



**National Center for
Technological Literacy®**

Museum of Science, Boston

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Dr. Yvonne Spicer is a national and international speaker and advocate for pre-college science, technology, engineering, and math (STEM) education. Spicer was honored in 2009 by *Mass High Tech: The Journal of New England Technology* as one of 10 "Women to Watch." Concerned by how many children in the U.S. "are shut out of technology and engineering," Spicer makes a compelling case for closing the underrepresented minority gap in engineering and school leadership.

With expertise in technology and engineering education standards development, assessment, and strategic school leadership, Spicer served on the technology and engineering steering committee for the frontrunner of the first national assessment for technology and engineering in the 2014 National Assessment of Educational Progress (NAEP). Most recently, she served on the technology and engineering design team for the National Research Council (NRC) "Next Generation": Framework for Science Education which was approved July 19, 2011.

In January 2010, Spicer was appointed to the Massachusetts Governor's STEM Advisory Council as the co-chair of the council's teacher development committee. She was instrumental in establishing the 2001 Massachusetts technology/engineering curriculum framework with Ioannis (Yannis) Miaoulis, president and director, Museum of Science. She is also an advisor to the National Governors Association.

In addition, Spicer advocates for the Museum's K-12 curricula, Engineering is Elementary®, Building Math, and Engineering the Future®, and she directs the Gateway Project, which originated in Massachusetts and is being replicated across the U.S. as a model to build leadership capacity for technological literacy. Designed to guide systemic change, the Gateway Project helps school districts develop a strategic plan of action to implement K-12 technology and engineering programs. The Gateway community totals over 400 educational leaders representing 80 urban, suburban, and rural school districts.

Earning her doctorate at the University of Massachusetts-Boston in 2004, she focused her dissertation on how nine African American female public school principals transformed their schools and thrived as educational leaders. Spicer is the former director of career & technical education in Newton, Mass., and served as the statewide technology/engineering coordinator at the Mass. Department of Elementary and Secondary Education. She earned B.S. and M.S. degrees in industrial arts & technology from the State University of New York-Oswego. A Brooklyn, New York, native, she is committed to improving opportunities for females and students of color in science, technology, engineering, and mathematics (STEM) fields.