



Math Magic – Gloria Hoffner – BA, ADC, AC-BC, CDP

Guitarwithgloria@yahoo.com Guitarwithgloria.com

610-209-0964

Author of Science for Seniors and Brain Boosting Games

Why add Math Games to your activity programs?

Reading, writing and arithmetic can it be an effective intervention for restoring cognitive function in people with dementia. Japanese researchers reported in the Journal Jamda (published January 2015) on a six-month intervention where residents were evaluated in their reading, writing and math skills and then participated in math activities. The result was people with dementia who did math showed marked improvement in many areas. Some went from refusing to get out of bed, unable to write numbers, to being able to get up and socialize daily and calculate numbers on a worksheet. **The benefits came from residents doing 30 minutes of real math – addition and subtraction – three days a week.**

According to two recent studies supported by the National Institute on Aging, people who have early stage Alzheimer's disease have far more capacity to learn new things than previously thought. Researchers in Miami, Florida found that mildly impaired Alzheimer's patients who took three to four months of "cognitive rehabilitation" classes had a 170 percent improvement in their ability to recall faces and names, along with a 71 percent improvement in their skill at giving the proper change for a purchase. This report followed an earlier study from Washington University in St. Louis, which found that older people in the early stages of Alzheimer's retained working levels of "implicit memory" (when information from the past pops into mind automatically without the person trying to remember) similar to that in young and older adults who were free of Alzheimer's.
Source: Alzheimer's Dementia Care

Case Western Reserve University in 2012 published a study on people with Alzheimer's and Parkinson's diseases and bingo. The study found NOT that playing bingo benefited the brain, but rather that large contrasts such as black numbers on white playing boards helped residents' visual perception. Thus the findings were not, as some headlines reported, that bingo has benefit but rather contrast helps improve vision in these residents.

Games that involve concentration and focus enhance the brain's capability to utilize and stimulate brain cells and keep neural pathways open and functioning, according to research by evSky incorporated.

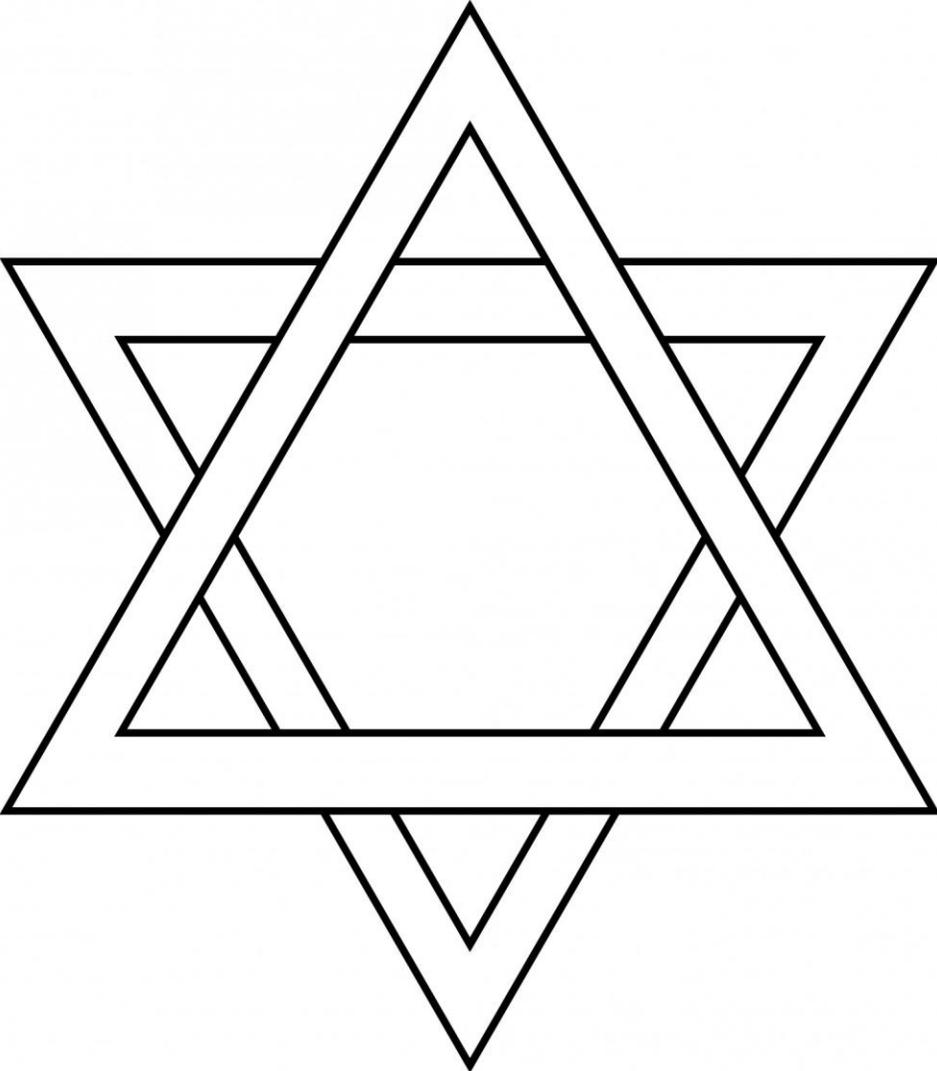
Computer games – combine mental and physical activity.

Jigsaw puzzles and Sudoku - focus on concentration and memory.

How do I get residents to embrace math games?

- Math Games - Put a '?' in place of one bingo game on the calendar. Don't tell anyone what it means. When the residents come to the time and place to find out the '?' announce The Chocolate Game. After the game have refreshments and discuss how the residents liked the new game. Each month have a '?' on the calendar where you try one new game. Slowly add one math game three times a week.
- **Give reward tickets for playing not winning!** Take away the fear of losing.
- Brain Teasers - A great way to use brain teasers with residents is to post a question on a community bulletin board, in a newsletter or on the bottom of the activity calendar. Announce a prize for the first person who brings the right answer to the next resident council.
- Have a board game night with families for intergeneration fun.
- Use image games with one-on-one residents and as alternative art projects.
- Put a jigsaw puzzle in a common area and let everyone add a piece at their leisure.
- Use large sized Sudoku and crossword puzzles to engage a group over morning coffee.

Image puzzles – bring this to the session



Sample Games

Lucky 13

Materials – Several packs of playing cards

- Process
- 1 - The leader deals 13 cards to each player.
- 2 - The leader calls out a card, e.g. King of Clubs, and players with this card turn the card over. This continues until someone in the group has every card turned over and is the “Lucky 13”.
- 3 - For residents with dementia you can call “club” rather than a specific card and even call “red” or “black” as needed for the group members’ abilities.

LaPirinola

- La Pirinola – This is a traditional Mexican game played with a six sided top that I adapted to play with standard dice and Hershey kisses. Give each player 10 kisses
- How to play: Roll 1 and you put a kiss in the center of the table; Roll 2 place two kisses on the table; roll 3 take one kiss; roll 4 take two kisses; roll 5 do nothing; roll six take all in the center of the table.

Parson Jack

- Materials – Ten sheets of paper numbers one – ten (or a number for each player)
- Process 1- Place one numbered sheet upside down in front of each resident. Each resident looks at their own number before the game starts.
- 2 – Activity leader is “Parson Jack” and Number 1 and sits at the front of the table of residents and calls out a number.
- 3 – The person whose number is called must quickly call out another number. If he mistakenly calls his own number or a number not in the game, he is out. When the person whose number is called answers correctly, that person calls the next number.
- 4 – The game continues until the person who is playing “Parson Jack a number 1” mistakenly calls a wrong number.