Dice and Card Games to Practice Math Facts



Card Games

Teaching Addition Math Facts to Kids With Go Fish!

This new twist on the old classic Go Fish! helps kids to learn addition by mentally working out simple math problems. Each round played practices math facts for a specific number, making it easy to stick with one set of facts for as long as needed to solidify them in the players' mind.

All that's needed to play this game is a standard deck of playing cards. It is best enjoyed with 2-4 players.

How to Play Go Fish!

1. Sort through the deck to remove all cards that are higher than that featured number for the math game. For example, if the goal is to learn addition facts for the number seven, the game will be played with ones (aces) through sevens.
2. Deal out five cards to each player and place the remaining cards in a draw pile.
3. Have each player look through his or her hand of cards to find any pairs that add up to the featured number and place them face up in their discard pile. For example, if learning addition facts for the number seven, appropriate pairs would be 6+1, 5+2 or 4+3. The 7 card would also be laid aside as a correct solution that doesn't require a pair.
4. The person to the left of the dealer may now ask any other player for a card that will help create the sum required. If the person asked has the card in his hand, he must give it up to the player that made the request. A player can keep asking for cards until no further matches are able to be made, at which point he is told to Go Fish! from the draw pile and the next player takes a turn trying to make a match.
5. If a player runs out of cards he can choose five more cards from the draw pile to stay in the game.
6. Continue playing until all the cards in the deck have been matched into pairs. The player with the highest number of pairs at the end of the game is the winner.

Learning Addition Facts by Playing Memory

The card game Memory, or Concentration, is another great game that can be modified to teach addition facts to kids. As with the instructions for Go Fish! above, each game focuses on math facts for a specific number.

All that's needed to play this game is a standard deck of playing cards. It can be played alone or with a group.

How to Play Memory

1. Sort through the deck to remove all cards that are higher than that featured number for the math game. For example, if the goal is to learn addition facts for the number six, the game will be played with ones (aces) through sixes.
2. Shuffle the deck and turn all the cards face down in a grid pattern.
3. Taking turns, have each player flip two cards to look for a matching pair. For example, if learning addition facts for the number six, appropriate pairs would be 5+1, 4+2 or 3+3. The 6 card would also be laid aside as a correct solution that doesn't require a pair.
4. Continue playing until all the cards in the deck have been matched into pairs. The player with the highest number of pairs at the end of the game is the winner.

Subtraction "War"

Play this fun card game with your child and before long those challenging subtraction math facts will be part of her mathematical skill set. Besides strengthening subtraction skills, this game also provides practice in comparing numbers. Your teacher will thank you: in school, second graders are spending lots of time going up and down the number line, counting objects, and developing deep understanding of these all-important number concepts.

What You Need:

- Deck of cards
- Kitchen timer

What You Do:

1. Shuffle the deck of cards and deal them face down, giving each player an equal number of cards until the deck runs out. Each player keeps his cards in a stack. Assign picture cards, such as jacks, queens, and kings, a value of 10. Give aces a value of 1.
2. Demonstrate to your child how to play the game: Each player turns two cards face up, reads the number sentence and supplies the answer. For example, if your child draws a 5 and a 4, he says 5 - 4 = 1. If you draw a 7 and an 2, then your number sentence is 7-2 = 5. Because your result is larger, you win the four cards and you put them at the bottom of your pile.
3. If each of you has a number sentence with the same answer, then it's war! At this point, you'll reverse the math "operation" and do an addition problem. Each player puts four cards face down and turns up two of them. The player with the sum wins all eight cards.
4. Set up the timer and play the game for 10 to 15 minutes. When the bell goes off, each player counts his cards. The player with the most cards wins. If one player runs out of cards before time is up, then the other player wins.

Get your game on! Subtraction Math War is an marvelous, high-speed way to build up math skills while spending a richly enjoyable time with your child.

