



Prevent the Summer 'Math Slide'

It's a great time to play Math Games



Children enjoy a long summer vacation and play a lot of internet games on their own. Still they are on the lookout to **have fun playing with other kids or adults**.

Did you know kids loose on average 10 weeks of math knowledge over the summer? Usually referred to as **the Math Slide**. You can take action: keep the patterns, shapes and numbers going to prevent this. Enjoy playing board games, card games, dice, and domino games. Kids love to discuss their best strategies and to keep score, a math activity in itself.

Hands-on board games are a great way to introduce younger kids to patterns an numbers. You can adapt the games to make sure all kids can participate, consider starting with counting and sorting everyday objects. For best math learning, in general **do not emphasize speed** until all math facts are memorized and easily retrieved (automatized), better to **ask what they think** and **share your strategies**.

Children enjoy making their own playing cards from note cards. Let them be creative with colored makers making dot patterns and numbers, use stickers etc. there are endless options, that all will add to the fun. Suggestions to use self made cards with dots or numbers or store bought playing cards learn numbers and counting while playing a game:

1. make stacks **counting backward** from 5;
2. stack cards with **one more and one less**, like with blink;
3. **add** two consecutive cards to play war;
4. turn cards and make **rows** that add up to **five** (1+1+1+2) etc.
5. turn cards and make **rows** that add up to **ten** (2+3+5) etc
6. play **memory** (turn over the cards to find pairs)
7. start a **pattern** with **colors, shapes or numbers** and try to find the next card

When you go for the store bought games, here are some suggestions for board games and card games for visual perception and math.

➤ Visual perception, patterns and concentration

SET is an award winning family game of **visual perception**, using patterns and shapes, no numbers. There is also Set Junior from age 3 by Marsha Falco at SET Enterprises. You're in for hours of fun!

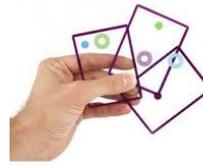
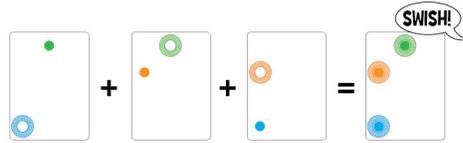


IOTA cute cards in a small tin, search and combine patterns, colors and shapes, for 2 - 4 players, from age 8 (Gamewright). The kids sharpen their brain without realizing it.

SWISH has funny transparent cards and is about location: without realizing the kids understand slides, turns and flips (translation, rotation, reflection) and combinations. For older elementary till adults.

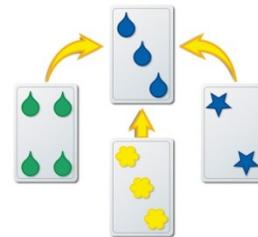


- 1 Lay out 16 cards in four rows of four.
- 2 Race to find a Swish and collect those cards.
- 3 Player with the most cards at the end wins!



➤ **Subitizing (recognizing a quantity without counting) , patterns and numbers**

BLINK has game suggestions and the cards can be used to play all sorts of games with younger kids who do not read numbers yet, like one more and one less. A great way to practice number patterns to five.



PHASE 10 is a card sorting game, the cards do not look 'cluttered' and can be used for other Math games



RATUKI has cards using different symbols to show 1 to 5, there are several sets with different colors. So they can be used for sorting by younger kids as well. The original rules say you need to make stacks (as many stacks simultaneously as there are players) with increasing numbers, using your own draw pile and 'junk' pile with at most 3 cards in your hands. Sounds easy, but the stacks are always changing: enjoy!

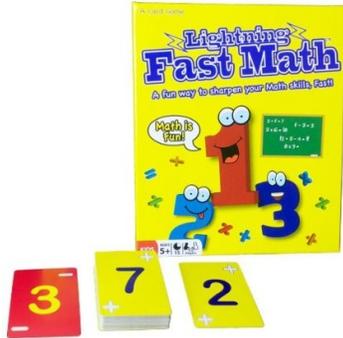
And obviously you can play all these games using a set of **UNO cards** too, be creative!



DOMINOES is an age old strategy game that children as young as 4 years of age can play by using colored dots or pictures. The regular game of dominoes can be challenging for adults too. There are numerous **domino games** for math too: **fraction domino**, **equivalency domino** etc. both as store bought games or downloadable from educational websites.

