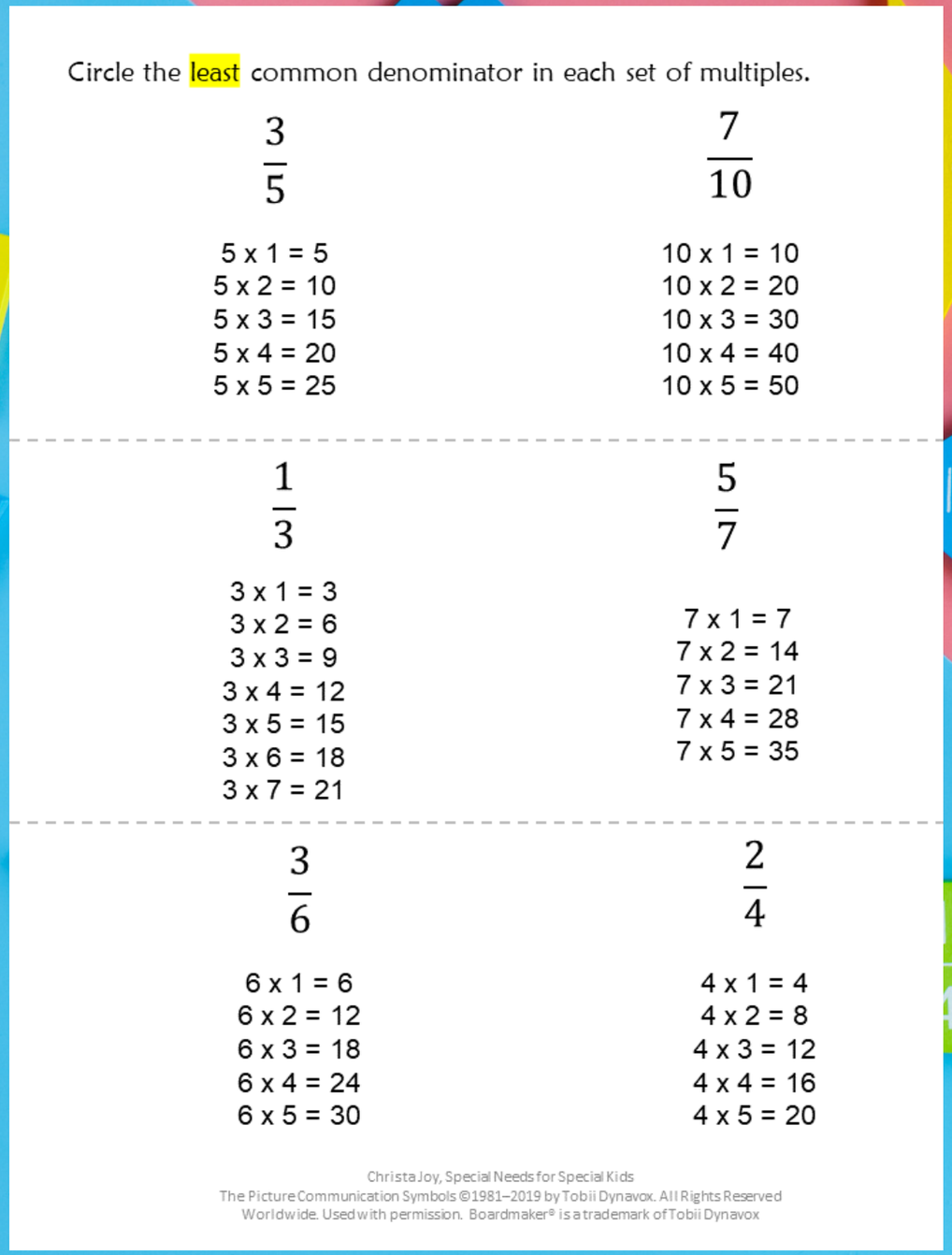
- There are several ways you can play Bingo with these cards
  - Have students find the exact fraction
  - Have students find any fraction with a common denominator
  - Have students find any fraction with that set of multiples

There are 5 different group activities you can do with the cards included.





There are 20 Bingo cards and suggestions for how to use them included.


Circle the least common denominator in each set of multiples.

