

# Tips for Parents from Dr. Judy Willis

## Top 10 List to Improve Children's Memory Or How to be Your Child's Memory Coach

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One of the most exciting areas is brain-based memory research we now have is neuroimaging and brain-mapping studies to view the working brain as it learns. These memory tips are derived from my background as a neurologist. I review the neuroimaging research. I then use my experience as a classroom teacher to make connections between the research and strategies that are NEURO-LOGICAL.

**DESTRESS:** Stress causes the brain intake systems to send information into the Reactive brain (automatic-fight, flight, freeze) and prevents information flow through to the Reflective prefrontal cortex where long-term memory is constructed. Supportive classroom communities lower brain stress and open filters for learning. Use consistent rituals such as a class song, student jobs, a smile and a "good morning" greeting.

**GRAB ATTENTION:** Memorable events make memories. Play music when students enter the class and hang posters "advertising" or giving hints about upcoming lessons. Curiosity increases attention and memory. During lessons, dramatic pauses will capture attention.

**COLOR:** Have students use colored pens to match the color of your whiteboard markers to emphasize the important information. Use green, orange, and red in order of importance - like a traffic light.

**NOVELTY:** If students experience novelty from demonstrations, video clips, anecdotes, or even the enthusiasm in your voice their attentive filters focus on the information.

**PERSONAL MEANING:** Students must care enough about new information or consider it personally important, for it to go through the brain filters and be stored as memory. Use information from Interest Surveys to connect students to the material (use their names and names of their pets or favorite sport when giving math problems).

**RELATIONAL MEMORIES:** The brain only retains working (short-term memory) for a minute unless it connects with prior knowledge. Activate their prior knowledge by having students make predictions and KWL charts.

**PATTERNING:** The brain is a pattern-seeking organ. When students recognize relationships between new and prior knowledge their brains can link the new information with a category of existing knowledge for long-term storage. Graphic organizers and making analogies builds patterns.

**MENTAL MANIPULATION FOR LONG-TERM MEMORY:** Once the information gets to the prefrontal cortex students must do something with it to build permanent memories. Students can write summaries of new information in their own words. To make these even more personally meaningful the summaries can be in forms that suit their learning style preferences including graphic organizers,

sketches, and diagrams.

**PRACTICE MAKES PERMANENT:** Review material using multiple sensory lessons so different neural networks store the knowledge in multiple brain regions. Their brains will build multiple pathways leading to the stored memory, which makes retrieval more efficient. When a memory has been recalled often, their repeated activation strengthens its neuronal circuits - like exercising a muscle.

**SYN-NAPS:** Neurotransmitters, brain transport proteins, needed for memory construction and attention are depleted after as little as ten minutes of doing the same activity. Syn-naps are brain-breaks where you change the learning activity to let the brain chemicals replenish.

The Syn-naps can be stretching, singing, or acting out vocabulary words. After just a few minutes, their refreshed brains will be ready for new memory storage.

Read more information like this that is organized so you can find the best strategies to engage your children through their learning strengths, subject topic, and grade level along with suggestions for the most common challenges in all subjects, from fractions to writing papers, in Dr.

Willis' book for parents,

***How Your Child Learns Best: Brain-Friendly Strategies You Can Use to Ignite Your Child's Learning and Increase School Success***

published by Sourcebooks 2008. Available on [amazon.com](http://amazon.com) and [barnesandnoble.com](http://barnesandnoble.com)

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Dr. Judy Willis is a neurologist and credentialed teacher, with a Masters of Education, who teaches at Santa Barbara Middle School. Dr. Willis combined her neuroscience knowledge and years of classroom experience to become an authority in the field of learning-centered brain research. She has written five books on the subject and gives national and international presentations. Her most recent book for parents *How Your Child Learns Best: Brain-Friendly Strategies You Can Use to Ignite Your Child's Learning and Increase School Success*, was published by Sourcebooks in 2008. This winter Great Potentials Press will publish *Inspiring Middle School Minds: Gifted, Creative, Challenging*, for parents and teachers of middle school students. You can find more articles and topics of interest when you visit Dr. Willis' Website at [www.RADTeach.com](http://www.RADTeach.com).