



Take-Home Math Games!

The games below can all be played using a Deck of Cards, and they help students practice math skills. Email eelliott@hearttutoring.org with any questions.

CARD GAMES TO SUPPORT COUNTING

“Red Cards Win” – Students practice counting groups of objects.

Materials: Deck of Cards (All or just some of the cards can be used.)

- Mix the cards and deal them out so each player has the same number of cards.
- Each player divides his/her cards by color and counts how many of each color he/she has.
- The player with more red cards is the winner!
- Play several times, keeping track of “wins.”

“Counting Forward” – Students practice adding 1 to a quantity.

Materials: Deck of Cards and Number Line (remove Jack, Queen, and King.)

- Player 1 picks a card, tells the number that is on the card and then tells the number that is one more than the card. Then he/she uses the number line to see if his/her answer is correct.
- Player 1 keeps the card if he/she answered correctly. If not, Player 2 takes the card.
- Player 2 picks a card and does the same thing.
- Players continue to take turns picking cards and telling the number of the card picked and the number that is one more until all the cards are used up.
- To determine the winner, each player counts his/her cards. The player with the most cards is the winner.

Note: When playing with older siblings or adults, students should tell the answer for every card, keeping the cards when the answer is correct and giving away the cards when the answer is incorrect.

“Counting Backward” – Students practice subtracting 1 from a quantity.

Same rules as “Counting Forward,” but student tells the number that is *one less* than the card picked.

“Race to Make a Number Line” – Students practice in putting numbers in order from 1-10.



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Materials: Deck of cards (remove Jack, Queen, and King)

- Put the cards face down in a pile.
- Player 1 picks a card from the pile and places it on the table in front of himself/herself.
- Player 2 does the same.
- Player 1 then picks a second card and places it to the right or left of his/her first card, according to where it would go on an imagined number line of 1-10. If a duplicate card is picked, it should be put on top of the card that is already on the table.
- Player 2 then does the same.
- Players continue taking turns picking a card and placing it where it would go on the imaginary number line.
- The first player to complete his/her number line first or has the most numbers of the number line is the winner!

CARD GAMES TO SUPPORT MORE OR LESS

Note to parents: In addition to figuring out “how many” more or less, students often have trouble with the *language* of more and less. When playing the following games, help students practice using complete sentences to say how many more or less. For example: “Five is two more than three,” or “Four is two less than six.”

“War for More” - Students practice telling *how many more* one number is than another.

Materials: Deck of cards and Number Line. (Remove the Jack, Queen and King from the deck or let them equal 11, 12 and 13.)

- Split the cards evenly between the two players.
- Each person turns over his/her top card. The person with the higher number takes both cards after he/she tells “how many more” his/her card is than the other. Student can use the Number Line to help get the answer, if necessary.
- If the two players turn over the same card, they must do the following to “beat the tie.” Each person places three cards face down and then one card face up. The person with the higher card takes all the cards after he/she says “how many more” his/her card is than the other.
- Continue doing this until you’ve gone through all the cards. The game can end here with the person holding the most cards as the winner or the game can be played over and over using the cards each player has gathered until one player has all of the cards. That person would be the winner.

“War for Less” - Students practice telling *how many less* one number is than another.

Same rules as “War for More” except the person with the *lowest* card takes both cards after telling *how many less*.

CARD GAMES TO SUPPORT COMBINATIONS TO 10

Note to parents: The focus of these games is to help students “know” number combinations quickly, WITHOUT needing to count. This is very important for students and will help them greatly as they move to harder math problems involving much higher numbers.

“Finding Combos” – Students practice the many ways a number can be broken into two parts.

Before you begin, decide what the “special number” for the game will be. For children working with math facts to 10, the “special number” should be a number between 6 and 10. For children working with math facts to 20 the “special number” should be a number between 11 and 20.

