

The Academy of Science, Research, and Medicine is a STEM-certified magnet program in the Paulding County School District. Through a very competitive selection process, the program only accepts 60 students each year from the district's nine middle schools. Housed at Paulding County High School in Dallas, the program offers an accelerated course sequence with two pathways. Students may choose between the Biotechnology Research and Development or Allied Health and Medicine pathways, with many students completing both upon graduation. The program received STEM certification on April 27, 2017 and has even been nationally recognized for innovative approaches to teaching.

In the Biotechnology pathway, students are exposed to a rigorous content with an emphasis on biotech research and lab-based skills. The Atlanta area is rapidly becoming the next major biotech hub, thus students are acquiring skills that are currently in high demand. Upon completion of the pathway, students enter into a series advanced research courses, in which students are carrying out independent biotechnology research. With topics ranging from biofuels to pharmacogenomics to nanotechnology, students are truly conducting cutting-edge research. Each year, students present their research findings at the Georgia Science and Engineering Fair and also compete in the prestigious BioGENEius Challenge. Students graduating from this pathway have already been accepted into undergraduate biotech research positions at the Georgia Institute of Technology, University of Pennsylvania, and the University of Georgia.



The Allied Health pathway offers students the opportunity to become effective and efficient multi-skilled healthcare providers as they develop a working knowledge of various allied health opportunities. Students focusing on a career path in the healthcare field may apply classroom/lab knowledge and skills in the clinical setting as they participate in direct or simulated client care. The curriculum allows instructors to provide options for classroom/student growth opportunities in area(s) of interest to the student. These options may be determined by community need, available resources, and/or student interest, etc. This pathway is unique in that it will also work to promote education and prevention for multiple areas as it relates to healthcare needs. These areas include, but are not limited to, community events and health fairs, onsite education and campaigns, safety teams, community care, job shadowing, and offsite clinical visits.



In both pathways, STEM content is integrated throughout the curriculum and taught using project-based learning. Students are encouraged to use the engineering design process in conjunction with a claims, evidence, and

reasoning approach. Students in the Academy are exposed to extensive STEM collaborative partnerships. For example, students are currently working with The Nature Conservancy (TNC), Georgia Department of Natural Resources, Cobb County-Marietta Water Authority, Kennesaw State University (KSU) and Cornell University on several long-term projects. For example, students are currently working with KSU and TNC to use environmental DNA to detect threatened and extirpated species in a local watershed. These advanced biotechnological procedures could potentially revolutionize how species biodiversity is quantified and analyzed in nature. Again, these partnerships and authentic opportunities help create a unique STEM culture in the Academy.



Advanced academics are a focus in the program. In addition to the rigor of the AP science and mathematics courses, students can take a total of 12 Advanced Placement classes offered in the program, which has been recognized by College Board earning four of six AP accolades, including STEM access and STEM achievement. Lastly, students in the program are very involved in numerous STEM outreach initiatives in the community. Students in the Academy travel throughout the district to attend other schools' science family nights, attend STEM conferences, and host events to engage their community in STEM activities. Please visit the following websites for more information www.PCHSMagnet.com and www.PedersenScience.com or contact Dr. Robin Davis (rmdavis@paulding.k12.ga.us).