



**Tonya M. Matthews, Ph.D.**  
**Biographical Sketch**

A thought-leader in museum engagement, free-choice learning, and hands-on STEM (science, technology, engineering and math) education, Dr. Tonya M. Matthews serves as the Michigan Science Center's president and chief executive officer. Her

diverse background includes academic and professional work as a Ph.D. scientist, educator, community volunteer, and award-winning writer and poet.

Matthews is the first permanent leader of the Michigan Science Center and has grown its impact to annually serving 300,000 children and families across 42 counties, while continuing to focus on the schools and communities of Detroit. Powered by her passionate leadership for diversity in STEM, the science center launched The STEMista Project, an initiative supporting the interest of middle school girls in STEM. Additionally, Matthews has positioned the science center as the hub of critical conversations in STEM. The science center served as host for the statewide Manufacturing Day and regional Construction Expo, as well as for the release of the nation's first-ever report card on Technology and Engineering Literacy through the National Assessment of Educational Progress.

Previously, Matthews served as the Vice President of Museums for Cincinnati Museum Center, directing the education, research and community engagement footprints of a 3-museum, 3-research center institution. During her tenure, she was instrumental in positioning the museum as a thought leader in STEM and created the museum's signature programs in early childhood science training and girl-focused STEM engagement. Prior to her work in Cincinnati, Matthews worked as a biomedical engineer for the Food and Drug Administration, as well as project manager for the bioscience wing of the Maryland Science Center. Additionally, she has taught as an adjunct and visiting faculty member in universities across the country.

Matthews continues to be a personal and professional advocate for "whole brain" activation through her writing and public speaking. She has performed poetry and storytelling with the Cincinnati Ballet Company, the Cincinnati Symphony Orchestra, and, most recently, composed an original piece for the premier of Symphony in D with the Detroit Symphony Orchestra.

Matthews completed her doctoral work at Johns Hopkins University in biomedical engineering and her baccalaureate studies at Duke University in biomedical and electrical engineering. Her undergraduate degree also includes a certificate in African/African-American Studies.

In 2014, Matthews was appointed by the Secretary of Education to serve on the National Assessment Governing Board to help guide The Nation's Report Card, and she was recently appointed to the National Academy of Sciences Board on Science Education. She also serves on the boards of Detroit Cristo Rey High School, TechTown, and Detroit Public Television. She has been honored as a Michigan Chronicle Woman of Achievement, a MichBusiness Distinguished Service Honoree, and as one of Crain's 100 Most Influential Women in Michigan. In December 2016, Matthews was recognized with an honorary doctorate from Central Michigan University. Matthews is a member of Delta Sigma Theta Sorority, Incorporated, The Links, Incorporated, and the National Society of Black Engineers.