Math Games that require only dice, a deck of cards, and your brain ! ☺

* Adapted from Box Cars and One Eyed Jacks

**Make 20**

**SKILLS**

* numbers to 20
* addition and subtraction to 20
* odd/even

**PLAYERS**

* 2 – 4

**EQUIPMENT**

* Grades 1 - 2: playing cards Ace (= 1) through 5
* Grades 2 - 3: playing cards Ace (= 1) through 9
* paper and pencil

**GETTING STARTED**

Each player writes out a gameboard on scrap paper that looks like this:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Each player begins the game at number 10 on their gameboard. The goal of the game is to get to 20 or 0.

Each player turns over one card from the deck of cards. That number determines the number of spaces the player can move on their gameboard.

* If Player 1 draws an odd-numbered card, he must subtract and move backward from his current place on the gameboard. He must move *back* (left) the number of spaces indicated on the card.
* If Player 2 draws an even-numbered card, she must add and move forward from her current place on the gameboard. She must move *ahead* (right) the same number of spaces indicated on the card.

The first player to reach a score of *exactly* 20 or zero is the winner.

**Multiplication War**

**Skills: Single and Double Digit Multiplication**

**Materials: A deck of cards**

**Players: 2-3**

Decide on what value your face cards will be, or if you remove them completely (example: jack =10)

Each player flips over one card, the first player to say \_\_\_\_\_\_ groups of \_\_\_\_\_ equals ( the answer) scores both cards.

Repeat until your stack is empty.

The player with the most cards wins!

When multiplying it is very important your child says \_\_\_ groups of \_\_\_\_ equals so they solidify the concept of the numbers being in equal groups. ☺

Extension Variation:

Flip Two cards for the first number and one for the second.

Allow students time to work this out in a math journal or on scrap paper to figure out the answer

**Place Value Snap**

**SKILLS**

* place value 1 to 1000
* immediate recall

**PLAYERS**

* 2

**EQUIPMENT:** Playing cards Ace (=1) through 9

**GETTING STARTED**

Two players sit side-by-side and divide the cards evenly between themselves.

At the same time, each player turns over one card. One player is assigned to turn over the number in the tens place; the other player turns over the number in the ones place. The player who calls out the correct number first gets to keep both cards.

You could write the place value (hundreds, tens, ones) on scrap paper to help place the cards in the correct place.

For example:
--- The player who is assigned to turn over the tens place card turns over a 5.
--- The player who is assigned to turn over the ones place card turns over a 7.
--- The first player to call out the number (57) gets to keep both cards.

Play continues until one player has collected all of the cards. In the event of a tie (both players call out the number at the same time), players leave their cards in a "tie pile."

“Tie Pile”: This pile builds until one player gives a correct answer before the other.

That player will take the two cards just turned over *plus* all of the cards in the tie pile.

**VARIATION**

Play with three or four cards and build numbers into the hundreds (or thousands).

For extra practice have your student write out the number words in a journal for these numbers. Assist them with spelling them correctly

Students can also break apart these numbers into expanded form and record this in a journal to solidify their place value understanding.

Example: 784 = 700 + 80 + 4

**Fishing for Division Facts**
(grade 3 and up)

**SKILLS**

* beginning division facts

**PLAYERS**

* 2 - 4

**EQUIPMENT**

* playing cards Ace (= 1) through King, Jokers removed; Jack = 12, Queen = 14, and King = 16
* Multiplication Chart

**GETTING STARTED**

Each player is dealt five cards from the deck. The remainder of the deck is placed face down in the middle of the playing area.

Players take turns asking another player if he or she has a specific card. Players are searching for numbers that will match numbers they already hold in their own hands.

Players ask by creating a division question to ask.

**Example:**

* Do you have any cards where 12 is divided by 3's (4's)?
* Do you have any cares where 10 is divided by 2's (5's)?
* Do you have any cards where 7 divided by 1's (7's)?

If the player asks *Do you have any 12 divided by 3's?* to a player who has a 4 in his hand, that player must give up his 4 to the player who asked the question. The player who asked the question now has a pair of 4's. She puts them down in front of him/herself.

Each player may continue asking questions until they are unsuccessful in finding a match. If a player does not have the number asked for, she says "Go Fish" and the player asking the question takes a card from the top of the deck. If that card results in a match, he puts down the matched set in front of himself. If there is no match, he keeps the card in his hand and the next player takes her turn.

Play continues until one player is out of cards. Players count up their pairs. The player with the most pairs is the winner.

**Notes:** This game will take practice and thinking time, allow your child to use a multiplication chart or review questions ahead of time with you.

**Race to 1000**

**SKILLS**

* place value to 1000
* odd/even

**PLAYERS**

2 or more

**EQUIPMENT**

* playing cards Ace (=1) through 9
* die
* paper and pencil

**GETTING STARTED**

Each player takes three cards from the deck and makes a 3-digit number between 111 and 999. Players say their numbers aloud.

Player 1 rolls the die to determine who wins 100 points for the round.

* If Player 1 rolls an odd number (1, 3, or 5), the player who has the *lowest* number formed by the three cards earns 100 points.
* If Player 2 rolls an even number (2, 4, or 6), the player who has the *highest* number formed by the three cards earns 100 points.

Players must read their numbers aloud. Players continue building numbers and alternating the roll of the die. Each player records his or her points on the scrap paper or in a math notebook. The first player to accumulate 1,000 points is the winner.

**VARIATION**

Two dice may be thrown and added together before determining whether the total number rolled is odd or even.

**Double Trouble**

**SKILLS**

* adding and subtracting to 18
* adding double digits

**PLAYERS**

* 2 players of equal skill

**EQUIPMENT**

* playing cards Ace (=1) through 9
* a die

**GETTING STARTED**

Place the deck of cards in the middle of the playing area. One of the players turns over a card and the players double the number (value) of the card to arrive at the sum.

Next, the die is rolled. Players must subtract the smaller number (between the card and die) from the larger number. The first player to say aloud the correct answer collects the card.

**Example**

* A player chooses a 4 from the deck of cards. The players double that (4 + 4 = 8) in their heads.
* A player rolls a *6* on the die. The players subtract 6 from the 8 for a total of 2.

In the event of a tie (players give the same answer at the same time), the card is left on the table and play resumes until one player says the correct answer before the other. That player will take all of the accumulated cards on the table.

Play continues until the common pile is gone. The player with the most cards is the winner.

**Multiplication Dice Toss**

**SKILLS**

* multiplication facts to 36 (or 144 in the variation)
* immediate recall

**PLAYERS**

* 2 - 4 players

**EQUIPMENT**

* 2 dice
* counters -- pieces of cereal (Cheerios or Chex, goldfish, lego, or coins, for example) make good counters

**GETTING STARTED**

Player 1 rolls the dice. Players multiply the two dice. Play should say \_\_\_ groups of \_\_\_\_

The first player to say aloud the correct answer collects one counter and becomes the next dice roller.

If there is a tie -- if both players say the correct response at the exact same time -- then both players may pick up a counter.

Players must give back a counter for any incorrect answer that is called out.

After a set amount of time, players count up their counters. The player with the most counters is the winner.

**VARIATION**

Play the game using multiplication facts to 144. In this version of the game, each player rolls 2 dice together to be added. Write the number down on scrap paper and repeat. These two numbers will then be multiplied.

**Example**

* On the first roll, the player rolls a 6 and a 3, for a total of 9.
* On the second roll, the player rolls a 4 and a 7, for a total of 11.
* The first player who calls out the correct answer to 9 x 11 (99) earns a counter.