

**2019 VAST PROFESSIONAL DEVELOPMENT INSTITUTE
“STEM Starts with Science”**

**FRIDAY MORNING GENERAL SESSION SPEAKER
(Sponsored by School Specialty)**



Dr. Kenneth Wesson, Ph.D.
Educational Consultant: Neuroscience

“STEM: If Students Don’t Learn the Way We Teach, Then Why Not Teach the Way They Learn?”

We often hear educators proclaim, “I teach science” (or other content areas). However, more correctly stated, we do not teach subjects, we teach *students*, who arrive at our classroom doors with an ever-increasing range of personal backgrounds. Futurist Alvin Toffler was fond of saying that we must “learn, unlearn and re-learn” to survive, but instructional effectiveness in the 21st century classroom is also governed by this survival strategy. We frequently have a binary choice: Teach students *how we were taught* to teach or teach our students the way *they learn*. While we cannot choose the students we want, but we can choose the *methods* by which we actively engage the students we get every year.

Bio:

Dr. Kenneth Wesson is a former faculty member and administrator in higher education. He delivers keynote addresses on the neuroscience of learning for educational organizations and institutions throughout the United States and overseas. His audiences range from early childhood specialists to college and university-level educators. His international audiences have included educators and administrative officers from six of the world’s seven continents. His research is frequently published and referenced in Parents Magazine, HealthNet, and the journal Brain World. He is an active member of Scientists without Borders and serves on the advisory boards for the Korean Institute of Brain Science, Kids at Science, and the International Association of STEM Leaders. He can be seen on PBS specials on human learning and the teenage brain. In 2017, Wesson was selected to receive the Marquis Who’s Who Lifetime Achievement Award.

He has been a keynote speaker/featured speaker for such diverse organizations as: the Summer Institute for the National Academy of Sciences; the (national) STEM Forum and Expo; National Brain Awareness Week; the American Society for Biochemistry and Molecular Biology; the National Symposium for Scientists and Engineers; the American Society for Microbiology; the Science Education Administrators and Policymakers Institute; the Distinguished Scientist Lecture Series; the Association of College and University Biologists; the International Brain Education Association; numerous state STEM conferences; and the United Nations' Department of Public Information and NGOs. This year, he will address several school boards associations and administrators' leadership academies. His "Brain-STEM" presentations underscore the learner benefits of merging the latest research from cognitive science with the goals of STEM education.

"Each year, new findings in cognitive psychology and neuroscience will be infused into teacher preparation, curriculum, instruction, student assessment, and the classroom environment. The works of Howard Gardner (Multiple Intelligences), Daniel Goleman (Emotional Intelligence), Kenneth Wesson (Brain-considerate Learning), and Mel Levine (Schools Attuned) have been influential in reshaping the school classroom" of the future."

Forecasting Independent Education to 2025
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Wesson's latest articles include: Saber Toothed Tigers and Stressed-Out Students: An examination of the neuroscience behind safe secure learning environments; "STEAMING and ST²REAMING Your STEM Programme"; "STEM Branches Out: Preparing for the jobs of the future"; Evidence-guided Strategies to Manage Safety Risks in Schools "Brain-STEM: Using Interdisciplinarity to Improve Our Minds and Our Schools"; "From STEM to ST²REAM: Reassembling our Disaggregated Curriculum"; Art and the Creative Brain; "The Impact of the Next Generation Science Standards"; "Reverse Direction Decoding: Revolutionizing How We Teach Reading"; "Minds, Models and Maps: Visualizing Science"; "Has Standardized Testing Run Its Course?"; "30 Ways to Improve Your Memory"; "Brain-Sight: Can Touch Allow Us to 'See' Better Than Sight?"; "Neuroplasticity: The Effects of Experience on the Brain"; "The Magic of Human Language Development"; "Drawing and the Brain"; "Learning and Memory: How Do We Remember and Why Do We Often Forget?"; "Emotions and Education: How Children Feel Affects How They Learn"; NSTA Reports: "Brain-considerate Learning"; "Where is God in the Brain?"; "Memory and the Brain" and "Early Brain Development and Learning."