Materials: Deck of cards (remove from the deck all cards higher than the “special number”) ***For this game you can let the face cards equal 11, 12 and 13, or you can let them all equal 10***

- Split the cards evenly between the two players. The first player places all of his/her cards face up on the table. Then he/she finds all the combinations that add up to the “special number.” The second person watches to be sure his/her opponent is making the right combinations.
- The second person then does the same thing with his/her cards.
- The person who is able to pick up the most combinations is the winner.
- **Extension:** Save all the pairs as the student makes them and places them face down. Before putting cards away, **turn over one of the cards in a pair and ask the student to tell what the other one must be.** This places the focus on subtraction rather than addition.

“Hiding Game” – Students practice finding the missing part of a number.

Before you begin, decide what the “special number” is going to be and put that number of cards face down on the table.

Materials: Deck of cards

- One player closes his/her eyes and the other player takes some of the cards away. The first person opens his/her eyes and tells how many are missing. If he/she can do so without counting, he/she gets a point. The players take turns doing this until someone gets 10 points.
- The more a child plays this game, the easier it will be for him/her to know how many is missing without needing to count. This is what all students should learn to do. It will help them greatly as they move on to harder math problems involving much higher numbers.
- It is good to play this game right after playing the “Finding Combos” card game above, focusing on the same “special number” to reinforce the combinations for that number.

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CARD GAMES TO SUPPORT ADDITION TO 20

Note to parents: Encourage students to think about using the combinations they know rather than counting one by one in their heads or on their fingers. For example: When adding 9 and 7, students should know that 1 is needed to make the 9 into a 10, leaving 6 to go with that 10; so the answer is 16.

“20 or Bust” – Students practice addition facts up to 20.

Materials: Deck of cards (J=11, Q = 12, K = 13)

- Choose a dealer.
- Dealer gives each player 3 cards.
- Taking turns, each player adds his/her 3 cards while the rest of the players watch to make sure he/she is adding correctly.
 - **Challenge (Optional):** Any player who adds by counting on their fingers or by ones has to receive a fourth card as a penalty. **Players should add using their knowledge of combinations rather than by counting on fingers.**
- Any player who has 3 cards that add up to more than 20 “busts” (loses).
- Whichever player has cards whose sum is closest to 20 but not over 20 wins!
- If there is a tie, deal an additional card to the players who tie and calculate the new sum. Whoever’s sum is closest 20 but not over 20 wins!
- Repeat and keep track of number of wins.

“Race to the Sum” – Students practice adding two numbers.

Materials: Deck of cards (J=11, Q = 12, K = 13)

- Divide the cards evenly between the players.
- On the count of “3,” all players turn over the top card.
- All players attempt to add the numbers on the cards shown.
- The first player to announce the correct sum keeps all of the cards.
- Repeat until one player runs out of cards. The player with the most cards wins.

If necessary, to even the odds, an older sibling or parent can give the younger student a 3 second “head start” before answering.

“Race to Subtract” – Students practice subtracting two numbers.

Materials: Deck of cards (J=11, Q=12, K=13)

Before beginning, decide whether to use the Jack, Queen or King as the “Master” card. Place this card face up on the table and remove the other face cards from the deck



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- Place the deck face down on the table.
- On the count of “3”, Player 1 turns over the top card and places it on the table.
- All players attempt to subtract this number from the “Master” card.
- The first player to announce the correct answer keeps the card.
- Players take turns turning over cards from the deck until all the cards have been used. The player with the most cards wins.

If necessary, to even the odds, an older sibling or parent can give the younger student a 3 second “head start” before answering.

CARD GAMES TO SUPPORT MULTIPLICATION

“Race to the Product” – Students practice multiplying two numbers.

Materials: Deck of cards (remove Face Cards)

- Divide the cards evenly between two players.
- On the count of “3,” both players turn over the top card.
- Both players attempt to multiply the numbers on the two cards shown.
- The first player to announce the correct product keeps both the cards.
- Repeat until one player runs out of cards. The player with the most cards wins.

If necessary, to even the odds, an older sibling or parent can give the younger student a 3 second “head start” before answering.