

5th Grade

one sixth

one sixth

1 out of 6

$$\frac{1}{6}$$

Word Problem

Solve It!

Guess What's On Your Partner's Chart!

Fraction Division Representation Multiplication Representation

Fraction Show Off

Materials: Number cards, fractions game cards (any except fraction pictures or mixed numbers), paper or math journals, pencils, fraction manipulatives

Directions: Mix up all the number cards and fraction cards in one face down stack. Have each player flip over 5 cards and choose two of them to multiply. You can select two fractions or a fraction and a whole number, but not two whole numbers. Use manipulatives, a drawing, or marks on a number line to make a model that represents the equation. Then have your partner look at the 5 cards you had and try to guess which two cards you used when multiplying. Your partner should write three things: 1) an equation to represent the problem, 2) a number sentence showing multiplication as repeated addition (i.e., $\frac{1}{2} \times 3 = \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{3}{2}$), and 3) the sequence of operations to use when multiplying a fraction times a whole number (explain how you solved).

Challenge: As you create your models, replace all improper fractions with mixed numbers. Your partner will have to work much harder to guess which cards you multiplied! You can also include other operations as you play and have your partner guess if you added, subtracted, multiplied, or divided your cards. Can you create a word problem for your equation? Challenge your partner to solve it!

Math Talk:

How did you decide which fraction card to use when multiplying?
Are there some fractions that are harder to multiply? Why?
What strategies helped you determine which fraction your partner multiplied?
How did you determine the sequence of operations when multiplying fractions?
How is multiplication of fractions related to repeated addition?

understandings of multiplication and division.

understandings of multiplication to multiply a fraction

Sugar Cookie Recipe
Makes 2 dozen large cookies
2 ¼ cups all-purpose flour
1 ½ teaspoons baking soda
1 ½ teaspoons baking powder
2 cups butter, softened
1 ¾ cups white sugar
2 eggs
1 teaspoon vanilla extract

Chocolate Chip Cookie Recipe
Makes 2 dozen large cookies
1 ½ cups all-purpose flour
1 ½ teaspoons baking soda
1 teaspoon salt
1 cup butter, softened
2 cups white sugar
2 eggs
1 teaspoon vanilla extract
2 cups semi-sweet chocolate chips

Peanut Butter Cookie Recipe
Makes 2 dozen large cookies
2 ¼ cups all-purpose flour
1 ½ teaspoons baking soda
1 ½ teaspoons baking powder
1 cup sugar
2 eggs
1 teaspoon salt
1 cup peanut butter

My Recipe Re-Write

_____ cups all-purpose flour
_____ teaspoon(s) baking soda
_____ teaspoon(s) baking powder
_____ cup(s) butter, softened
_____ cups sugar
_____ egg(s)
_____ teaspoon(s) vanilla extract

Number	Division Representation	Multiplication Representation	Key Words	Word Problems

My Tally Marks

1

My Recipe Re-Write

_____ cups all-purpose flour
_____ teaspoon(s) baking soda
_____ teaspoon(s) baking powder
_____ cup(s) butter, softened
_____ cups sugar
_____ egg(s)
_____ teaspoon(s) vanilla extract

Card Game

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I Love Music

Cards to Pick

Record This

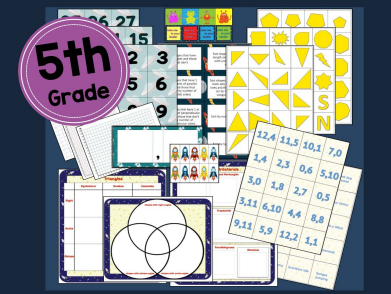
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FRACTIONS

12 math partner games

by Angela Watson

Check out the complete product line for 5th grade math!



5th Grade

GEOMETRY
7 math partner games

by Angela Watson

This image shows a collection of colorful geometric shapes, including triangles, squares, and circles, along with various math problems and diagrams related to geometry.



5th Grade

FRACTIONS
12 math partner games

by Angela Watson

This image displays various fraction-related math problems, including addition, subtraction, multiplication, and division, along with visual aids like fraction bars and number lines.

