IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Interactive Presentations - IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (IP)

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NASA GODDARD SPACE FLIGHT CENTER'S OPTIMUS PRIME SPINOFF PROMOTION AND RESEARCH CHALLENGE (OPSPARC) – WILL YOU BE THE SPARK?

Abstract

For nearly a decade, NASA Goddard has ignited innovation through the OPTIMUS PRIME Spinoff Promotion and Research Challenge (OPSPARC) by offering students diverse opportunities to engage in STEAM and entrepreneur-focused activities. This presentation will focus on strategies to engage the public and how to get involved in the challenge. Students in grades 3-12 work alone or in groups of up to four students to identify and create their own spinoffs using NASA technology. Hundreds of students have taken part in this challenge so far and have demonstrated ingenuity, entrepreneurship and have gone on to "Be the Spark" of innovation! What is a spinoff? Like our friend OPTIMUS PRIME from the popular Transformers series, a spinoff starts as one thing (a truck, in his case) and changes into something else (an AUTOBOT)! Many NASA technologies have done the same thing by serving a space-related function and turning into something else through commercialization. A few well-known examples of NASA spinoffs include Invisible Braces, Memory Foam and the rumble strips on the side of the road. All these commercial items have NASA technology infused in them. As part of OPSPARC, we ask students to replicate this process by choosing a NASA technology and coming up with an original, creative new way to commercialize it. Students use a combination of text, images and videos to create a digital multimedia poster that displays their research and ideas. The grade categories for the multimedia poster component of OPSPARC are students in grades 3-6 (elementary school), 7-8 (middle school) and 9-12 (high school). Twenty middle school and high school submissions from the digital multimedia poster component are selected to move forward to the next phase of OPSPARC called InWorld Innovation. Also known as Mission 3, this phase brings in college engineering and business school mentors who work with selected teams to improve designs, create 3-D virtual models of the designs and develop marketing plans to showcase their work within the virtual world. Students are encouraged to think like entrepreneurs and identify potential customers for their product. This challenge is currently open to students who are residents of the US, Canada or the UK. Let's see who will "BE THE SPARK" of our next innovation! Will it be you?