Ten-Twenty-Thirty

Try this single-player addition game! All you need is a deck of playing cards to get started. Try to find sums of 10, 20, or 30 in order to clear cards. Practice your adding, and double check your work. If you can clear all of the cards, you'll win! "Ten-Twenty-Thirty" is a great way to have fun while practicing simple addition facts. After you've mastered the directions, check out the variations for new ways to play.

Skill:

- Addition

What You Need:

- One deck of playing cards (Print a deck.)

What You Do:

1. Shuffle the deck. Create a row of seven cards, face up. Place two cards on top of each of the seven so you have seven piles of 3 cards each. Arrange the cards so you can see the face value of every card.
2. Place the rest of the deck to the side, to be used later.
3. The object of the game is to remove a pile when the sum of all of its cards is 10, 20, or 30. All face cards equal 10. For example, if a pile has an ace, 9, and jack in it, it could be removed because its sum is 20 (1 + 9 + 10). Go ahead and remove all of the piles that equal 10 to start.
4. Deal a fourth card on top of every pile that remains. Remove any stacks that now equal a multiple of 10.
5. Deal a fifth card on top of every pile that remains. Remove any stacks possible.
6. Continue adding cards and removing stacks until your deck is depleted or the stacks have all been removed.
7. If you remove all the stacks first, you have won! If your deck is emptied first, try again.

Variations:

- Remove two sets of cards at once if their combined sum is a multiple of 10.
- Look for different sums, let's say 9, 19, and 29. Or multiples of 6

Ring Your Neck

Add up your cards in this strategy game. Deal 13 playing cards into a circle, face down. Take turns selecting one or two cards at a time and adding their values to your total. Carefully plan your moves. The player who picks up the last card will add 50 points to his score! Use a

calculator for help, if you'd like the game to focus on strategy, or use scratch paper if you'd like some extra practice with addition.

What You Need:

- One deck of cards (ace = 1, jack = 11, queen = 12, king = 13) (Print a deck.)
- One *Ring Your Neck* record sheet for each player (Print this out.)
- A calculator (optional)

What You Do:

1. Shuffle the deck. Then place 13 cards in the center of the playing area, face down, in a circle.
2. Players take turns picking up 1 or 2 cards at a time (their choice). Players write their score (the sum of their cards) on their record sheet.
3. The player who picks up the last card scores 50 extra points.
4. Deal another 13 cards. Play until ten rounds are over and the score sheets are complete. The player with the highest score wins.

Variations:

- Play multiplication-style. Multiply the card(s) that are drawn to the total. Start with a value of 1.
- Play subtraction-style. Start with an initial score of 1,000.
- Play division-style. Start with an initial score of 1,000,000.
- Change the number of cards in the circle.
- Change the value of all face cards to 10.

Pile it On: A Multiplication Game

Introduce multiplication to your child using a deck of playing cards and a die. This game provides an excellent demonstration of how multiplication works. First, players roll the die twice to find numbers for their multiplication fact. Then, they place cards in piles to create a visual representation of each fact. When solving their problem, players can count the cards or use the multiplication facts they already know. As patterns appear within the game, players will gain a better grasp on multiplication.

What You Need:

- One deck of cards (Print a deck.)
- One die (Make your own.)
- A score sheet for every player (Print these out.)
- Pencils

What You Do:

1. On a player's turn, they roll the die twice. Their first roll indicates how many piles they must make. Their second roll tells how many cards to place face down in each pile.
2. The player will then create those piles, add up the total number of cards used (either by counting them or by using multiplication), and record their score.
3. Play for ten rounds. The person who uses the most cards total is the winner.

Close Call: An Addition Game

Give this fun addition game a try! Challenge your child to create sums as close to 100 as he can, without going over. This requires him to evaluate all possible sums, based on the numbers he is given. He'll learn common patterns in addition as he works out the best plays. Try talking through the game with your child, asking him what he's thinking as he selects cards, and making discoveries together!

What You Need:

- Deck of cards
- Paper and pencils (for scratch paper)
- *Close Call* score sheets (Print these out.)