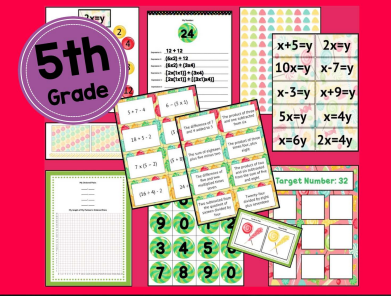


5th Grade

NUMBER & OPERATIONS IN BASE TEN
14 place value partner games

by Angela Watson

This image features a variety of place value charts, number lines, and math problems focusing on base ten operations and place value understanding.




5th Grade

OPERATIONS & ALGEBRAIC THINKING
6 math partner games

by Angela Watson


This image shows math problems involving algebraic thinking, such as solving equations like $x+5=y$, $2x=y$, $10x=y$, $x-7=y$, $x-3=y$, $x+9=y$, $5x=y$, $x=4y$, and $x=6y$, $2x=4y$. It also includes a target number grid and other algebraic exercises.



DISCUSSION STARTERS
for math problem solving

by Angela Watson

This image displays a stack of colorful cards designed to provide discussion starters for math problem solving. The text on the cards includes "Discussion Starters for Math Problem Solving" and "Questions for modeling & reinforcing mathematical practices".



QUESTION STEM
for math practices

by Angela Watson

This image shows several circular cards with question stems for math practices, arranged in a cluster. The text on the cards includes "Question Stems for Math Practices" and "Questions for modeling & reinforcing mathematical practices".

Fraction Division Challenge

Materials: Number cards, fractions game cards (any except fraction pictures or mixed numbers), paper or math journals, pencils, crayons/colored pencils (optional)

Directions: Put the number cards and fraction cards in their own face down stacks. Flip over one number card for you and your partner to share. Then have each player take three fraction cards. Each player chooses one of his or her fraction cards to divide by the number card and draws a picture to make a model that represents the quotient. Then have your partner look at the three cards you had and try to guess which card you used when dividing. Your partner should write an equation to represent the problem AND write a mixed number if the fraction is improper.

Challenge: Add the option of dividing a whole number by a fraction so that your partner has to determine which fraction card you used AND whether you divided the whole number by the fraction or divided the fraction by the whole number. Another idea is to create a word problem instead of a model for the fraction and number card you select. Solve the problem yourself but don't show the solution to your partner. Challenge your partner to solve the word problem by drawing a model or by using another strategy. Check your partner's work and compare strategies. Is there more than one way to represent the problem? More than one way to solve it?

Math Talk:



How did you decide which fraction card to use when dividing?
Are there some whole numbers or fractions that are harder to work with when dividing? Why?
What strategies helped you determine which fraction your partner used when dividing?
How did using repeated subtraction help you guess and solve?

CCSS: Apply and extend previous understandings of multiplication and division.

[5.NF.B.7](#) Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

[5.NF.B.7a](#) Interpret division of a unit fraction by a non-zero whole number, & compute such quotients.

[5.NF.B.7b](#) Interpret division of a whole number by a unit fraction, and compute such quotients.

[5.NF.B.7c](#) Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.

I can represent division of a fraction by a non-zero whole number in a variety of ways.

I can represent division of a whole number by a fraction in a variety of ways.

I can represent division of a fraction by a non-zero whole number and a whole number by a fraction in a variety of ways to solve real world problems.

This image is a comprehensive collection of 5th-grade math worksheets. The materials are organized into several sections:

- Top Left:** Worksheets for "Math Partner Games: 5th Grade Fractions" and "Equivalent Fractions".
- Top Middle:** Worksheets for "Fractions on the Line" and "Practice Writing Fractions".
- Top Right:** Worksheets for "Fractions on the Line" and "Practice Writing Fractions".
- Middle Left:** Worksheets for "Fractions on the Line" and "Practice Writing Fractions".
- Middle Middle:** Worksheets for "Practice Writing Fractions" and "Build a Fraction".
- Middle Right:** Worksheets for "Practice Writing Fractions" and "Build a Fraction".
- Bottom Left:** Worksheets for "Practice Writing Fractions" and "Build a Fraction".
- Bottom Middle:** Worksheets for "Practice Writing Fractions" and "Build a Fraction".
- Bottom Right:** Worksheets for "Practice Writing Fractions" and "Build a Fraction".