$\frac{3}{5}$

5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25

$\frac{7}{10}$

10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50

$\frac{1}{3}$

3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21

$\frac{5}{7}$

7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35

$\frac{3}{6}$

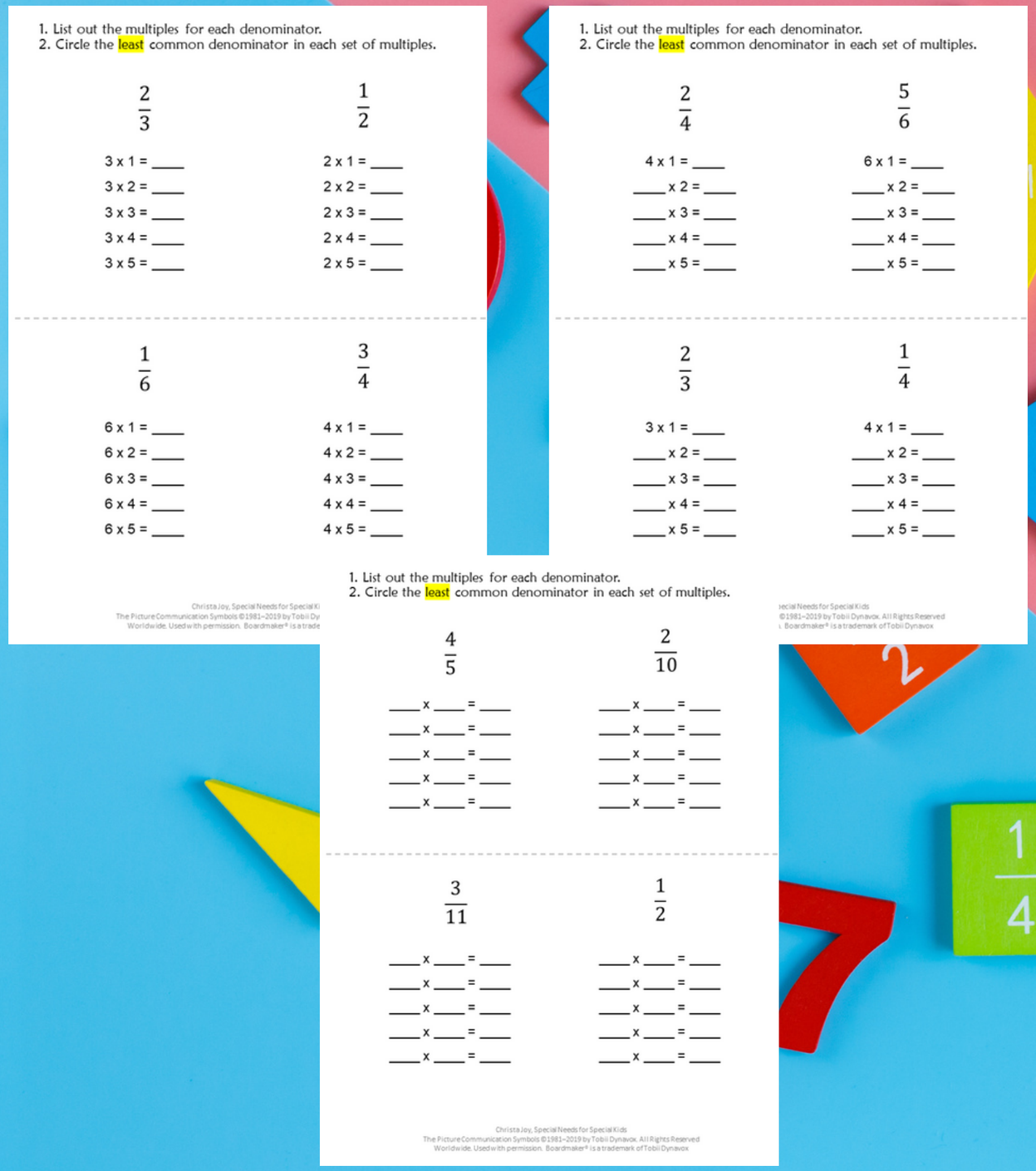
6 x 1 = 6
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30

$\frac{2}{4}$

4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20

There are 3 worksheet sets that practice a specific step in the process of finding a common denominator.

This is set 1 and has 2 worksheets where students simply circle the LCD when then multiples are already done for them.


1. List out the multiples for each denominator.
2. Circle the least common denominator in each set of multiples.

$\frac{2}{3}$

3 x 1 = ___
3 x 2 = ___
3 x 3 = ___
3 x 4 = ___
3 x 5 = ___

$\frac{1}{2}$

2 x 1 = ___
2 x 2 = ___
2 x 3 = ___
2 x 4 = ___
2 x 5 = ___

$\frac{1}{6}$

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

$\frac{3}{4}$

4 x 1 = ___
4 x 2 = ___
4 x 3 = ___
4 x 4 = ___
4 x 5 = ___

Christa Joy, Special Needs for Special Kids
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1. List out the multiples for each denominator.
2. Circle the least common denominator in each set of multiples.

$\frac{2}{4}$

4 x 1 = ___
___ x 2 = ___
___ x 3 = ___
___ x 4 = ___
___ x 5 = ___

$\frac{5}{6}$

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

$\frac{2}{3}$

3 x 1 = ___
___ x 2 = ___
___ x 3 = ___
___ x 4 = ___
___ x 5 = ___

$\frac{1}{4}$

4 x 1 = ___
___ x 2 = ___
___ x 3 = ___
___ x 4 = ___
___ x 5 = ___

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1. List out the multiples for each denominator.
2. Circle the least common denominator in each set of multiples.

