

## **Specialized Curriculum**

Rockdale Magnet School for Science and Technology is best characterized by its unique courses, research opportunities, and commitment to academic excellence. Mathematics and technology permeate the curriculum which offers courses that are not available at other schools in Rockdale County and most traditional high schools in Georgia. In fact, the curriculum goes well beyond that found at other schools by offering post-AP classes, internships, independent study, community service, and other structured learning experiences. All RMSST courses use college-level textbooks and extend the curriculum beyond the State course standards. Due to small class sizes, students receive individualized attention from phenomenal teachers who are dedicated to helping them succeed. Students are exposed to a variety of instructional methods and activities as well as rigorous assignments that require creative thinking and problem solving.

Specialized electives are designed to allow students to deeply investigate topics of interest. Biological electives such as Anatomy and Physiology, Microbiology, and Organic Chemistry are provided for students who are considering of a career in the medical field. Other courses such as Digital Media Technology, Computer Programming, Engineering Concepts, and Engineering Applications are for those who enjoy applying their knowledge of science, technology, and mathematics to real-world problems.

Research is part of our commitment to inquiry-driven, hands-on learning. Students take Research I in 9<sup>th</sup> grade and work with teachers who introduce them to new and exciting STEM fields, research methodology, and techniques to be used with technical equipment. Students select a field of interest which is studied further during the development of their first independent research project. In Research II, students complete this project with an emphasis on data analysis and presentation skills. Teachers work as facilitators to assist students along with mentors from universities, industry, government, and STEM organizations. A second project is completed in Research III in 11<sup>th</sup> grade. A professional development component is also part of this course which provides students with experiences related to academic and professional resume building, interview skills, and career and college planning. In 12<sup>th</sup> grade, students must take Research IV which is an independent study course using an online platform. Students complete their third scientific research project with an emphasis on publishing work and participation in national scientific competitions.

Seniors have the opportunity to participate in the internship program which assigns them to a workplace in the career field of their choice. The invaluable hands-on training provided in a biological, engineering, or technology-related position allows students to experience and explore the career first hand.