The worksheets include various activities such as:

- Fraction operations (addition, subtraction, multiplication, division).
- Decimal place value and rounding.
- Multiplication and division practice.
- Word problems.
- Games and puzzles.
- Blank space for student work.

Math Partner Games
5th Grade Fractions

Equivalent Fractions

Fractions on the Line

Practice Writing Fractions

Fractions on the Line

Practice Writing Fractions

Fractions on the Line

Practice Writing Fractions

Math Partner Games
5th Grade Fractions

Equivalent Fractions

Fractions on the Line

Practice Writing Fractions

Fractions on the Line

Practice Writing Fractions

Fractions on the Line

Practice Writing Fractions

Fractions on the Line

Fractions on the Line

Fractions on the Line

Fractions on the Line

Practice Writing Fractions

Build a Fraction

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1st Grade
2nd Grade
3rd Grade
4th Grade
5th Grade
6th Grade
7th Grade
8th Grade
9th Grade
10th Grade
11th Grade
12th Grade

Fractions on the Line

Fractions on the Line

Fractions on the Line

Fractions on the Line

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6/8 3/12 4/4
1/2 2/8 3/6
8/10 2/16 1/4

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Math Partner Games
5th Grade Fractions
17 pages designed for 5th grade

Table of Contents

3	List of games and skills/standards covered
4-5	Materials needed and assembly instructions
6-17	How to use math partner game routines
18-19	Two different blank math partner lists
20-33	Game instructions
20	Build & Decompose
21	Fraction Flip
22	Fraction Reaction
23	Fraction Word Problems
24	Guess My Chart
25	Fraction Multiplication Race
26	Fraction Show Off
27	Fraction Area Memory
28	Fractions on the Line
29	Recipe Re-Write
30	Fraction Division Square Off
31	Fraction Division Challenge
30-69	Game resources
32	Number cards
33-35	Fraction cards
36-37	Fraction word cards
38-39	Parts of a whole/set cards
40-41	Fraction picture cards: parts of a whole
42-43	Fraction picture cards: parts of a set
44-46	Mixed number cards
47	Fraction Flip game board
48-51	Fraction Reaction game boards
52	Fraction Word Problem game board
53-54	Guess My Chart recording sheet and game mat
55-57	Blank number line (can be used with Guess My Chart challenge)
58	Fraction Multiplication Race game board
59	Fraction Area Memory problem cards
60	Blank cards for Fraction Area Memory (can be used with other games)
61-62	Fractions on the Line game board
63-65	Recipe Re-Write game board w/ spinners, recipe cards, recording sheet
66	Fraction Division Square Off game boards (2)
67-68	Fraction Division Square Off work mats (can be used with other games)
69	Optional card pile organizers

List of Games and Skills Covered

Pg.	Game Title	Key Skills	CCSS
20	Build & Decompose	Adding and subtracting fractions with unlike denominators	5.NF.A.1
21	Fraction Flip	Adding and subtracting mixed numbers with unlike denominators	5.NF.A.1
22	Fraction Reaction	Adding and subtracting fractions with unlike denominators, solving related word problems	5.NF.A.1 , 5.NF.A.2
23	Fraction Word Problems	Solving word problems involving adding and subtracting fractions with unlike denominators	5.NF.A.2
24	Guess My Chart	Interpreting a fraction as division of the numerator by the denominator	5.NF.B.3
25	Fraction Multiplication Race	Multiplying fractions times a whole number	5.NF.B.4
26	Fraction Show Off	Multiplying fractions times other fractions and whole numbers	5.NF.B.4
27	Fraction Area Memory	Finding the area of a rectangle with fractional side lengths	5.NF.B.4
28	Fractions on the Line	Interpreting multiplication as scaling/ resizing	5.NF.B.5
29	Recipe Re-Write	Multiplying fractions and mixed numbers in the context of real-world problems	5.NF.B.6
30	Fraction Division Square Off	Dividing a whole number by a fraction and a fraction by a whole number	5.NF.B.7
31	Fraction Division Challenge	Dividing a whole number by a fraction and a fraction by a whole number	5.NF.B.7

