



DESIGN CHALLENGE

Space Lander

Design a lander that can keep two mini marshmallows ("aliens") inside a cup when dropped from a height of five feet. The marshmallows must remain inside the lander after impact. Marshmallows may not be attached to the cup and no bending the straws.

What You'll Need

- Straws
- 1 small paper/plastic cup
- Index cards
- Tape
- 2 mini marshmallows

Quote



Explain the quote listed in your own words, and then describe how it applies to the design challenge.

"Mystery creates wonder and wonder is the basis of man's desire to understand."

-Neil Armstrong



Reflection Questions:

What was the most important aspect of your design and why?

If you could swap one of the materials with something else, what would you replace it with and why?



Redesign Challenge:

Modify your design to use the least amount of materials and still manage to keep the "aliens" inside the lander.



Overall Design Reflection Questions:

- What were some interesting discoveries you made while working on the Design Challenges?
 - About the problems? About yourself?
- What were some of the difficulties of the Design Challenges?
 - What made them difficult?
- What were some learning moments?
 - What made them so?
- How can you use what you have learned in the future?

If you are finding these challenges fun and learning about what you enjoy doing, check out, our Find Your Passion activity, TGR EDU: Explore tgreduexplore.org/curriculum