What You Do:

1. Remove 10s and face cards from the deck. Shuffle the deck and deal each player 6 cards.
2. Each player selects four of their cards and creates two 2-digit numbers from them. The goal is to create two numbers that have a sum as close to 100 as possible, without going over.
    - (For example, a player may choose to use the cards 4, 6, 8, and 1, creating the problem 14 + 86 = 100.)
3. After players have made their selections, they place their cards face up in front of them, arranging them so other players can see which two numbers they have created.
4. The player with the numbers closest to 100, without going over, wins a point. In the case of a tie, a point is awarded to each team.
5. Shuffle the cards before dealing another round.
6. Play continues for 5 rounds. The player with the most points after the last round wins the game.

Variations:

- Change the number of cards dealt, the number of cards used, or the goal.
- For younger players, restrict the number of cards dealt to 4 per player, allow them to use only 2 of the cards, create single-digit numbers, and set the goal to 10.
- To make the game more challenging, deal 8 cards to each player, let them choose 6, create 3-digit numbers, and set the goal to 1,000.

Toss Up: Addition to 100

Take turns tossing playing cards into the air in this fun addition game! Second grade is the time to master sums up to 100, and this activity provides a very engaging way to do just that. All you need to play is a deck of playing cards, paper and pencils. You'll take turns tossing cards and adding their values onto your totals. The first player to reach 100 points wins!

What You Need:

- One deck of playing cards
- Paper and pencils

What You Do:

1. Take turns drawing 3 cards from the pack and tossing them into the air.
2. Players earn points equal to the value of every card that lands face up. (Keep in mind aces = 1, jacks = 11, queens = 12, and kings = 13.)
3. The first player to reach 100 points wins!

Variations:

- Toss just two cards. Subtract the lesser card if both cards land face up.
- Multiply cards instead of adding them. Play to 500 points

"I'm the Greatest!" A Math Card Game

Grab a deck of playing cards, and let's go! Challenge your child to find the largest sums possible. Whoever can find the biggest answers gets the points! Your second grader will have fun while improving his knowledge of how addition works. He will better his understanding of addition as he uses a critical thinking process to determine the best position for each number. With this fun alternative to studying, we won't be surprised if the flash cards grow a little dusty!

Skills:

- Addition
- Place value

What You Need:

- One deck of cards (Print a deck.)
- Pencil and paper (for each player)
- Timer (optional)

What You Do:

1. The object of the game is to win points by forming the largest sum.
2. Remove tens and face cards from the deck. If you have jokers, add them into the deck. Jokers will equal zero.
3. Shuffle the cards. Give each player six cards.
4. Players have exactly one minute to make a 3-digit plus 3-digit addition problem using the numbers on their six cards. Players should experiment and double check their work to ensure they have the largest sum possible.
5. The player with the greatest sum wins the round and one point. The first player to earn 10 points wins the game.

Variations:

- For younger players, deal two or four cards and form 1 or 2 digit sums.
- Adjust or remove the time limit.
- Change the scoring so players earn the number of points in their sum. Change the name of the game to *Think Big!*
- Change the name of the game to *Small is Beautiful.* Create subtraction problems instead.
- Use more cards. Try adding four digit numbers or five digit numbers.
- Work on place value. Have players try to create the largest possible 6-digit number with their 6 cards.

Quick Stop: An Addition (or Multiplication) Card Game

Are you tired of worksheets and flashcards? This card game is a fun way to practice addition. Compete for the highest score as you flip over cards. Add up your cards until you reach 100 points. The first one there wins! Ready for a challenge? Check out the variations at the bottom of the page!

Skills:

- Addition
- Subtraction (see variations)

What You Need:

- Deck of cards
- Pencil and paper for every player (to add up scores)

What You Do:

1. Place a well shuffled deck of cards, face down, in the center of the playing area.
2. Each player begins by drawing one card and placing it face up in front of themselves. Players write the value of this card down at the top of their papers. (Aces are worth 1, and face cards are all 10.)
3. When all players are ready, everyone draws a second card. They add the value of these cards to their totals.
4. Keep playing until one player reaches 100.