Notes About Materials Needed

Unless otherwise specified, you can use ANY of the fraction game cards for any fractions game. A wide variety of cards are provided: fractions, fraction words, written parts of a whole/set, fraction pictures parts of a whole, fraction pictures parts of set, and even mixed numbers for an optional challenge. The type(s) of cards used will allow you to differentiate practice and allow students to construct knowledge in different ways.

There are also optional card organizers and work mats to help students keep their materials organized during game play.

Anytime the directions call for paper and pencils or math journals, know that you can substitute individual dry erase boards or laminated sheets of construction paper for students to write on and wipe off instead.

Be sure to print the game cards on stock paper or mount them on construction paper so students can't see through them!

The only items you need to supply in addition to the printables from this packet are:

- Class set of fraction manipulatives (such as fraction bars or strips—you can print and download these free in many places online, such as [here](#))
- Class set of page protectors (or you can laminate items)
- Class set of Vis-à-Vis (or dry erase) markers for writing on page protectors
- Class set of felt squares, socks, or other “erasers” for page protectors
- Class set of pencils, crayons/colored pencils, and paper or math journals (or use individual dry erase boards)
- Half class set of [clear spinner overlays](#), or paperclips to make your own spinners ([directions here](#)).

Game Assembly Instructions

Pg	Game	Materials	Instructions
20	Build & Decompose	Fraction cards, fraction manipulatives (leave out the halves and thirds pieces)	Print pgs 33-35.
21	Fraction Flip	Fraction Flip game board, fraction cards (mixed numbers only), fraction manipulatives, paper and pencils	Print pgs 44-47.
22	Fraction Reaction	One Fraction Reaction game board for each player (choose any of the four versions but make sure both players have the same type), number cards, paper and pencils	Print pgs 32, 48-51.
23	Fraction Word Problems	Fraction Word Problems game board, fraction cards, paper and pencil, laminated number line, Vis-à-Vis markers for the number line, felt squares or other erasers for the number line	Print pgs 33-35 and 52. Laminate game board (or place it in a page protector.)
24	Guess My Chart	Two Guess My Chart recording sheets in page protectors, two Guess My Chart game mats in page protectors, fraction cards, Vis-à-Vis markers, felt squares or other erasers for page protectors	Print pgs 33-35 and 53-54.
25	Fraction Mult. Race	Number cards, one Fraction Multiplication game board for each player (in a page protector), Vis-à-Vis markers, felt squares or other erasers for page protectors	Print pgs 32 and 58.
26	Fraction Show Off	Number cards, fractions game cards (any except fraction pictures or mixed numbers), paper or math journals, pencils, fraction manipulatives	Print pgs 32 and any pgs 33-39.
27	Fraction Area Memory	6 Fraction Area Memory problem cards, 12 blank cards, pencils, colored pencils (optional), scissors	Print pgs 59-60.
28	Fractions on the Line	Laminated Fractions on the Line game board (number line labeled with 1), Vis-à-Vis markers, felt squares or other eraser for the number line, fraction cards, number cards	Print pg 32, any pgs 33-43, and 61-62. Tape ends of the number line together.
29	Recipe Re-Write	Recipe Re-Write game board (with spinners on it), 3 recipe cards, work mats in plastic page protectors, Vis-à-Vis markers, erasers for page protectors, paper and pencils, fraction manipulatives, blank number line (or draw your own)	Print pgs 55-57 and 63-65. Assemble spinners. Tape number line together.
30	Fraction Division Square Off	One Fraction Division Square Off game board, two Fraction Division Square Off writing mats in page protectors, Vis-à-Vis markers, erasers for page protectors, number cards, fraction cards	Print pgs 32, any pgs 33-46, and 66-68. Place each mat in a plastic page protector.
31	Fraction Division Challenge	Number cards, fractions game cards (any except fraction pictures or mixed numbers), paper or math journals, pencils, crayons/colored pencils (optional)	Print pg 32 and any pgs 33-39.