$\frac{4}{5}$

___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___

$\frac{2}{10}$

___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___

$\frac{3}{11}$

___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___

$\frac{1}{2}$

___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___
___ x ___ = ___

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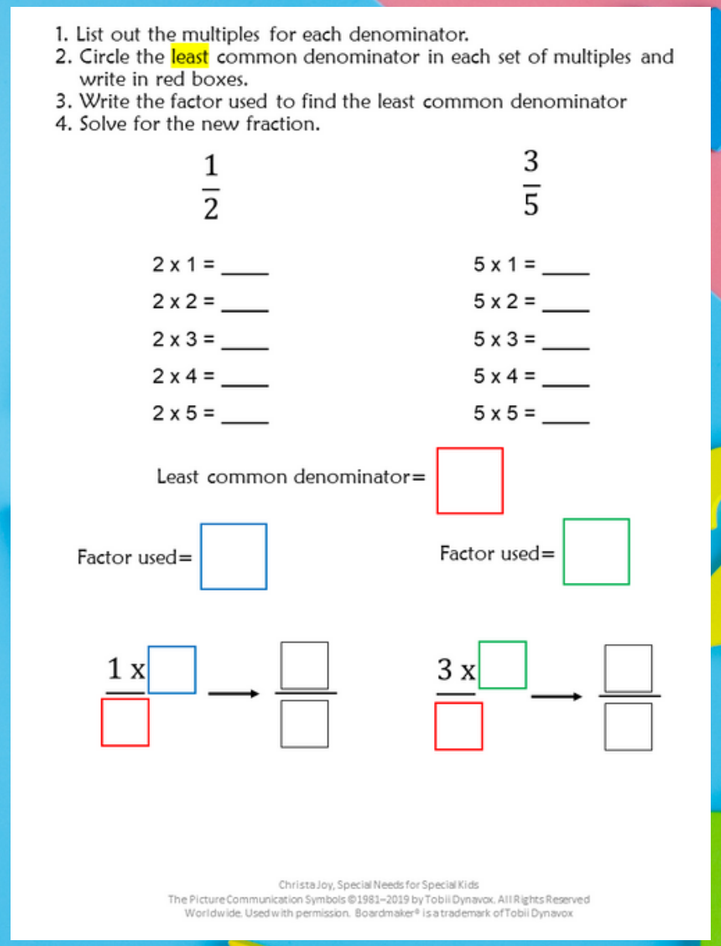
The second set has 7 worksheets, and students work to find the multiples and then LCD. The level of support decreases as you work through the set (less answers are pre-filled in for them.)


1. List out the multiples for each denominator.
2. Circle the least common denominator in each set of multiples and write in red boxes.
3. Write the factor used to find the least common denominator
4. Solve for the new fraction.

