



## INTRODUCTION

In October 2014, millions of young people across the nation will become scientists for the day during the seventh annual **4-H National Youth Science Day (NYSD)**. NYSD is the premiere national rallying event for 4-H Science year-round programming. It brings together thousands of youth, volunteers and educators from the nation's 109 land-grant colleges and universities to simultaneously complete the National Science Experiment.

The **2014 National Science Experiment, *Rockets to the Rescue***, provides young scientists the opportunity to explore how aerospace engineering can be used to solve real world challenges—such as food distribution in emergency situations—to make a positive impact in our world.

***Rockets to the Rescue*** captures many of the wonders and issues of modern day engineering. It emphasizes aerospace engineering, as it incorporates lessons related to math, science and physics. While it is a fictional scenario, it has real life parallels.

This activity is appropriate for youth in grades 4 and above.

## CONTEXT

When disasters strike, logistics can be a key challenge for emergency responders trying to deliver food aid and supplies to the people who need it most. Severe storms can flood roads, and take out bridges, ports and runways. This can make normal transportation options practically impossible.

## WHY AEROSPACE ENGINEERING?

Professional aerospace engineers frequently encounter design challenges when developing, manufacturing and testing aircraft and aerospace products. They are given goals, requirements and constraints—and must use their creativity and imagination to best solve the problem.

As an aspiring aerospace engineer, your challenge is to come up with an aerospace design idea for solving this problem. This is the premise for the 2014 National Youth Science Day Experiment.



4-H NATIONAL YOUTH SCIENCE DAY

**ROCKETS  
TO  
THE RESCUE**

