



ES06: Lunar Landing Challenge (Recommended for Grades 3-5)

Please use the following resources to learn about the living on the moon.

Watch this Video: <https://youtu.be/wG7byaLSmFU>

Answer these questions:

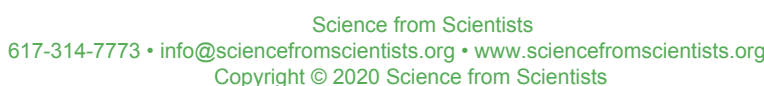
- What is the highest and lowest temperature on the moon?
- Would it be easy to live on the moon? Why or why not?

Activity: Imagine you are one of the first astronauts living at a new base on the moon. You were working in a crater a few hundred miles away. On your way back to base, your transport breaks down and you crash land 60 miles from home! That's going to be a long walk back.



Steps:

1. Rank these items from what you think is most important to least important to take with you. Use what you know about the moon and learned in the video to help you decide.
2. Compare your rankings with rankings given by NASA experts (on the next page - don't peek until after you have ranked your own list!)
3. For each item, subtract the difference between your ranking and the NASA ranking
4. Add up your numbers for your final score and see if you would have survived!



Final Scores:

26-32	Great!	Above average skills. You made it!
33-45	Good	It was a struggle, but you made it back to base.
46-55	Average	At least you're still alive, but you barely survived!
56-70	Poor	Sadly, not everyone made it back to base.
71+	Tragic	Oh dear, your bodies lie lifeless on the surface of the moon!

Astronaut Rankings:

Item	Rank
Two oxygen tanks	1
Water (50 gallons)	2
Moon constellation map	3
Case of food concentrate	4
Solar powered short range two-way radio	5
First aid kit	7
Parachute silk	8
Self-inflating life raft	9
Self-igniting signal flare	10
Nylon rope	6
Magnetic compass	11
Box of matches	12

Make observations & use Claims, Evidence, and Reasoning!

1. **Claim:** Good survival gear on earth is not always the best survival gear on the moon.
 - **Evidence:**
 - **Reasoning:**
2. **Claim:** There's not enough atmosphere on the moon to allow astronauts to breathe without special suits and equipment.
 - **Evidence:**
 - **Reasoning:**