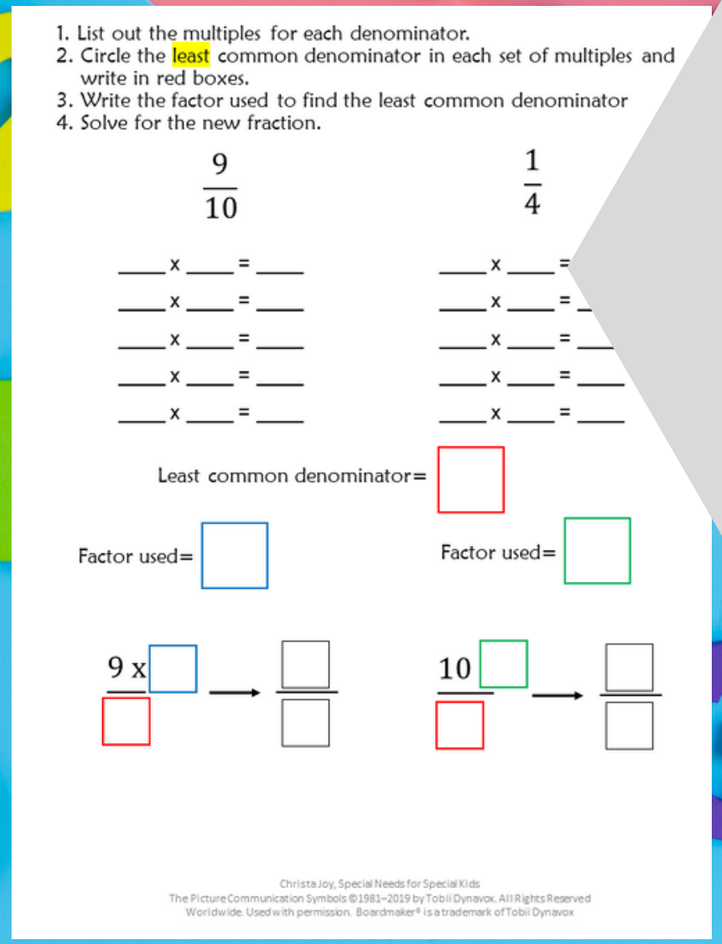
$\frac{1}{2}$ $\frac{3}{5}$

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

Least common denominator=

Factor used= Factor used=

1 x → 3 x →


1. List out the multiples for each denominator.
2. Circle the least common denominator in each set of multiples and write in red boxes.
3. Write the factor used to find the least common denominator
4. Solve for the new fraction.

$\frac{9}{10}$ $\frac{1}{4}$

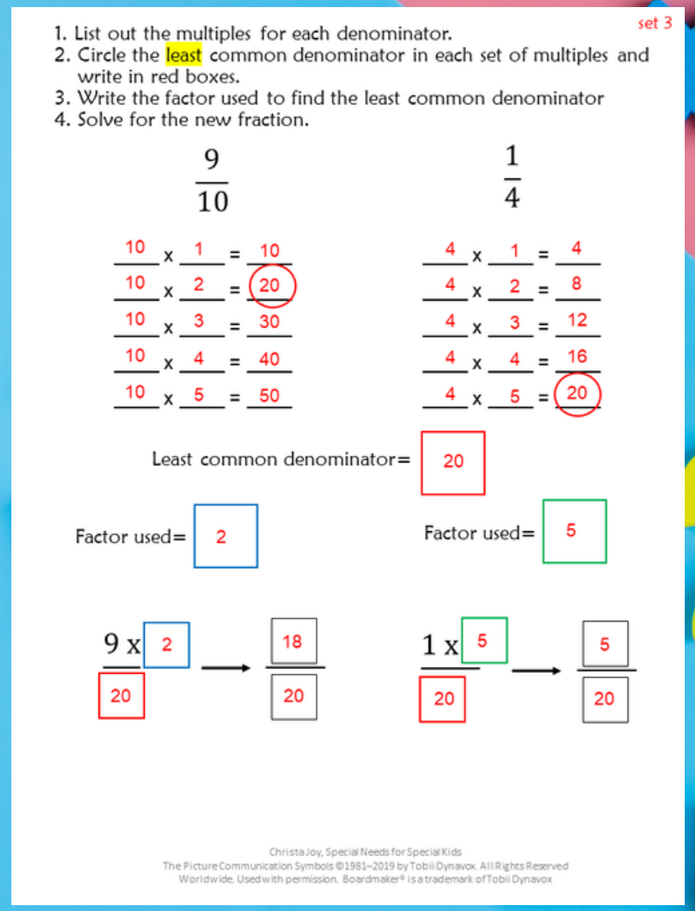
____ x ____ = ____ ____ x ____ =
____ x ____ = ____ ____ x ____ =
____ x ____ = ____ ____ x ____ =
____ x ____ = ____ ____ x ____ =
____ x ____ = ____ ____ x ____ =

Least common denominator=

Factor used= Factor used=

9 x → 10 →

The third set has 10 worksheets, and students work to find the multiples, the LCD, and then use that to find change the two fractions. The level of support decreases as you work through the set (less answers are pre-filled in for them.) There is also color-coding to help students follow along as well.



set 3

1. List out the multiples for each denominator.
2. Circle the least common denominator in each set of multiples and write in red boxes.
3. Write the factor used to find the least common denominator
4. Solve for the new fraction.

