



Challenge Description

“Solving the Challenges of Space in the RealWorld and InWorld”

The RealWorld-InWorld NASA Engineering Design Challenge is a unique education initiative that targets students in grades 9-12. It encourages them to explore and to build skills essential for successful careers in Science, Technology, Engineering, and Math (STEM) through two phases of project-based learning and team competition.

Phase 1.RealWorld: Teams of high-school-aged students and teachers/coaches work collaboratively as engineers and scientists to brainstorm, design, build, test, and share ideas to solve one of two real-world challenges related to the James Webb Space Telescope.

Images submitted of final project solutions will be featured on the RealWorld-InWorld Student Gallery and all teams (participants) will receive recognition for their work.

Only teachers/coaches and students who submit their final RealWorld project solutions **by January 15, 2011**, are eligible to move InWorld (Phase 2) to compete for scholarships and technology awards. Moving to InWorld (Phase 2) and access to the virtual world requires selection by college team leaders and is limited to U.S. citizens.

Phase 2.InWorld: After exploring and designing solutions face-to-face in the RealWorld (Phase 1), interested teachers/coaches and teams of 3-5 high-school-aged students register to move InWorld (Phase 2) to continue working in a 3D virtual environment. Participating college students build InWorld teams by selecting from the registered teams and their teachers/coaches. A participating engineering mentor is assigned to each InWorld team. In this new setting, each newly formed team uses 21st Century tools to refine designs and to create 3D models of the Webb telescope. Webb engineers will visit and “chat” InWorld throughout the Challenge.

Explore the resources for this **free** and **flexible** project and learn how it can challenge you and your students while meeting and expanding their educational needs. Register for **free** online: www.nasarealworldinworld.org.

Challenge Partners

RealWorld-InWorld is a joint education initiative of the National Aeronautics and Space Administration (NASA), the National Institute of Aerospace (NIA), USA TODAY Education, and LearnIT-TeachIT. The RealWorld-InWorld NASA Engineering Design Challenge builds on the successful SIGHT/INSIGHT design challenge developed by USA TODAY and NASA and the Virtual Exploration Sustainability Challenge (VESC) developed by NIA and NASA. Both educational initiatives were based upon NASA themes and content for students in grades 9-12. They enhance students’ skills, proficiency, and interest in problem-solving and careers in Science, Technology, Engineering, and Math (STEM). RealWorld-InWorld registration and resources are available at www.nasarealworldinworld.org.