Variations:

- Play until the deck runs out. The player closest to 100, without going over, wins.
- Add jokers into the deck. If a player draws a joker, their score drops back to zero.
- Start with 100 points, and subtract your way to the finish.
- Need a challenge? Use multiplication to reach 1000. (This is a good adaptation for a fourth grader!)



Build a Tower

Use Lego, pennies, wooden blocks, popsicle sticks or any basic building material you can find. Have players roll a pair of dice and add the two numbers. The player gets that number in building materials if the dice are added correctly and uses them to build a tower. Go through 10 or 15 rounds. The player with the tallest or most creative tower at the end wins. Instead of rolling dice, you may create a general math board and include a problem on each square.

Yahtzee – This affordable classic dice game from Milton Bradley combines luck and strategy. Players practice sequencing, critical thinking skills, addition and multiplication facts. The game retails for approximately $10; score pads can be purchased separately for around $4.

Bunco – A game entirely based on chance, rather than strategy, Bunco can provide a lot of educational fun for even very small children. The object of the game is to collect points for rolling certain combinations of dice. Keeping score can help to practice basic addition, and regularly calculating how many points are needed to reach the goal of 21 can be encouraged as a

way to practice subtraction facts. Bunco rules can be found easily in an online search, or the boxed game including dice, score cards and complete rules can be purchased at many large retail stores for around $15

Learn Multiplication and Addition Math Facts With Going to Boston

Also known as Yankee Grab and Newmarket, Going to Boston is a well known and easy to play math game that can help kids learn addition and multiplication skills. It can be modified to provide easier or more challenging versions, based on the skill level and age of the players.

Skills Learned

- Less than and greater than
- Addition
- Multiplication

Materials Needed:

- 3 dice
- Paper and pen for scoring

How to Play Going to Boston

Have each player roll one die. The player with the highest number goes first.

Each player in turn rolls all three of the dice. After the first throw, remove the die with the highest number and put it aside. Roll the two remaining dice and again put the highest number aside. Roll the last die and add up the numbers on all three dice to get the player's score for that round. Record the score on a pad of paper.

Continue taking turns moving clockwise around the table until all players have had a turn. The highest score for the round wins.

Play a number of rounds and either add up a combined score at the end or tally winning rounds to come up with a game champion.

Variations of Going to Boston

- Play with two dice for younger children to learn addition skills.
- Keep the lowest numbered die rather than highest for a slightly easier game that teaches addition skills.
- Increase the number of dice in the game to 4+ to learn more complicated addition skills.
- Learn multiplication by taking the sum of the first two dice and multiplying it by the third

Teaching Math to Children with War Math Game Using Dice

Based on the card game by the same name, this is a fun and easy dice game that can be modified to teach addition, subtraction and multiplication skills.

Skills Learned

- Less than and greater than
- Addition
- Subtraction
- Multiplication
- Place value

Materials Required

- 2 dice for each player
- Counters (beads, sticks, rocks, pennies, etc.) and/or paper and pen for scoring

How to Play War

Have each player roll one die. The player with the highest number goes first.

Each player rolls their two dice. The numbers on both dice are added together to come up with an individual player's score. The player with the highest scoring combination wins the round.

Winning rounds can be noted on a pad of paper with a tally mark under the winning player's name, or with counters such as beads, rocks, or pennies.

Play a number of rounds and have players add up their counter or tally marks at the end to come up with a game champion.

Variations of the Game War

- Play with one dice for younger children to practice basic less than/greater than sequencing.
- Learn subtraction skills by having players subtract the lower die from the higher die to come up with a number for each round.
- Increase the number of dice in the game to 3+ to teach more complicated addition skills.
- Practice place value skills by having players create a double-digit number from the rolled dice. For example, rolling a two and a five becomes either 25 or 52.
- Learn multiplication skills by multiplying the numbers on the two dice to determine the winning score.

Dice-based math games are a wonderful way for kids to learn addition, subtraction, and multiplication, as well as practice other mathematical skills. With some basic supplies and a little imagination, the possibilities for learning and fun are endless