



The Herald

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STEM at Millennium Charter Academy

STEM education, or Science, Technology, Engineering, and Math education, is mentioned almost daily in some facet of the news. Many schools are trying to ramp up their studies in each of these areas to help students be more globally competitive as they reach college age, and they do well by doing so. Some may believe that a classical liberal arts education, such as offered at MCA, and a STEM education may be mutually exclusive, but they are indeed not. At MCA, our focus is of a classical nature, where we strive to help our students become virtuous citizens as we teach them language, arts, and the sciences. Therefore, a proper STEM education fits well into this classical model. Below is an outline of the STEM initiatives already in place at MCA. STEM activities in the near future include obtaining more equipment for science labs and classes in all grades and getting involved as a NASA Explorer School.

Science

- Inquiry based instructional methods beginning in kindergarten
- Individual science fair projects required, beginning in 4th
- Participation in NC Science and Engineering Fair
- Participation in NC Student Academy of Science Research Paper Competition
- Participation in NC Science Olympiad



Mrs Edwards class checks out the %body buffet,+ a fun, experiential way to wrap up their Core Knowledge science unit on the body.

Technology

- 1:1 laptop program (cloud based) for all middle school students
- iPads and iPods for Challenge Center use
- Various subscription programs (for example: Razz Kids, Discovery Education) and technology curriculum
- SMART boards in every classroom
- 4 SMART response systems for shared use
- 4 SMART slates for teacher use
- All teachers are equipped with laptops and projectors
- Graphic Design, Advanced Graphic Design electives in middle school
- Digital Photography elective in middle school



Ezra Vernon, Nathaniel Blanc, Elijah Bowman and Ian Blick complete assignments using their Chromebooks.

Engineering

- First Lego League Robotics elective and competition participation
- %low Stuff Works+elective

Mathematics

- Everyday Math curriculum
- Advanced math classes (pre-algebra, algebra, geometry)
- MATHCOUNTS club and competition participant



The MCA robotics team gears up for the robot missions part of the FLL tournament at Weaver Academy in Greensboro, NC.

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