Math Partner Games: 5th Grade Fractions

12 Common Core-aligned fraction and decimal games with Math Talk question prompts

How do math partner games align with CCSS?

The games in this PDF were created for (not retro-fitted to) the Common Core State Standards (CCSS) for fifth grade math. There are 1-3 games for each of the fractions standards. The table on page 15 shows you which standard(s) are addressed in each game.

The standards as well as “I Can” statements with child-friendly language are included in each game’s instructions. Since there isn’t one set of “I Can” statements that all states use, I’ve chosen terminology that I think is simple and easy for you to make sense of.

Additionally, the “Model and reinforce mathematical practices” domain of the CCSS is integrated in each and every game through the actual game play, the “math talk” discussion/reflection prompts, or both. (You can find [more math talk questions here](#).) The standards for math practices are:

- MP1 Make sense of problems and persevere in solving them.
- MP2 Reason abstractly and quantitatively.
- MP3 Construct viable arguments and critique the reasoning of others.
- MP4 Model with mathematics.
- MP5 Use appropriate tools strategically.
- MP6 Attend to precision.
- MP7 Look for and make use of structure.
- MP8 Look for and express regularity in repeated reasoning.

What's a math partner game?

Similar to math tubs, the math partner games I use are two-player games that reinforce a variety of math skills, including problem solving and logical thinking. The games are open-ended and easily differentiated and individualized.

Are math partner games the same as math centers?

It depends on your definition. Typically in my classroom, partner game time is separate from center time because centers are independent activities while math games are multi-player and encourage discussion and collaborative problem solving. However, if you have students complete math centers cooperatively, then math partner games would be a perfect fit!

There IS one major difference between the partner game arrangement I describe here and typical centers. When kids are in centers, usually you the teacher are working with a small group. Since you're busy teaching, it's hard to tell whether the rest of the class is actually learning anything in their centers and games or if they've just mastered the art of looking busy.

During the math partner game set up I recommend here, you are *not* responsible for small group instruction, so you're free to facilitate students' thinking and engage kids in conversations about what they're learning.

What are the advantages of using math partner games?

Math partner games are a great opportunity for the teacher to:

- Take anecdotal notes and/or assess children in meaningful scenarios
- Support students who are struggling academically as well as socially, because you'll have the time to help solve disputes and model social problem solving skills
- Challenge high-achievers who are easily bored
- Allow students to actively construct knowledge through collaborative hands-on activities
- Model logistical thinking and encourage discussion (great since connecting words and math is difficult for many students)
- Provide problem solving and math skill practice that kids really enjoy

How many times do kids play the same game?

Generally, students play the same game for an entire week so that they have time to master the rules. Once they understand the basics, they really start focusing on the targeted math skills, determining patterns and strategies, and engaging in higher-level thinking discussions.

For how long do kids play the games?

I prefer to have pairs of students work with each game for 7-15 minutes daily. Though some games naturally lend themselves to the shorter or longer end of that range, ten minutes is pretty optimal and a good target to aim for.

Though most of the games end only when time is up, ALL of the games are open-ended enough that students won't need to ask, "I'm done, now what should I do?" The instructions also provide a "Challenge" activity which you can have students do if they have time, or you can assign to certain students for differentiation. I usually have the class do the extra challenge for the last two or three days of the week, unless they haven't yet shown proficiency with the basic level of game play.

There are also "Math Talk" questions which you can have students reflect on in writing using math journals or other formats. Once a week (or even more often), you may want to allow several extra minutes for students to talk or write about the Math Talk questions.

How do I make time for math partner games?

There are many ways to incorporate game time into your schedule. I prefer using them daily for up to 15 minutes, but I've also used them as fun math practice on Friday afternoons for about 25 minutes.

For awhile, my district required that I conduct standardized test prep/spiraling review practice with the kids for 20 minutes at the start of the math period. I chose to follow that with 10 minutes for math partner games, and then launched into my math concept/skill lesson for the day. The active, hands-on partner games were the perfect way to clear students' heads before instruction resumed.

