

NASA DECISION BY CONSENSUS ACTIVITY

SURVIVAL ON THE MOON

This exercise was originally designed by the National Aeronautics and Space Administration (NASA) to train astronauts prior to the first moon landing. It will provide practice in Consensus Decision-Making.

The Situation:

You are a member of one of two space details assigned to the mission ship "Galaxy," which was originally scheduled to rendezvous with the mother ship "Angel". Due to mechanical difficulties, however, the Galaxy was forced to land on the lighted side of the Moon, some 200 miles from the rendezvous point. In an accident during piloting and landing, some of the crew and the Captain died. Much of the equipment aboard was damaged. No one knows for sure how long the ship's life support systems will last because all gauges are broken. Survival is critical.

Listed on the following worksheet are the 15 items left intact and undamaged after landing. Your task, first individually and then as a team, is to rank order the 15 items in terms of their importance to the survival of the remaining crew of the mission ship, Galaxy.

Procedure:

- First, each team member should rank each item individually.
- Second, the full team should discuss and debate each team member's reasoning for his or her ranking.
- Third, the group should agree on a final ranking through consensus.

The official NASA ranking and a brief statement of reasoning for each decision is presented after the worksheet. These rankings were developed by a panel of experts and should be considered the "textbook" answers for this exercise. Based on more recent knowledge gained about the Moon, there can be viable arguments for changing some of the rankings of the less obvious items.

In nearly all instances, the group's agreed upon ranking is considerably closer to the NASA ranking than are most individual's rankings.

NASA DECISION BY CONSENSUS WORKSHEET

Rank Ordering Of Undamaged Survival Items:

Items	Individual ranking	Group ranking	Individual differences	Group differences
One box of matches				
100 cartons of food concentrate (20-day ration for each crew member)				
50 feet of nylon rope				
Parachute silk (from 3 parachutes)				
One portable heating unit				
45-calibre loaded pistol				
One case dehydrated milk				
Two 100 lb. tanks of oxygen (Each tank holds 20-day supply for each crew member)				
One stellar map (of the moon's constellation)				
One self-inflating life raft				
One magnetic compass				
5 gallons of water (Normally a 10-day ration for each member of the crew)				
Five self-igniting signal flares				
First-aid kit containing injection needles				
Battery-powered FM receiver-transceiver				
Total differences	—	—		