

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

Lift Off - Secondary Space Education (2) (2B)

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NASA GIRLS AND BOYS: RETAINING THE FASCINATION OF STEM AMONG MIDDLE SCHOOL STUDENTS

Abstract

Countless studies have shown girls in the US start to lose interest in math and science during their middle school years. This is the age of complicated pubescence, working through gender expectations, and leaving their childhood years behind. Studies have also found girls in this age group are often conflicted with their science, technology, engineering, and math (STEM) ability when compared to boys, often concluding they cannot be both feminine and good at science and math. The NASA GIRLS and BOYS programs are one effort of many to maintain interest in STEM for middle school students. They are an opportunity for middle school students across the United States to be matched with a NASA employee for a 5-week program focusing on STEM subjects. The NASA employee could be an engineer, scientist, accountant, astronaut, program manager, or other position that contributes to the NASA mission. Once a week, the NASA mentor meets virtually with their assigned student and mentors them through specific concepts in STEM using hands-on materials available in their homes, interactive programs available on NASA's website, and custom-made worksheets. The NASA GIRLS program was piloted in the summer of 2012 as a test outreach program to determine the implementation strategies, management requirements, popularity among the general public, and level of intellectual benefit to the NASA mentors and middle school students. After receiving an overwhelming positive response, the program was expanded to include NASA BOYS program in summer of 2013. The continued success of the program has allowed for the NASA GIRLS and BOYS summer programs to become an annual summer event and for recognition at the national level in the recently signed presidential executive order called INSPIRE Women Act.