$\frac{9}{10}$

10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50

$\frac{1}{4}$

4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20

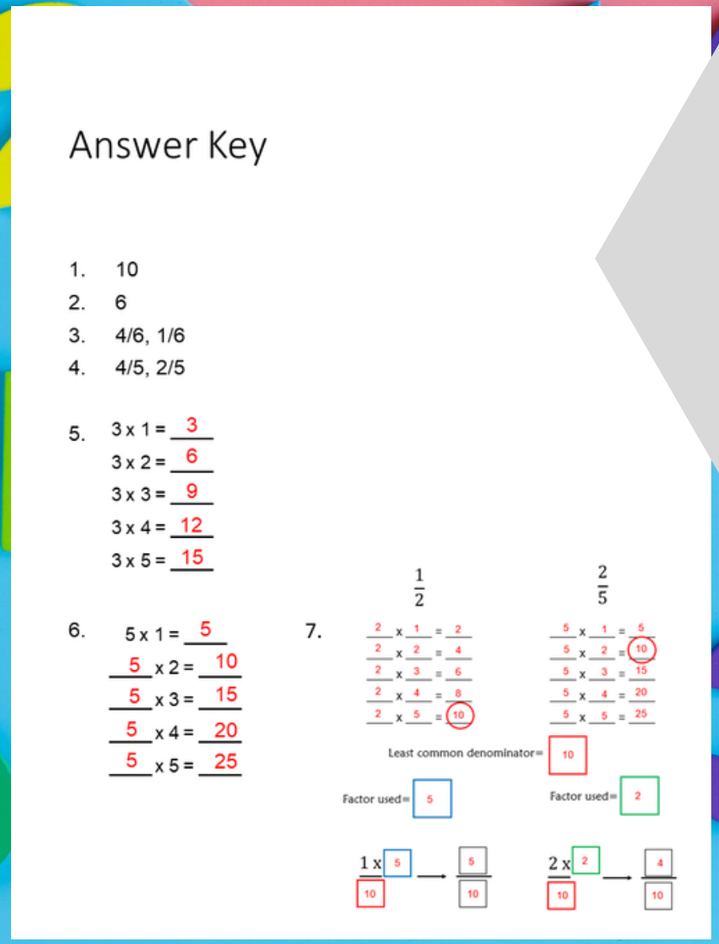
Least common denominator= 20

Factor used= 2

Factor used= 5

$9 \times \frac{2}{20} \rightarrow \frac{18}{20}$

$1 \times \frac{5}{20} \rightarrow \frac{5}{20}$



Answer Key

1. 10
2. 6
3. 4/6, 1/6
4. 4/5, 2/5

5.
3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15

6.
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25

7. $\frac{1}{2}$

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10

$\frac{2}{5}$

5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25

Least common denominator= 10

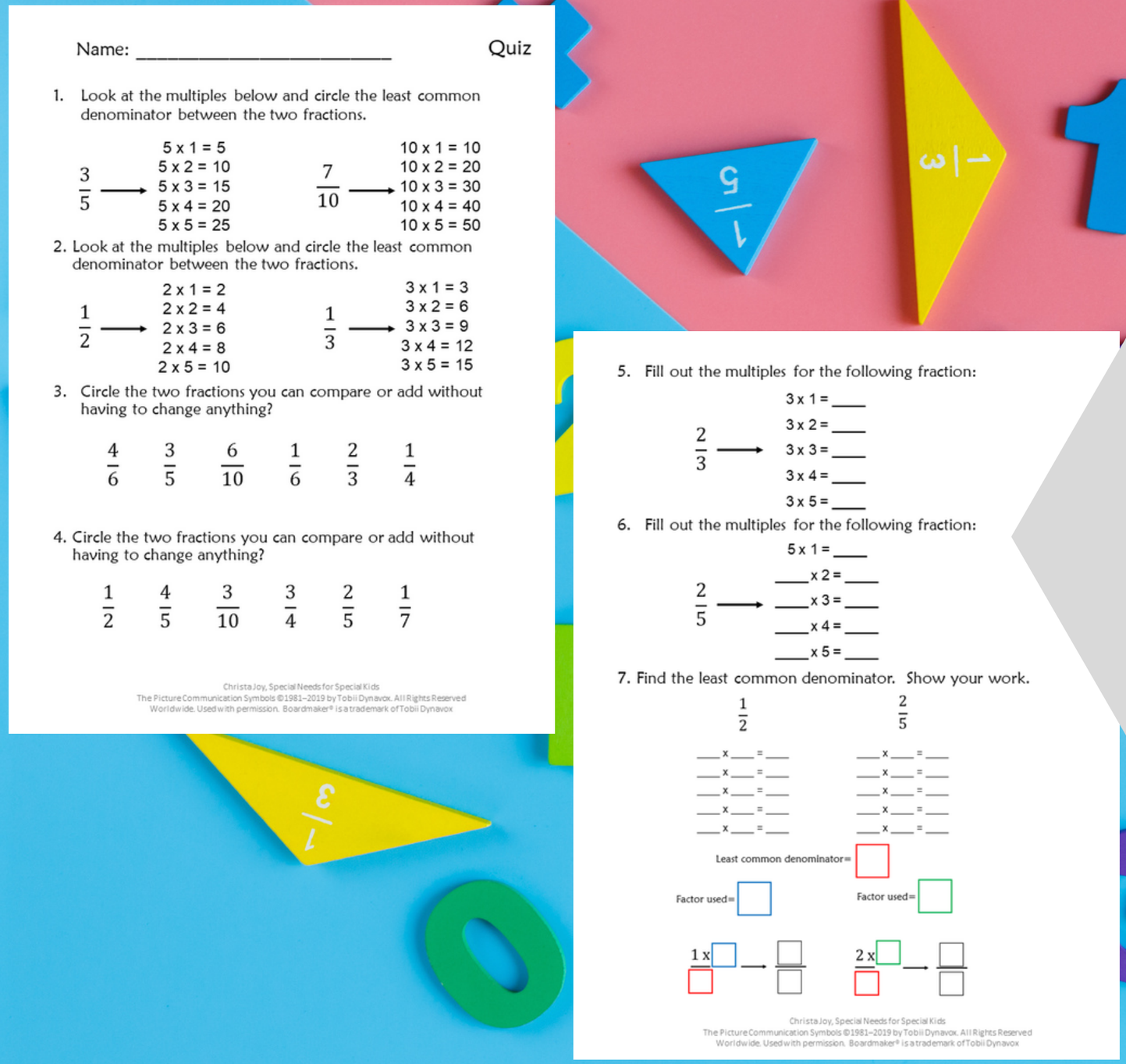
Factor used= 5

Factor used= 2

$1 \times \frac{5}{10} \rightarrow \frac{5}{10}$

$2 \times \frac{2}{10} \rightarrow \frac{4}{10}$

There are detailed answer keys.



Name: _____ Quiz

1. Look at the multiples below and circle the least common denominator between the two fractions.

$\frac{3}{5}$ → 5 x 1 = 5, 5 x 2 = 10, 5 x 3 = 15, 5 x 4 = 20, 5 x 5 = 25

