Lunar Landers Grades 3-5

## **Lunar Lander Visual Instructions**

NASA designed the legs of the Lunar Module to absorb some of the impact when landing on the moon's surface. Create a design that lessens the impact on our poof astronauts. Follow the visual instructions to create your own design.

- 1. Put two poofs in a paper cup. Pick up the cup and drop it on the floor. What do you notice happens? If the poofs were astronauts and the cup was an Apollo Lunar Module, the astronauts would not be in good shape!
- 2. Use the following materials to create a lander that lessens the impact of a drop for your poof astronauts:
  - Index Cards
  - Cardboard
  - Straws
  - Rubber Bands
  - Scissors
  - Tape

A spring and other design elements can lessen the impact of a fall from a high distance. You can make a spring by folding an index card like an accordion or fan.

3. After creating your new design, test it by dropping it on the floor from table height.Do the poof astronauts stay inside the cup? Does your design stay upright or fall to the side? How can you make your design better?

## **Requirements:**

- 1. The cup must be on top of your design
- 2. The top of the cup cannot be covered
- 3. Poofs must stay in the cup when dropped

An example of a lunar lander can be found on the right. Try to create your own design!











