



In January 2010, National Aeronautics and Space Administration (NASA) Administrator Charles F. Bolden announced the Summer of Innovation (SOI) as NASA's response to a national need for improvements in science, technology, engineering, and mathematics (STEM) education. This new NASA program, which is part of President Obama's Educate to Innovate, Summer of Innovation project, was designed to improve our country's level of STEM skills and enhance the STEM engagement of American students in order to keep that level high for coming generations.

Huntsville Space Professionals (HSP) are joining the effort. We are seeking to bring the SOI program to both our area and sister-school collaborators. While the Summer of Innovation was piloted in 2010, NASA has refined its approach for the 2011 Summer of Innovation to facilitate the alignment of summer and extended learning programming with the formal education community to better support coordinated and sustained student engagement in STEM education. Each year building on the next, the STEM SOI Program will be a four-year effort involving middle-school students in grades 4-9.

**NASA's SOI Objectives Include:**

1. Build the capacity of community- and school-based organizations to engage underserved and underrepresented students in high-quality STEM content in summer and extended learning experiences tailored to meet local needs.
2. Support the infusion of NASA themes and resources in summer and extended learning.
3. Facilitate the alignment of summer and extended learning programming with the formal education community to support coordinated and sustained engagement in STEM content.

Partnerships with local organizations enabled the infusion of NASA content to expand and enhance the 2010 pilot SOI program. HSP is inviting you to join us as we work together to expand on those efforts for our own community and thus continue the tradition of success in this nation. There will be no charge to participants.

The HSP STEM Summer of Innovation will leverage NASA funding and content in partnership with proven community and school-based summer and other organizations to help strengthen STEM achievement in our youth. We are looking for schools and other community groups that are interested in participating in the program with us. As a 501(c)3 non-profit, HSP counts nearly 1000 aerospace professionals in its membership. We are seeking to join hands in collaborative effort to share our excitement in science, technology, engineering, and mathematics and thus provide an avenue to greater understanding, excitement, interest, and ultimately a boost to the achievement of youth, minority, female, lower socio-economic, and other disadvantaged students who do not traditionally excel, or even consider a career path in STEM subject areas.

HSP's SOI program will be based on the SOI curriculum materials provided by the NASA SOI Office; but that is only a starting point. Drawing from the expertise of our membership, there will be fun focused STEM camp type activities as well a series of training modules and lesson plans for partnering organizations. Cross curriculum activities will meet a range of standards to involve teachers from divergent subject areas who may trend away from STEM activities in their own classrooms.



Student meets with astronaut Winston Scott.  
Image Credit: NASA.

There will be field trips and a contingent of rocket scientists and engineers to help teachers develop confidence and competence to foster greater success in their students' advancement in STEM. Online activities, research, experimentation, multi-media, handouts, and other enrichment resources will all be available at no cost to the participants. There will be an optional competitive element, space and science camp type activities, and a finale event.

As the summer comes to an end, the SOI program will continue into the school year to support follow-on and extended learning efforts designed to keep students involved in NASA-themed STEM activities during the academic year. The curriculum is for 40 hours of STEM instructional activity in the summer with an additional 25 hours during the following school year. While President Obama's Educate to Innovate, STEM Summer of Innovation program is a

national endeavor, programs will be customized according to area need. HSP will be working closely with NASA to ensure the success of all our efforts. Reports will be made, progress tracked and evaluated, with lessons learned incorporated on an ongoing basis throughout the program.

Academic support and teacher training will be provided to facilitate increasing competency and confidence in the relevant STEM subject area.

It will take a national effort to reach the level of STEM literacy that future generations of our nation will need to keep our nation competitive on an international level.

HSP is ready to do our part, but no one can do it alone. Strategic liaisons are being sought, with schools, boards of education, organizations, community groups, museums, science centers, corporate, and other interested community groups. We would like to invite you to join in for our own HSP STEM Summer of Innovation.



Virginia Aerospace Science and Technology Scholars built their own robots.  
Image Credit: NASA/Sean Smith.

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HSP and STEM

<http://www.huntsvillespaceprofessionals.com/space-education/>

NASA Summer of Innovation Website

<http://www.nasa.gov/offices/education/programs/national/summer/home/index.html>

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*"Preserving and promoting Huntsville's talented space professionals"*

Huntsville Space Professionals (HSP)

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