

BLAST Abstract

Richland County School District One's vision is for all magnet students to have the opportunity to achieve grade-level proficiency and meet or exceed college and career readiness standards through expanded enrollment hallmarked by diverse social, economic, ethnic, and racial backgrounds. *BLAST: Building Lasting Aerospace and STEM Trajectories* will address four goals: (1) Reduce Minority Group Isolation: implementing recruitment and selection approaches that promote socio-economic integration and reduce minority group isolation; (2) Academic Success: improving academic achievement through an educationally challenging and diverse learning environment that empowers all students to reach their potential; (3) Magnet Themes: increasing student STEM aspirations and engagement in school by implementing evidence-based magnet programs in Aerospace and National Defense delivered through innovative instructional approaches and supports that amalgamate students from different backgrounds; and (4) Professional Development: ensuring students have access to effective educators through high-quality professional learning that supports improvements in practice and sustainable integration of magnet themes. *BLAST* will implement evidenced-based magnet programs with the introduction of a new school-within-a-school Aerospace magnet program at Watkins-Nance Elementary (120 students), a revised school-within-a-school Aerospace magnet program at W. A. Perry Middle (60 students) and a revised school-within-a-school National Defense theme with four academies (Pre-Engineering, Bio-medical, Cybersecurity, and Aerospace) at Columbia High (480 students). Our elementary and middle Aerospace magnets have been designed with a Project Lead the Way trajectory, providing activity-, project-, and problem-based learning that features real world applications. Students participating in National Defense will be provided a grade 9-12 pipeline including dual enrollment opportunities, and hands-on learning through internships and externships with partners.