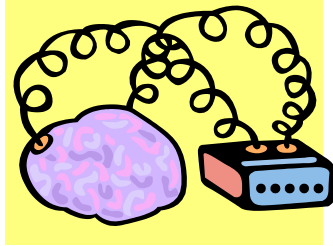


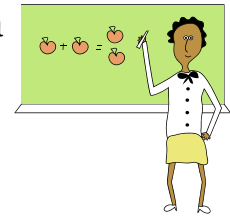
DID YOU KNOW THAT...



- 1) Logical-Mathematical pathways in the brain are stimulated by novel problem-solving activities.
- 2) The brain develops by challenges presented from the outside world. The brain is uniquely shaped by the experiences in the environment of the individual.
- 3) Children grow a more math savvy brain by using math words and doing math.
- 4) Easy classes that do not require planning, thinking, and problem-solving are exercise for brain circuits. Challenge, within your ability to grasp it, think about Vygotsky's Zone of Proximal Development, promotes brain growth and new learning connections. If you want to build a better math brain, then you must experiment with math and logical-mathematical thinking.
- 5) The frontal lobe goes through a growth spurt during adolescence and needs problem-solving events to properly hook-up these centers for adult problem-solving and thinking.
- 6) Almost everyone is born with the capacity for logical-mathematical thought. While many people may not become mathematicians or logisticians, most people can develop the necessary skills for problem-solving.
- 7) Memory loss is not necessarily a normal part of aging. Thinking activities such as Bridge, crossword puzzles, and brain easers help keep brain neurons healthy for thinking.

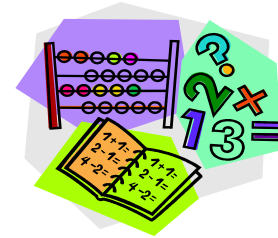


- 8) Open-ended questions that can be answered by more words than “yes or no” help develop the logic and thinking centers of the brain.
- 9) Comfort, when doing an exercise, does not denote learning. Learning occurs with the struggle to know and to make connections. Once connections are forged, exercise and comfort maintain them. **NO ONE LEARNS IN THE COMFORT ZONE!** Frustration, confusion, and some anxiety are all necessary biological states for learning.
- 10) Learning activities must be rotated to maintain interest. The brain becomes habituated or accustomed to objects and experiences. The chemicals present during novelty exercises increase making new learning easier.
- 11) Some kinds of sarcasm stimulate the brain and can be a sign of intelligent thinking.
- 12) Piano playing has been associated with increased mathematical skills such as rotating objects in space
- 13) Learning two similar math operations at the same time contaminates both processes. It is better to learn two different facts than similar facts that can become confused and the brain may not store either well.
- 14) Playing “*What If*” games help develop thinking skills and vocabulary.
- 15) Adrenaline helps to fix events in permanent memory.
- 16) Dehydrated brains do not learn well. The body needs 1 oz. of water for every 3 lbs. of body weight to learn adequately.
- 17) Aromas, such as peppermint and lavender, enhance learning.



18) Brain Gym exercises stimulate both sides of the brain to work and connect making learning easier.

19) Learning is not easy and requires challenge and some moderate discomfort. Practicing what you have learned is easy and “feel good” chemicals flood the brain.



20) Novelty catches the brain’s attention which is why learning activities must be changed to be the most effective.

21) Think carefully about what longevity means. Saying you’ve been in the teaching professions many years only tells us how long you have worked not how well you