

## **Using the Principles of Brain-Based Learning in the Classroom How to Help a Child Learn**

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Knowing how the brain works best allows educators to create an environment that gives the student a higher probability of success in learning. Using the following brain-based learning principles can improve your students' performance in class.

Students have different learning styles.

- 50% are visual learners and prefer pictures, charts, and written text over lectures.
  - 30% are kinesthetic learners and need more tactile (hands-on) and movement-based activities.
  - 20% are auditory learners and do best when they talk about what they are learning.
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- The brain performs better in a positive emotional state. Students must feel physically and emotionally safe before their brains are ready to learn. Teachers can create a positive environment by encouraging and praising their students' efforts.
  - The brain learns new information in chunks. Brain research states that children between the ages of 5 and 13 learn best when given chunks of 2 to 4 pieces of information. Children ages 14 and older can learn up to 7 chunks at a time. Teachers should plan for these limits and teach material in small chunks.
  - The brain also works on a time schedule. Children ages 5 to 13 learn best in 5 -10 minute increments. Children 14 and older learn in increments up to 10 – 20 minutes. Sometimes, teachers may extend time limits through positive reinforcement.
  - Children learn best when teachers teach new material first and review previously learned material at the end of instruction.
  - It is best for teachers to teach in short units (1 to 2 segments at a time) and then provide a student led activity time. Students need time to practice the skills they are learning.

- Students need a moment to “rest their brain” from a task. Allowing off-task time between lesson segments often increases a student’s focus. For example, allow students to take time to stand up and stretch, provide a 2-minute talk break, etc. By providing these moments, the brain will be more ready to stay on task and store information.
- Allow students to drink water during learning time. Research shows that dehydration causes higher salt levels in the blood which in turn raises blood pressure and stress. Dehydration also causes a loss in attentiveness and lethargy. Ideally, students should drink 6 to 8 glasses of water a day to be properly hydrated.
- Take advantage of students’ high energy time. There is a high-low energy level cycle that occurs during the school day. For example, most students have lower energy in the morning (especially during adolescence) and higher energy levels after lunch. A higher energy level correlates to an increased level of attention. Teachers should take advantage of the times during the day when the students’ energy levels are higher by teaching the most important material during these times.
- Provide adequate personal space for the student. More personal space reduces stress for a learner.
- Provide time at the end of a lesson to think about and discuss the topic. Understanding may not take place immediately, it may occur later. Processing time and reflection are vital to the learning environment.