$\frac{7}{10}$ → 10 x 1 = 10, 10 x 2 = 20, 10 x 3 = 30, 10 x 4 = 40, 10 x 5 = 50

2. Look at the multiples below and circle the least common denominator between the two fractions.

$\frac{1}{2}$ → 2 x 1 = 2, 2 x 2 = 4, 2 x 3 = 6, 2 x 4 = 8, 2 x 5 = 10

$\frac{1}{3}$ → 3 x 1 = 3, 3 x 2 = 6, 3 x 3 = 9, 3 x 4 = 12, 3 x 5 = 15

3. Circle the two fractions you can compare or add without having to change anything?

$\frac{4}{6}$ $\frac{3}{5}$ $\frac{6}{10}$ $\frac{1}{6}$ $\frac{2}{3}$ $\frac{1}{4}$

4. Circle the two fractions you can compare or add without having to change anything?

$\frac{1}{2}$ $\frac{4}{5}$ $\frac{3}{10}$ $\frac{3}{4}$ $\frac{2}{5}$ $\frac{1}{7}$

5. Fill out the multiples for the following fraction:

$\frac{2}{3}$ → 3 x 1 = ___, 3 x 2 = ___, 3 x 3 = ___, 3 x 4 = ___, 3 x 5 = ___

6. Fill out the multiples for the following fraction:

$\frac{2}{5}$ → 5 x 1 = ___, ___ x 2 = ___, ___ x 3 = ___, ___ x 4 = ___, ___ x 5 = ___

7. Find the least common denominator. Show your work.

$\frac{1}{2}$ ___ x ___ = ___ (5 rows)

$\frac{2}{5}$ ___ x ___ = ___ (5 rows)