The fact that math partner games are a great way to break up long periods of direct instruction and guided practice is increasingly important as the CCSS


moves us toward deeper study of math concepts. Many teachers now have longer math periods and are expected to spend several weeks on the same topic (whereas before, we might have only had several days per concept). Math partner games are a way to fill that extra time with meaningful opportunities for students to explore and talk about math concepts.

How are kids paired up?

I recommend that math game partners be selected by the teacher (rather than self-selected) so that students are paired homogeneously. This is important because if you have heterogeneous pairs (mixed ability levels), the less advanced child will lose frequently and get frustrated. Kids only enjoy playing the games if they regularly experience success and feel like they have a fair shot at winning.

Another reason why I think it's better to pair kids with similar ability levels for math partner games is so that game play can be differentiated. You'll be able to spend more time supporting your struggling students since they'll be working together. And having your highest-performing kids paired together will be extremely valuable for them because they can play quickly and enjoy being challenged in a way that doesn't always happen during the average mixed-ability cooperative activity. Since most of us have students work in mixed-ability groups throughout the school day, math partner games can be a rare opportunity for students to work one-on-one with another child who's learning at a similar pace.

In addition, I think it's important to consider students' personalities when pairing. I don't like to pair kids who know each other too well because they'll play around, but if they don't like each other or are both very shy or competitive, there can be problems as well.

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Pages 18 and 19 are blank partner lists which you can fill out and display so students know who their partners are. Before sending students off to play the games, I usually have the class look at the list and raise their hand if their partner is not in the room so that I can re-partner students for the day as needed.

I generally make changes to the partner list based on my observations and student input. I've found that some kids want to keep the same partner for months, but most kids want to change partners every few weeks, and I try to accommodate them either way so they enjoy the games more.

For variety, I do allow students to pick any partner they want on special occasions (short weeks, days when we have an assembly and the math block is cut short, etc.) as well as when we go back to review previously taught skills. Some kids choose to play with friends that are more or less advanced than them, and that allows them to experience the game in a different way. Interestingly, I've found that about half the students still choose their regular math game partner: the kids tend to get into certain rhythms and playing styles and enjoy the familiarity.

Can students choose the game they want to play?

Yes! After 5-6 weeks (when you have introduced 5 or 6 games), you can let each set of partners choose one of the games to play, and have the class practice playing different games at the same time. I highly recommend doing that occasionally throughout the year, such as:

- ◆ Short weeks when you only have school for 2-3 days and therefore don't want to introduce a new game.
- ◆ When you want to review a variety of skills and concepts. Do two or three 10 minute sessions back to back, and let kids change their games for each session.
- ◆ When a lot of students are absent: let kids pick their own partners and own games for a special treat.
- ◆ At the end of the year when you have already introduced all the games.

When students are all playing different games, you may need to have printed directions available in case kids forget the rules. You should also talk with students about what they should do if they get stuck.

How do I use the "Challenge" section of the games?

You can offer the challenge as an option for students if they'd like to try it, or assign it only to certain students to differentiate game play. Another idea is to use that section after students have played the regular way several times, or later in the school year when reviewing previously taught skills.

How do I use the “Math Talk” section of the games?

You can teach students to talk about these questions with their partners, or ask the questions yourself as an informal assessment while observing game play. Or, use the Math Talk questions to facilitate mini-lessons and/or debriefing sessions before and after game play. The questions also work well as math journal prompts and written reflection topics.

How do I introduce math partner games to my class?

I strongly recommend that you model how to play the games FIRST. Introduce the games one at a time to your class, one game per week. During the modeling, you can demonstrate the basics of the game by playing against a volunteer. I used an Elmo (document camera) to help with this, placing the pieces under the Elmo so the class could see what was happening. I then guided two other volunteers as they played together for the class. This technique is a great way to model mathematical thinking and reasoning and draw attention to the math strategies you want students to use.

Right after the modeling/demonstration, release students to try playing the game with their partners. If you see a lot of kids making the same mistakes or demonstrating major misconceptions, end the game play time a little early. Talk about it afterward, and do more modeling the next day.

