Mustang Message
Understanding the Adolescent Brain

Part of our work at Meadowbrook Middle School is addressing the needs of the whole child and developing their mindset to become successful learners. To accomplish this, we have turned to recent the findings in the burgeoning field of neuroscience. Neuroscientists have made an abundance of new discoveries about brain development, in particular, as it relates to adolescents. Meadowbrook staff was introduced to these new findings to better understand the needs of our students and contribute to their academic and developmental success. This month's Mustang message is an introduction to the new findings about the development of the adolescent brain.

Psychologists, Peg Dawson and Ed Guare, have worked with students and parents in the school setting to develop executive skills, the skills needed to complete any task. They applied the research which informs us about the part of the brain, the prefrontal cortex. This is the most front part of the brain, situated behind the forehead and is responsible for the development of executive skills. These skills include organization, sustained attention, task initiation, task completion, impulsivity, managing emotion, flexibility, time management, self-evaluation and time management. This is an exhaustive set of skills which we develop from birth through our mid-twenties. Using that information to inform us, we need to intentionally coach these skills with our middle school students. Another key learning about brain development is the fact that during early adolescence the brain goes through a pruning process. Basically, what adolescents practice during this time is strengthened and what is not practiced is pruned away. This is an opportune time to practice the executive skills.

Dan Siegel, another leader in the field of neuropsychology, is a clinical professor of psychiatry at the UCLA School of Medicine, co-director of the UCLA Mindful Awareness Research Center and executive director of the Mindsight Institute. In his book, Brainstorm, Daniel Siegel, busts a number of commonly held myths about adolescence. According to Siegel, during adolescence we learn important skills, such as how to leave home and enter the larger world, how to connect deeply with others, and how to safely experiment and take risks, thereby creating strategies for dealing with the world's increasingly complex problems. Dr. Siegel explains these changes by applying the science of brain development. The remodeling of the brain includes a shift in attachment from parents to peers. As the prefrontal cortex develops, adolescents begin to question the adults in their lives. At Meadowbrook we are sharing this information with parents at our Parent Night – Understanding the Adolescent Brain. In an effort to emphasize and develop self regulation, we are sharing this information with students in student groups. In addition we are developing a pilot program and designing lessons to be taught through 7th grade science class.