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# Ideas with IMPACT

STEM

## Math Magic: Unlocking the Power of Cards

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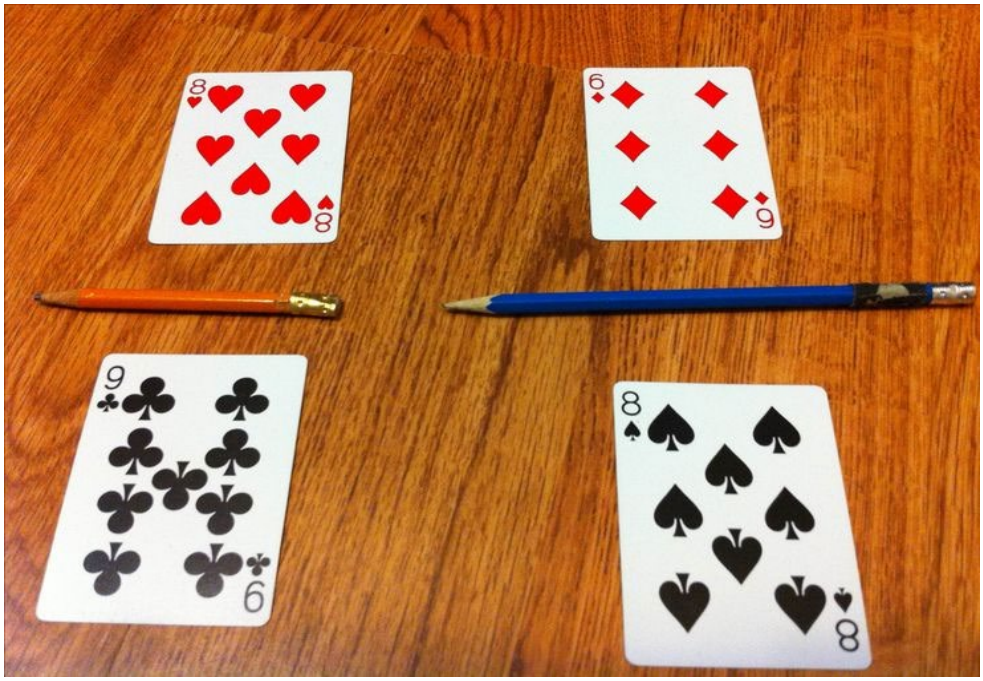
# Math Magic: Unlocking the Power of Cards



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## Goals and Objectives

The purpose of this project is to help elementary teachers make math class fun through engaging games and hands on activities. Using cards in the classroom will help students develop a deeper understanding of key mathematical concepts while enjoying an interactive learning experience. The key is to find games that are rigorous, include tons of opportunities for learning/reinforcement, and that are so fun that students don't even realize they are learning. This workshop will enhance your students' active engagement, collaboration, high order thinking, and problem solving. It fosters a positive attitude towards mathematics and promotes fun learning experiences and a long-term retention of essential mathematical concepts.

Teachers attending this session of Idea Expo will explore innovative ways of teaching mathematics through hands-on-experiences, increasing students' engagements, and deepening understanding of mathematical concepts. As a teacher, you will discover diverse ways to incorporate playing cards into the curriculum to capture students' attention and create a fun and enjoyable learning environment. Playing cards would also offer teachers versatile tools that can be adapted to distinct levels of differentiated instruction (DI). Finally, teachers will be able to use their own creativity to develop their own ideas and expand on the practice and concepts presented in the workshop.

## Florida Standards

- MA.1.NSO.2.1: Recall addition facts with sums to 10 and related subtraction facts with automaticity.
- MA5.NSO.1.4 Plot, order, and compare multi-digit numbers with decimals up to the thousandths
- MA5.NSO 2.1 Multiply multi-digit whole numbers including using a standard algorithm with procedural fluency

- MAS.5.NSO 2.3 Add and subtract multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency
- MA.5.FR.2.2 Extend previous understanding of multiplication to multiply a fraction by a fraction

