**NASA Exercise: Survival on the Moon**

**Team Building Activity**

**Scenario:**

You are a member of a space team that is stranded on the moon 200 miles from your mother ship. There are 10 items listed below that your team will need to survive and help your team get back to the mother ship. Your task is to rank the items in order of their importance for your team’s survival. It is a very dangerous trip because of the cliffs and lack of oxygen. Also, the moon is extremely hot during the daytime and extremely cold during nighttime.

**Directions:** First, rank the items below by yourself without looking at other students’ answers. Place the number **1** by the most important item, the number **2** by the second most important, and so on. Then, your team of 4 to 5 students will share your answers and rank the items again as a team. Your team will be selected by the adult in charge. Afterwards, you will hear NASA’s answers. Please write these down as you hear them.

**Your Ranking Team Ranking NASA Ranking**

\_\_\_\_\_\_\_ Box of matches \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ Food concentrate \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ 50 feet of nylon rope \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ Parachute silk \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ Portable heating unit \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ One case of dehydrated milk \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ Two 100 lb. tanks of oxygen \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ Stellar map (map of the stars) \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ Self-inflating life raft \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

\_\_\_\_\_\_\_ 20 liters of water \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

**Answers**

**Please share NASA’s answers and have the students write them down**

* Box of matches **10** Virtually worthless -- there's no oxygen on the moon to sustain a fire
* Food concentrate **4** Efficient means of supplying energy requirements
* 50 feet of nylon rope **5** Useful in scaling cliffs and tying injured together
* Parachute silk **6** Protection from the sun's rays
* Portable heating unit **9** Not needed unless on the dark side
* One case of dehydrated milk **8** Bulkier duplication of food concentrate
* Two 100 lb. tanks of oxygen **1** Most pressing survival need (weight is not a factor since gravity is one-sixth of the Earth's -- each tank would weigh only about 17 lbs. on the moon)
* Stellar map **3** Primary means of navigation – star patterns appear essentially identical on the moon as on Earth
* Self-inflating life raft **7** CO2 bottle in military raft may be used for propulsion
* 20 liters of water **2** Needed for replacement of tremendous liquid loss on the light side

**Discussion Questions**

1. Compare the accuracy of your answers to your team’s answers. Which set of answers most resembled NASA’s answers?
2. Typically, a team’s answers are closer to NASA’s answers. Why?
3. Did you lead or follow while working as a team?
4. Did you speak up or listen first?
5. Younger students look up to you. When you decide to make good choices, they are more likely to do the same. What are some ways to show younger students that working as a team is important?
6. We don’t always get to choose who we work with. What are some tips you would share with younger students on how to work better as a team?
7. Turn your paper and write or draw 5 things that send a message about positive citizenship and/or creating a community bond. Share these.