

WAR games for Fact Fluency

Materials: A deck of cards!

Addition War: Deal the entire deck to all players. Each player turns over 2 cards to find the *sum* (emphasize this language!). The player with the higher sum wins and takes all 4 cards; repeat this until all the cards are gone. The player with the most cards at the end wins.

Variations:

1. The player with the lowest sum wins the round and takes all the cards.
2. Choose a target number, such as 12; the player with the sum closest to the target number wins the round.
3. Turn over 3 cards and find the sum (this is appropriate for 1st grade and higher).

Subtraction War: Deal the entire deck to all players. Each player turns over 2 cards to find the *difference* between the numbers. For students in grades K-5, have them use the larger digit first. For example, if they turn over a 4 and 6, make sure they subtract $6-4=2$.

Variations:

1. Turn over 2 cards to make a 2-digit number, and then turn over 1 card. Subtract the 1-digit from the 2-digit to work on mental math with larger numbers.
2. Start with a target number such as 20. Both players turn over 2 cards. First, find the sum of the 2 cards, then subtract that sum from the target number. For example, turn over 4 and 9.
Step 1: $4+9=13$ Step 2: $20-13=7$

Multiplication War: Deal the entire deck to all players. Each player turns over 2 cards to find the *product*. The player with the greater product (or lower product — you decide!) wins. Play continues as normal.

Variations:

1. Create a "work mat" for visual learners where they can place the cards and see a multiplication and equal sign. This can be applied to any math war game.
2. Find the product of 2 cards as normal, and then multiply the product by 10 or 100 or 1,000 to build understanding of place value and operations. This is appropriate for students in grade 3 or higher.
3. Use dice or dominoes instead of cards so students become flexible with their number understanding.

Division War: Using division flashcards (you can buy or make your own), deal the cards out to all the players. Each player turns over one card with a division problem on it and the player with the greater (or lower) *quotient* wins.

Variations:

1. Using a deck of cards (not flashcards) turn over 2 cards to make a 2-digit number, and then turn over 1 card. Decide if the 2-digit number is divisible by the 1 digit number. Emphasize it is divisible when there is no remainder. For example, 29 is not divisible by 5 because there is a remainder. If neither partner has a divisibility connection then all the cards go into a "junk" pile.
2. Pick a target number such as 32: each player turns over 1 card and whichever card is a factor of 32, that player wins the round. So if the players turn over 6 and 8, the player with the 8 wins because 8 is a factor of 32.

Fraction War: Deal the entire deck out to all the players. Each player turns over 2 cards and creates a proper fraction (the numerator is less than the denominator), so if you turn over a 3 and 5 the fraction should be $\frac{3}{5}$. The player with the greater (or lower) fraction wins! Creating fraction mats could really help younger students. This is appropriate for students in grade 3 or higher.

Variations:

1. As their fraction understanding grows, they can compare improper fractions, so the 1st card turned over is the numerator and the 2nd card is the denominator.
2. Use benchmarks such as 0, $\frac{1}{2}$, and 1 to help compare fractions. Emphasize language when your children are struggling, "my fraction is greater than a $\frac{1}{2}$. Your fraction is less than $\frac{1}{2}$ so my fraction has to be greater than your fraction."
3. Pick a target fraction such a $\frac{1}{2}$ and whichever player is closest to $\frac{1}{2}$ wins that round!
4. For a real challenge, compare fractions to decimals or percents!