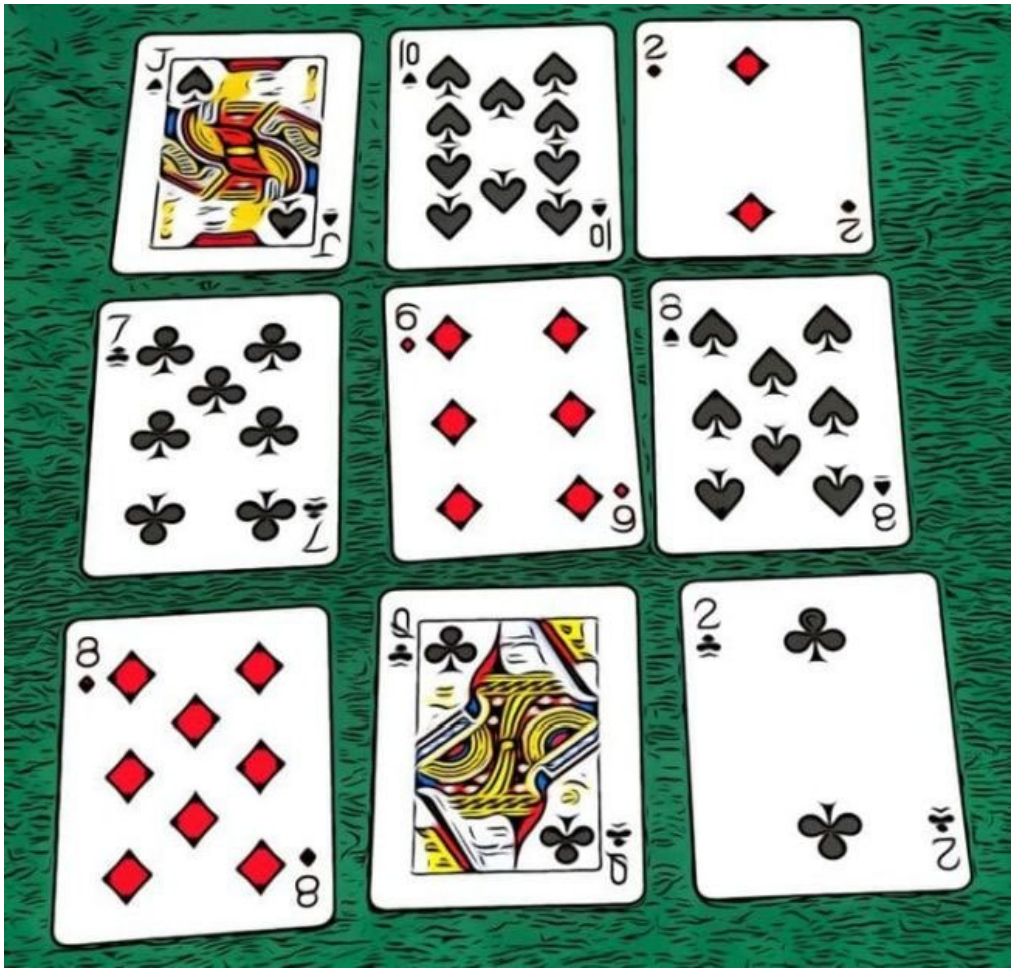
## Course Outline Overview

1. **Go Fish for 10 (Elementary/Primary Grades)**
2. **Match to Make 11**
3. **Race to 100**
4. **Card turnover and multiply (or add)**
5. **Declare a Fraction War**
6. **Salute, a multiplication Facts Game (or Addition for Primary Grades)**