➤ **Math fact practice with a twist**

QUICK PIX is another award winning game, for age 7 and up. It focuses on **addition and subtraction till 20**. You need to find the right answer card for your question cards. You can play for speed, but better to go for correctness. **Also available for multiplication and division.** (by Aristoplay)



Lightning Fast Math for **addition, subtraction, multiplication, and division** of cards of the same color and operation; starting from age 5 and up for 3 - 5 players. For younger players hold the multiplication and division cards. Emphasize correctness over speed, let a player call 'add' or 'take away' than give time to work it out. (by Continuum Games)

SMATH is a family game for max. 4 players like Scrabble, but with numbers. You can choose using addition, subtraction, multiplication and division, but for younger players stick to addition and subtraction. (by Pressman)



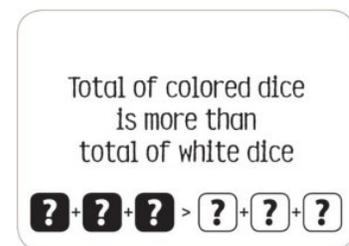
MANCALA for Kids comes in various types with child friendly counters

MAKE 7 is a game with a standing frame to drop numbered disks in that add up to seven, kids love to see the disks drop through the round openings in the standing frame! (by Pressman)



SHUT THE BOX GAME is a strategy game adding the numbers on two dice

EVEN STEVEN'S ODD MATH GAME to learn the faces of the dice by subitizing instead of counting, during play with fast repeated rolling of the dice to get the combination on a game card. (by Smilemakers)



TEN FRAME TOWERS



Ten frames are widely used in math and chances are your elementary school children already know them. Since there are **no written numbers involved**, you can use this game with 4 and 5 year olds. The Ten Frame Towers game shows the ten bonds with stacking manipulatives. Also very nice for younger kids to **make number patterns in play-dough** or to do sorting games.

➤ Learning place value from 3rd grade



SPEED PLACE VALUE, by Educational Insights, please always emphasize correctness over speed



PLACE VALUE DICE To be used with many different games to compare, add and subtract big numbers rolled with a set of place value dice (teachers stores) Keeping score is practice too!

WAR

Math War. There are many variations of this game: from addition and subtraction to multiplication and division war. You can use home made or any type regular playing cards or use these specially designed cards for multiplication or division.

Always **keep it fun**, try to resist the urge to use the cards as 'traditional flash cards'! That may send the wrong message that math is mainly about speed and rote memory. Did you know the **speeds drills are associated with math anxiety**? We want our kids to like math, take the time to think about numbers and learn to reason: use a math fact they already know to find out about a related fact that is still (relatively) new to them. Playing cards can spark a conversation about how they arrived at the answer and how the opponent checked it. Don't forget to **praise the deep thinking!**

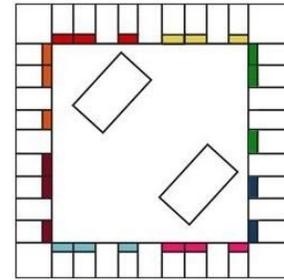


➤ **Board games**

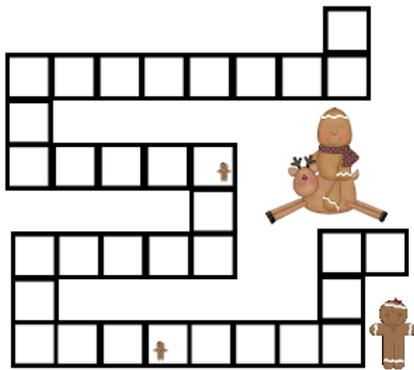
CANDY LAND many children will be enticed to play this well known board game

LIFE is another famous game that can spark conversations about managing money

MONOPOLY comes in a great number of formats, related to sports clubs, cities, your family's experience or make your own game board (empty template at coronetpublications.net)



These are just a small selection of board games and you can find many great game boards to print on the internet as well that you can personalize.



CONTIG GAME AND CONTIG JUNIOR GAME

An addition strategy game for three dice, game board free download at www.mathwire.com, select Topics - Games - Number Sense Games - Contig. Try their **TRIBULATION GAME** too !



➤ **Fraction games**

To make your own pizza fractions, consider folding and cutting **colored cake doilies** or **origami paper**.

Pizza Fraction Fun games are available from several producers such as Learning Resources or Scholastic



- several games in one, like how many ways are there to build a whole pizza
- identify and match fractions
- using double sided pizza pieces and spinners

FRACTION FORTRESS stacking reveals the equivalent fractions (Junior Learning)



FROG POND FRACTIONS GAME by Trend Croak the frog teaches the beginning concepts of fractions, the relationship of parts to wholes. Game promotes quick play and offers hands-on learning with squeezable, solid foam fraction pieces. People with multiple skill levels can play together and game adapts as skills progress. http://shop.educationalllearninggames.com/Award-Winning-Games_c6.htm

FREE-RANGE FRACTIONS GAME: shows all possible fractions with 12 halve white and half brown eggs. First you select the proper denominator rings, than you show the numerator with the color of the eggs, answers are on the back of the cards, a winner **by Educational Insights**



FRACTASMIC is a great fractions game: make a whole egg carton, a full water bottle, and whole inches. Can be played with original rules or you can make your own to accommodate younger kids.



➤ **For the pro's**

THE 24 GAME by Suntex International is harder, can also be used for older students and even adults, it has several variations to make 24, the dots in the corner indicate the level, this is how many points you get when you can solve that card

Original 24 game

24 game fractions / decimals

24 game double digits

Three levels of challenge, Ages 11 & up.



There are many many other good math games out there, and please don't overlook the classic thinking games: **MASTERMIND, CHECKERS AND CHESS**

Happy summer gaming!