For younger students (and for most classes at the beginning of the year), I’d suggest modeling the game on the first *two* days students play it. The first day, your demonstration should be very in-depth and focus on what to do if kids get stuck or disagree with one another, as well as what to do when they’re finished and how to clean up the game properly. The second day’s demonstration can focus more on applying math skills and strategies. I often do two or three days of demonstrations/skill mini lessons with more complex games, even if it’s just quick refresher with two student volunteers before releasing the rest of the class to play.

Why not have kids play all different games at once, like in math centers?

I like having the whole class play the same game because you can conduct mini-lessons/strategy discussions around shared experiences before and after game play. Also, since students play the same game for a week, you have lots of targeted opportunities for identifying and addressing misconceptions and scaffolding student learning.

Could the games also be used as centers?

Sure! Its totally your choice how to use the games—they'd work just fine in traditional centers, math tubs, math work stations, etc. You could choose to play some of the games using the system I describe here, and place the rest in centers for kids to explore independently.

How do I open the math partner game time?

When you first introduce a game at the beginning of the week, you'll start your math partner game time with modeling. By mid-week, you can start the time with a mini lesson focusing on the higher-order thinking skills you want students to develop. You can pose particular scenarios that might arise during game play and have students suggest strategies for solving them, or mention a challenge that one team of students experienced the day before and have students talk about what they would do. You can also mention any classroom management issues that arose, or remind students of strategies you'd like them to use.

How do I close the math partner game time?

You can end the math partner game time with a whole-class debriefing session. Students can talk about what strategies worked well and which didn't. Use the Math Talk questions provided for each game to help you facilitate the discussion. Students can also reflect on these questions in writing (i.e. in math journals), or by talking with their partner (or a different partner in a turn and talk/think-pair-share activity.)

You can switch up your approach as needed, or make a schedule and debrief in a different way each day of the week. Again, the conversations will be more superficial at the beginning of the week and will move toward critical thinking as students have more experiences with the game.

How do I store and organize math partner games?

If you're using the math partner game system, you'll need to have *half* a class set of all your games. In other words, if you have 26 students, you need 13 sets of each game. The type of organizational system you choose should be based on the materials you have and the size/type of your math games. If you have lots of larger materials that you're using in addition to the games in

this PDF, you'll need to consider that in your planning. I'll share with you the systems I've used over the years, and then explain what I think is the best way to organize and distribute this particular set of fraction games.

My first year using math partner games, I simply had a milk crate full of plastic baggies with materials inside. As my collection of games grew, I started keeping the plastic baggies in plastic tubs (containers). Some were the small kind you'd find at the dollar store and some were larger like dishwashing tubs, depending on the size of the materials that went inside.



Eventually I found the toy organizer you see pictured above. (Mine was from Big Lots, but I believe you can still get something similar at Target.) I used the large, colorful bins to hold the partner games my class was currently using. There was one bin for each game, and each bin held the entire half class set of materials for that game. For most games, I had a plastic baggie or manila envelope for each pair of students, so the bin for a certain game usually had about a dozen baggies or envelopes inside. The games for units we weren't currently studying were hidden away in cabinets or other plastic containers.



I also kept one set of each game in a hanging shoe organizer, which you could see hanging on the door in the previous page's picture and as a close up above. Later in the school year, I'd allow students to choose the game they wanted to play. Each set of partners would simply walk over to the shoe organizer, pick a game and take out the materials, then return them after game play. I also allowed students to use the games in the shoe organizer at other times in the day (before and after school, during indoor recess, etc.) We called it "Free Choice Math Partner Games". I had a milk crate to hold the games that were too large to fit in the shoe organizer.

How do I pass out and collect the games?

For the games in this PDF, I recommend using just one baggie for each pair of students and put *all* the fraction cards in them. There will be many times when you want kids to use multiple sets of cards during a single game, so having them altogether makes sense and saves you plastic baggies. It's not a bad idea to mark some place on each card with a symbol, color, or number to indicate which bag it came out of, in case a stray piece is found on the floor. Of course, that's bound to happen!

