

The Rescue

The Problem:

John wants to rescue his best friend, Mike, who has been captured by aliens. John needs to travel a distance of 3 metres in order to reach the spaceship's door.

John calls upon his science expert, William, for advice. John and William stand directly under the spacecraft and discuss the challenge before them.

The Challenge:

Build a rocket that will lift-off and go 3 metres straight up.

The Materials:

- 1 sheet of 8 ½ x 11 " paper
- scotch tape
- film canister
- ½ Alka Seltzer tablet
- Club Soda

The Criteria:

The rocket must:

- Be free standing
- Must be at least 25 cm tall
- Must travel at least 3 metres straight up
- Must be aesthetically pleasing

Work with a partner.

Follow the design process to complete the challenge.

Teacher Information

This design project can be done as a general activity in grades 2-6 to teach the design process, or it can be tied in to specific clusters such as Gr. 5: Properties of and Changes in Substances (focussing on the reaction taking place) or Grade 6: Exploring the Solar System (focussing on rocket design). If tying it to a cluster additional requirements can be added to the presentation or report that ask students to apply their learning. One way this can be done by asking students to use cluster vocabulary in their description of their design and their improvements.