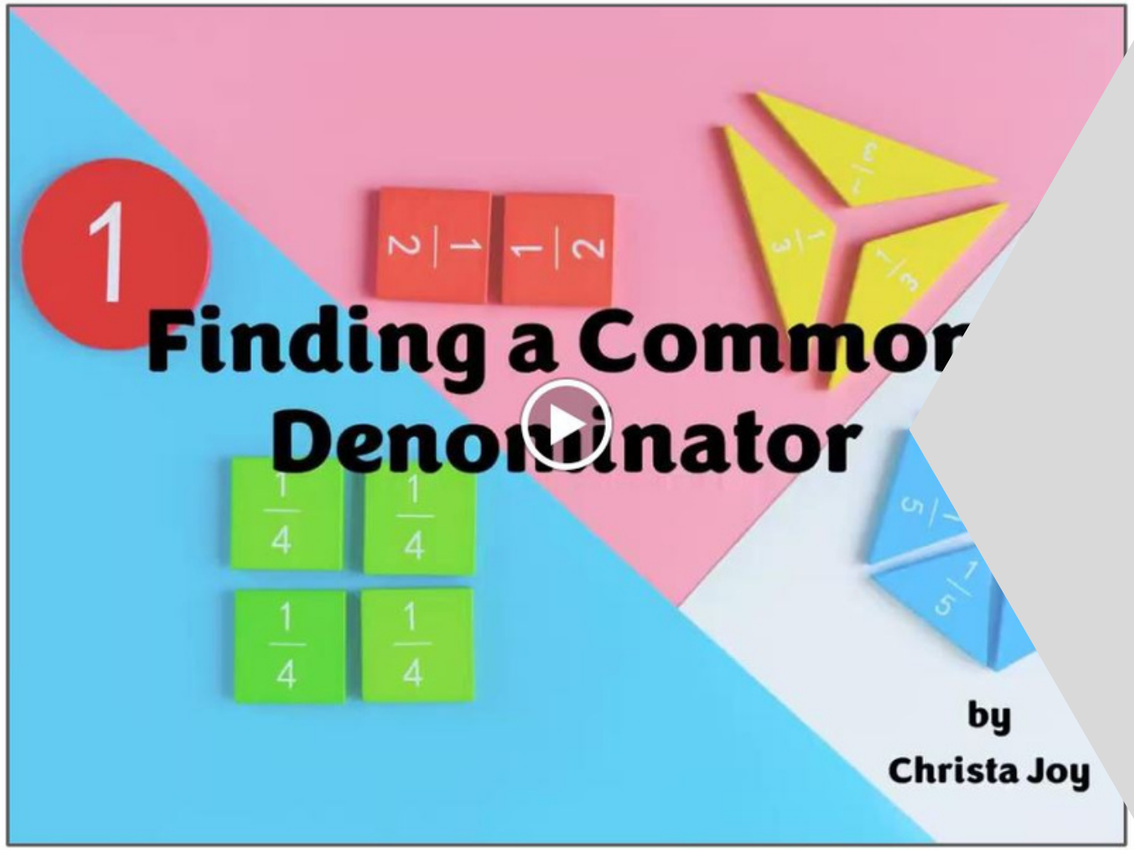
Least common denominator = ☐

Factor used = ☐ Factor used = ☐

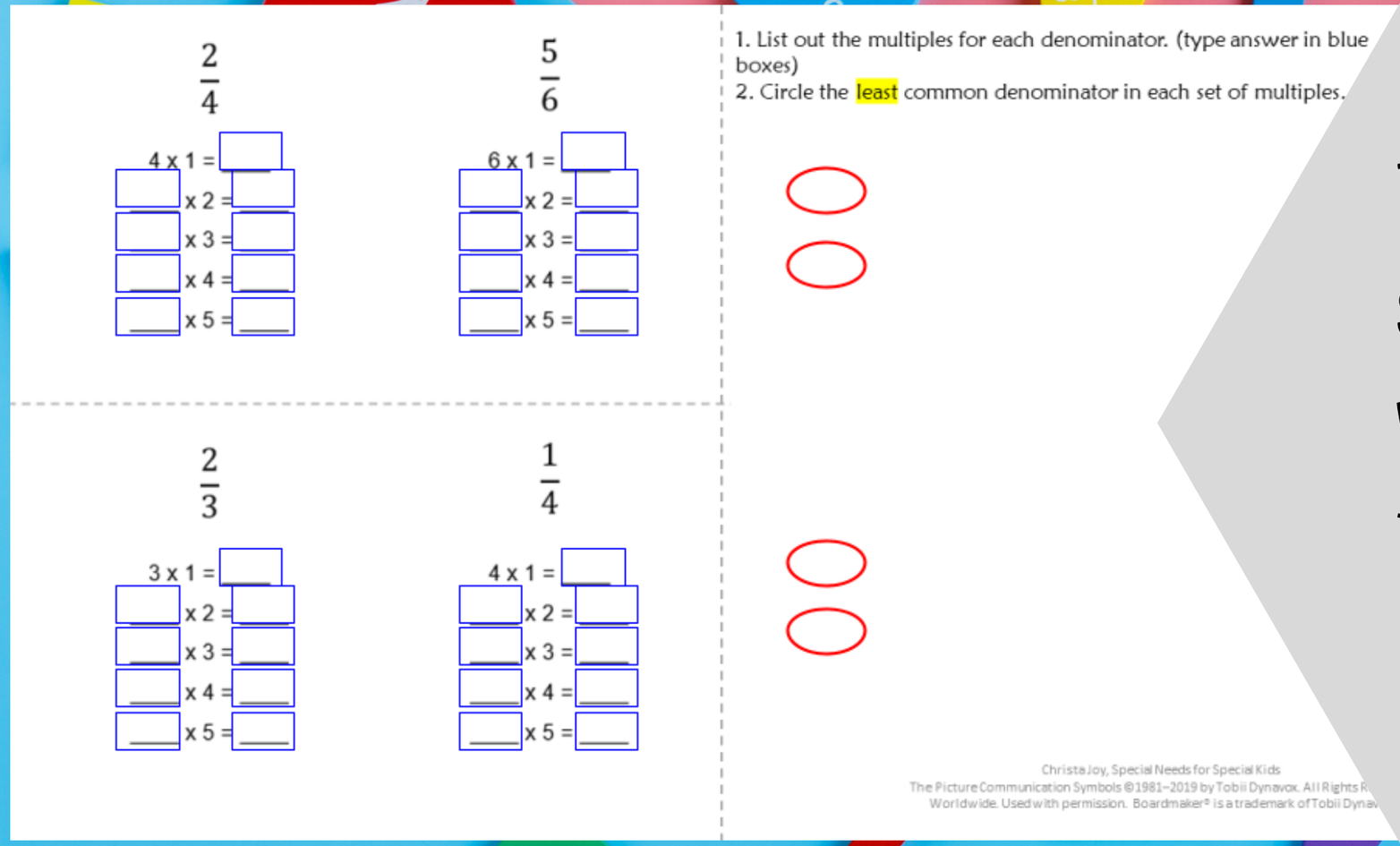
1 x ☐ → ☐/☐ 2 x ☐ → ☐/☐

There is a short quiz to use as the assessment.

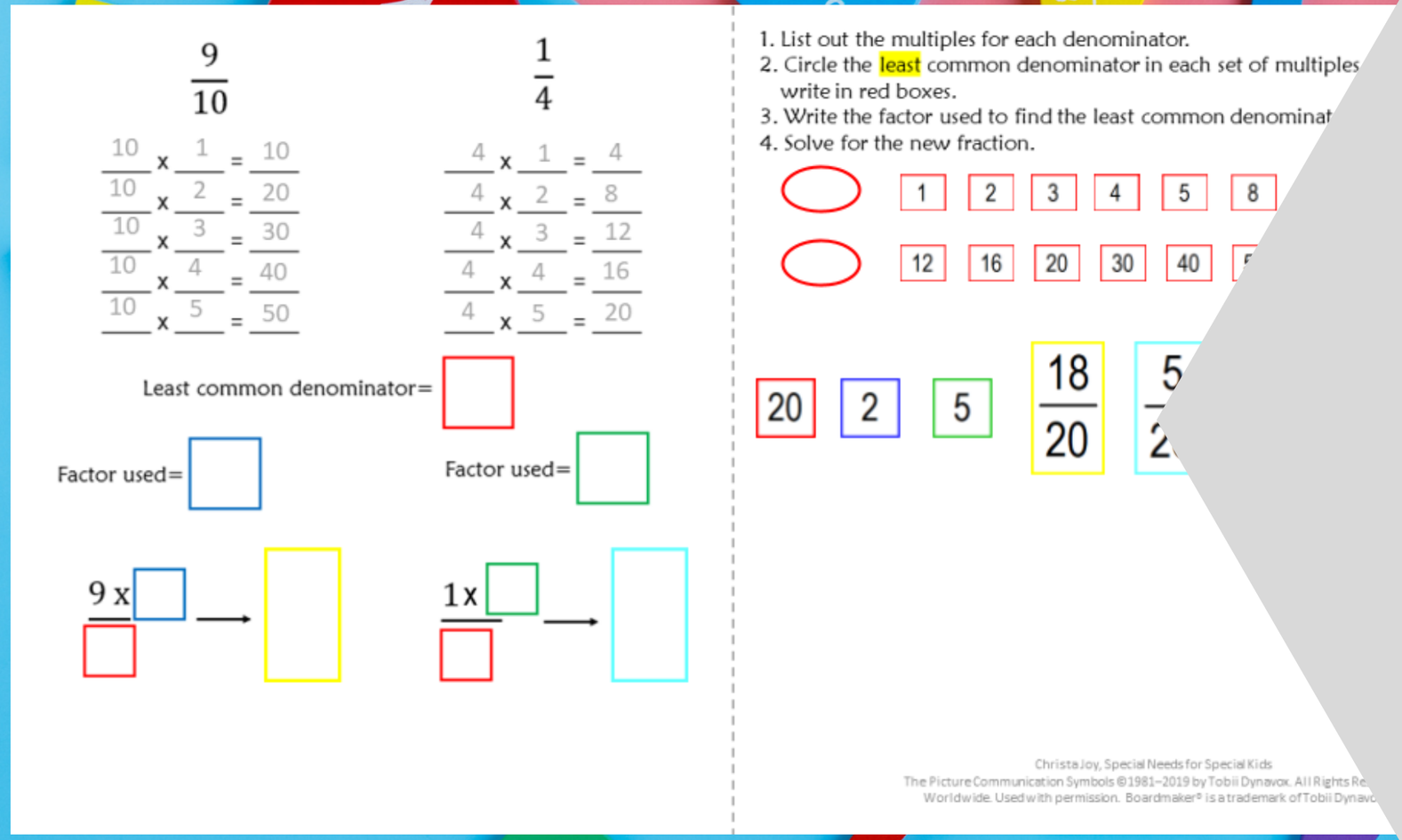
Watch the movie on finding the common denominator



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.



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



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.

I realize there will be some students out there unable to do cutting activities. I have a blog post with ways to complete activities without a pair of scissors!!

Click Here to read more!!