## 1. Go Fish For 10 (Elementary/Primary)

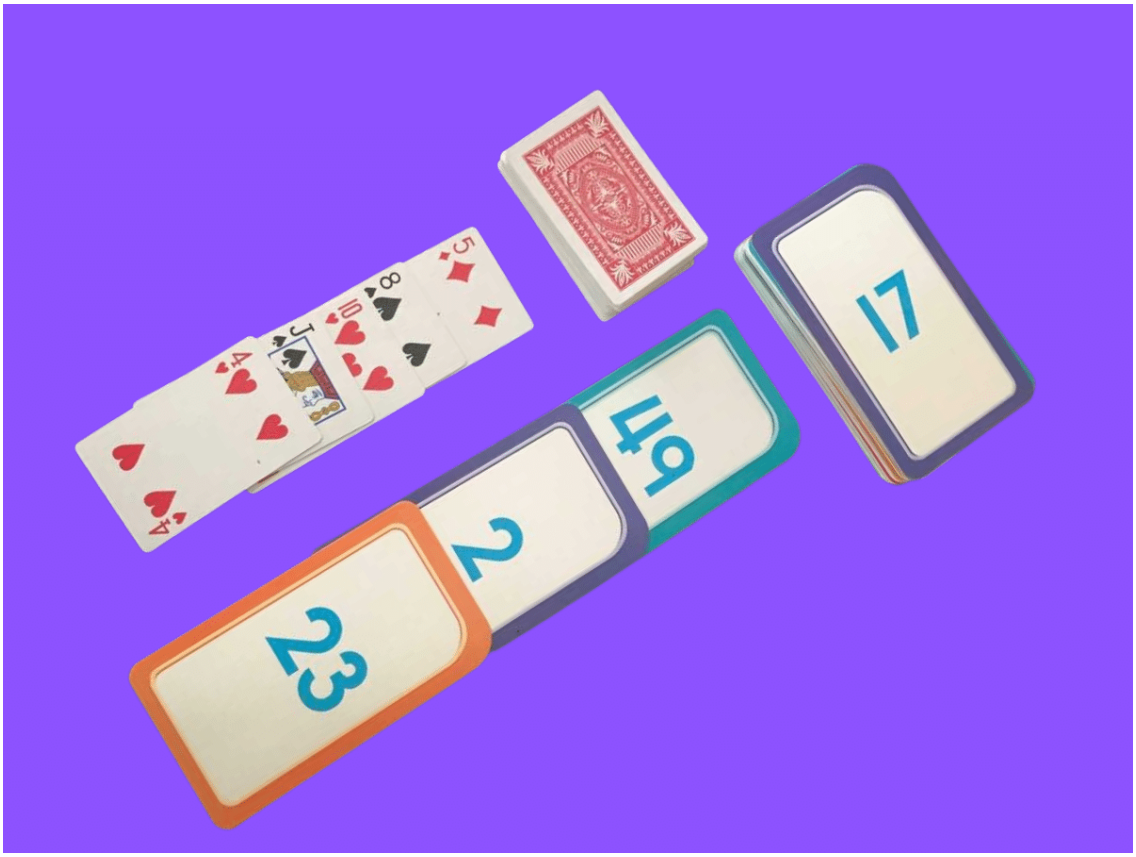
**Game Rules**: Each player gets a turn in clockwise order (to the player's left). During a turn, the player asks another player if they have a certain card rank totaling 10, including one or more cards from his/her hand. For example, if the player has a 2 card, they may ask Kathy if she has eights. If Kathy has any 8, then she must give it to the player. If Kathy doesn't have any, then she says, "go fish".

## 2. Match to Make Eleven



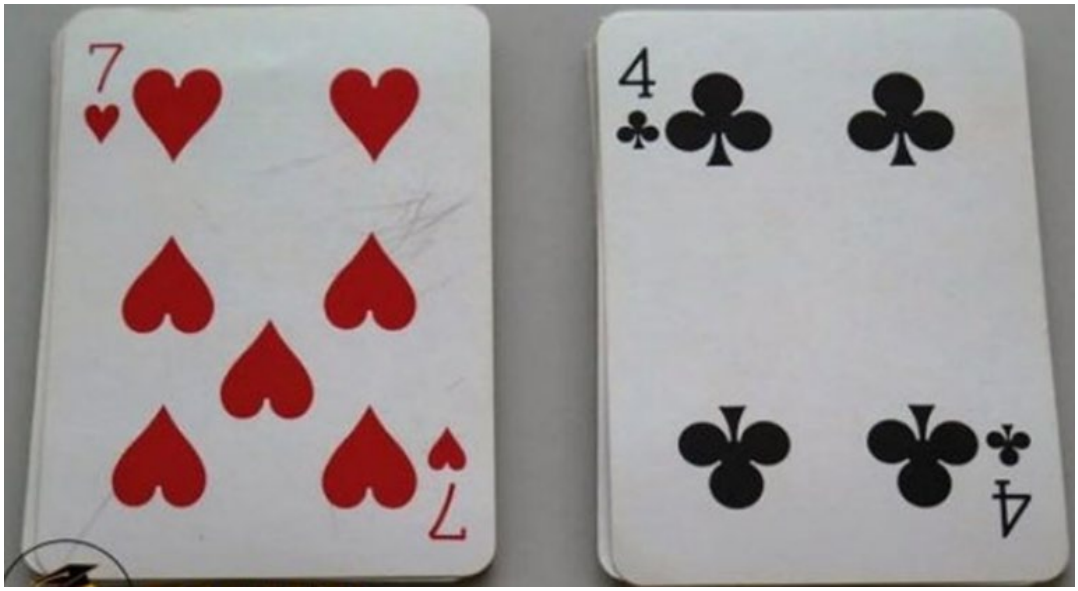
**Game Rules:** Lay out three rows of three cards each, face up. Then check to see if you can find any two cards that add up to 11. If so, remove those cards and set them aside. Replace them with new cards from the deck. Continue until you run out of cards or can't make any more matches.