Each day as you begin math partner games, write on the board which cards students should take out of the baggies. They can leave the rest of the cards in the bag (or even choose to include them if they decide with their partners to make the game more challenging.)

Each set of game mats/boards/number lines could be kept in a single file folder or manila envelope: ditto with other materials needed, like the spinners. Depending on how many games you use from this PDF, that could mean between 3-10 file folders, each one holding a half class set of boards.

When you're ready for students to play a game, place the file folder full of game mats (or other materials) and the set of baggies on a table. Have all the "Partner 1s" in your math partner list (see pages 18-19) come up to the table in an orderly line and take one of everything. The Partner 2's are responsible for returning the materials to the same spot after game play.

If you practice your expectations for this, the system for distributing and collecting game materials will go very, very quickly. Sometimes it helps to set a timer for one minute: at the end of the minute, all the partner 1s should have the necessary materials and both partners everyone should be in their "spot" in the room where they play the math partner games. If there is any pair of students who has not yet begun game play when the timer goes off, you can assist them with whatever they need to get started.

How can I save ink, paper, and time?

The same cards and game mats can be used for multiple games, so that helps a lot. Here are some other tips to help you save ink, paper, and time as you create the games:

✓ **Pick the games you want to use, and THEN print.** You'll probably find that there are more than enough games here and you won't have time to implement them all, so don't print anything until you're sure you'll use it.

✓ **Be selective about the game resources you print.** Some games have multiple game mats and cards that you may not need. For example, you may not need all the number lines that are included, or you might already have other number lines (or blank paper) for students to use. You also may not need all 6 types of fraction cards that are included (regular fractions, fraction words, parts of a whole/set, fraction pictures: parts of whole, fraction pictures: parts of a set, and mixed numbers).

✓ **Use only a digital copy of the game instruction sheets.** You can use an LCD projector with a document camera or interactive whiteboard to project the directions for the class to see if needed. But the only time you'll need a printed copy (other than possibly for yourself) is if you decide to place one copy of the game in a Free Choice Math Partner Game area like the hanging shoe organizer I described, or if you want kids to use the games in math centers/stations. In those instances, you could print a single copy of the instructions. But, for regular math partner game time, it's not necessary to print the instructions for each pair of kids. You will have already modeled game play for the class multiple times (which means they'll know the game far better than if they'd just read the directions), and you'll be walking around the room facilitating as kids play in case they need help.

✓ **Print most (or all) of the game resources in black and white and have students color them for you. Or, print onto colored paper!** Black and white copies can still be very visually appealing, and you have the option of printing onto colored stock paper or using colored pencils/markers to add interest. You may want to print your half class set in black and white, and then make one or two full color copies to use when modeling the game for the class and for later on if you place the games in your math centers or stations. You can let a different pair of students use the full color version each day as recognition of exemplary work in the previous day's math game time.

I'm ready! How do I get started?

Start by figuring out which CCSS or state standards you want students to practice through the games. The table on the next page of this packet tells you which games align to each standard.

Read the instructions for the games you're interested in, and check out the game resources (game mats, cards, etc.). Decide which ones are the best fit for your students' needs, and print! Use pages 16-17 to help you assemble the games and collect any extra materials you might need.

One final note: I encourage you to approach the games flexibly and allow kids to suggest their own rules and adaptations. I've found that many pairs of students will create their own point systems and their own contingencies to make the game more or less competitive, based on their preferences. Give kids ownership over the games, and have fun together!



BUT WAIT! THERE'S MORE...

I'm **Angela Watson**, the creator of this resource. I'm a National Board Certified Teacher with a masters degree in Curriculum and Instruction, and have 11 years of classroom teaching experience and over a decade of experience as an instructional coach. I currently work as a Productivity and Mindset Specialist in the area of educational consulting. In practical terms, this means I author books, design curriculum, and provide professional development services. Everything I do is centered on sharing more effective, efficient, and enjoyable ways of teaching and learning!

I founded my website ([TruthforTeachers.com](https://www.truthforteachers.com)) in 2003 to connect with other educators. You can now find thousands of ad-free articles and resources there from me and our K-12 teacher-writer's collective.

Check out my other resources below:

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