



Center for School Success

Learning Tip

A "hands-on" approach to learning can be beneficial for many students. Parents of younger children can foster this approach by encouraging their children to explore concepts through free play (i.e., mixing colors, building blocks).

Older students (K-12) also benefit from active learning experiences such as field trips, games, simulations and the arts. For this age group it is important to guide them to think *while* experiencing the activity.

Explicitly tie activities to a specific theme or concept. Include discussion so that the activity is both "hands-on" and "minds-on". The more connections a student makes between new and past learning, the more meaningful new information will be and the more deeply it will be stored in memory.



Brain Fact

Memories are *not* stored as set facts or experiences in one place in the brain, but rather in pieces in neurons (electrically charged cells) that are distributed throughout the brain. When a person wants to remember something, the neurons carrying key pieces of information about that item, fact or experience are activated simultaneously, bringing together all the pieces of a person's recollections.

Strategies That Work

Students who are effective at making rich and relevant connections are able to link new information with prior knowledge which enhances memory consolidation and retrieval.

- Provide time for students to elaborate on new information, by linking it to prior knowledge. For example, use concept maps that allow students to illustrate similarities and differences between the features of new information and what they already know about it. Creating concept maps may help students process and relate ideas in reading, math, science, etc.
- Encourage self-testing techniques. For example, have students stop and ask questions about information they have just read, coming up with questions they think might be on a quiz or test, etc.
- Incorporate students' areas of interest and affinities into classroom activities. They can become "experts" in a field and share that knowledge with the class. Challenge them to find ways to actively involve other students in an affinity related activity.
- Promote collaboration, pairing one student who is detail-oriented with another who tends to think "big picture". Encourage students to talk to each other about the ways in which each thinks through tasks, etc.

Learning Resources

Here are some resources we found that might give you more strategies to help your student.

Articles

- Why Students Don't Like School. Daniel Willingham (2009). *American Educator*:
http://centerforschoolsuccess.org/pdf/Why_Don't_Students_Like_Schools.pdf
- Working Memory in the Classroom. Tracy Packiam Alloway,. (2006). *Educational Research and Reviews*, Vol. 1:
http://centerforschoolsuccess.org/pdf/Alloway2006_WorkingMemory.pdf
- An Interview on Memory with Nobel Prize Winning Scientist, Eric Kandel:
<http://www.scientificamerican.com/article.cfm?id=speaking-of-memory>

Websites

The Brain From Top to Bottom: http://thebrain.mcgill.ca/flash/d/d_02/d_02_cr/d_02_cr_vis/d_02_cr_vis.html
An interactive website on the brain and human behavior. This site provides a range of features, including the ability to change the level of organization and level of explanation.

The Secret Life of the Brain, 3-D Anatomy: <http://www.pbs.org/wnet/brain/3d/>
As part of the PBS series this website provides a wide range of options for learning about the brain. Start here for a 3-D tour of the brain.

All Kinds of Minds Institute: <http://www.allkindsofminds.org>
The institute's mission is to help students who struggle with learning measurably improve their success in school and life by providing programs that integrate educational, scientific, and clinical expertise. The website is designed to give parents, caregivers, and educators a better understanding of: learning processes, insights into learning difficulties, strategies for responding to difficulties and resources for learning more.

Education.com: <http://www.education.com>
This site provides parents of school-aged children with free access to information and resources. Education.com is a one-stop source of information for all parents' educational, developmental, and parenting questions.

Great Schools: <http://www.greatschools.net>
Great Schools empowers its parent community with advice about education topics such as school choice, moving with kids, preparing for college, learning difficulties, ADHD and tutoring. Great Schools is an independent, non-profit organization that empowers and inspires parents to participate in their child's development and educational success.



About the Center for School Success (CSS)

CSS is a non-profit organization located in West Lebanon, NH. CSS services (learning assessments, professional development and community outreach) help teachers, parents, and students understand and manage specific breakdowns in learning, by linking *how* a student learns best with a plan for success.

To learn more about CSS: visit: www.centerforschoolsuccess.org or call (603) 298-6700