### 3. Race to 100



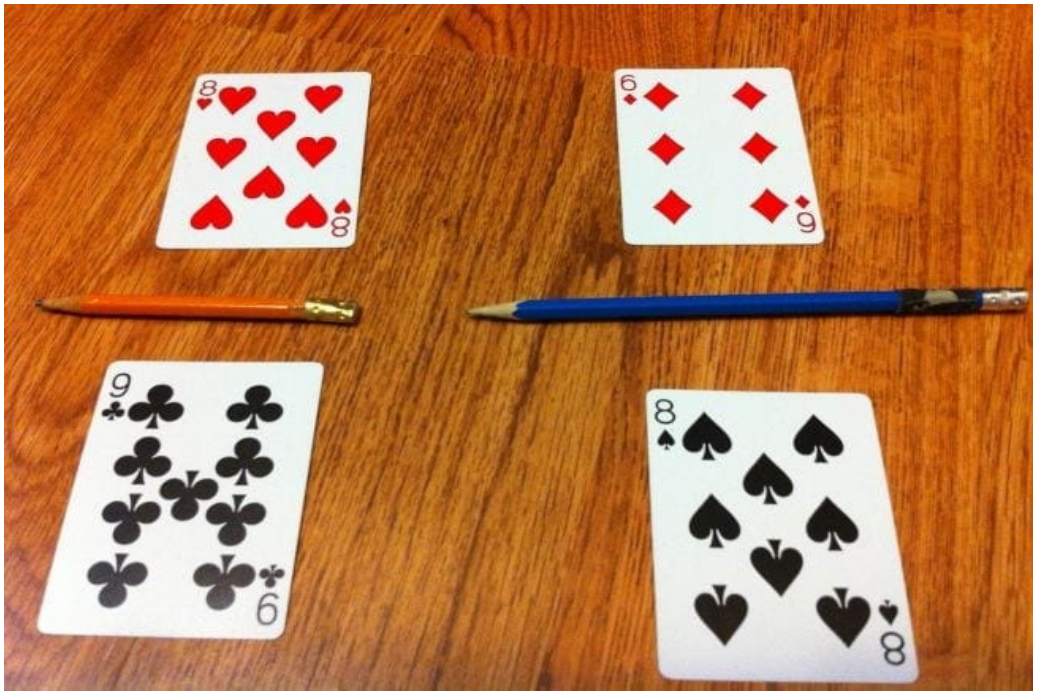

**Game Rules:** Flip a card and add its value to your running total. The first person to reach 100 without going over wins! (Remove face cards for younger players; use these values for older kids: Jack = 11, Queen = 12, King = 13, Ace = 0.)

**4.Card turnover and multiply (or add)**



**Game Rules** : This one is so simple! Have students pair up. One person flips two cards from the deck. The first student to multiply (or add, depending on what you want to practice) them correctly and call out the answer wins and takes both cards. Play continues until all the cards are gone, and the winner is the one with the most cards.

## 5.Declare a Fraction War



**Game Rules:** War is one of the original math card games, but this version adds a fraction aspect. Students deal two cards—a numerator and denominator—then determine whose fraction is the largest. The winner keeps all four cards, and play continues until the cards are gone.

**6. Salute**

**Game Rules:** This is a great Math multiplication facts game for speed and automaticity. To play, students need to get into groups of three. For this game, it works best if the students in each group are at a similar skill level. Each group will also need a deck of cards, with the face cards and jokers taken out (just keep the numbers 2-10). Two students sit facing one another, with the deck of cards between them. Player #3 sits off to the side so that she can see both players' faces.

Player #1 and #2 each pick up a card, and without looking at it, place it on their foreheads as shown below. They can see what each other has, but they do not know which card they are holding. Player #3 multiplies Player #1 and #2's cards.

So, if Player #1 has a 7 and Player #2 has an 8, Player #3 will say the product (56) out loud. Then the players perform a division equation to figure out which card they are holding. For example, Player #1 knows that Player #2 has an 8, so she can think, "56/8=7" to conclude that he has a 7.

## Resources List

1. Box Cars and One-eyed Jacks deck cards
2. Mega Fun Card-Game Math Book
3. How to Play Go Fish: 13 Steps (with Pictures) - wikiHow
4. 28 Math Card Games That Are Educational and Fun (weareteachers.com)
5. Card Turnover Math Game (topnotchteaching.com)
6. Fraction War (mathfilefoldergames.com)
7. Salute: A Great Math Fact Card Game for Speed and Automaticity - Shelley Gray (shelleygrayteaching.com)