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MARS  NE



Life on Mars

A. Compare your ideas with the characteristics from Mars One:

Characteristic

1. Resiliency
2. Adaptability
3. Curiosity
4. Ability to Trust
5. Creativity / Resourcefulness



B. Now match a characteristic above with a practical application below:

Practical Applications

a.

You are flexible in how an issue / problem / situation is approached.

You are not constrained by the way you were initially taught when seeking solutions.

Your humor is a creative resource, used appropriately as an emerging contextual response.

You have a good sense of play and spirit of playfulness.

You are aware of different forms of creativity.

b.

You trust in yourself and maintain trust in others.

Your trust is built upon good judgment.

You have self-informed trust.

Your reflection on previous experiences helps to inform the exchange of trust.

c.

You adapt to situations and individuals, while taking into account the context of the situation.

You know your boundaries, and how/when to extend them.

You are open and tolerant of ideas and approaches different from your own.

You draw from the unique nature of individual cultural backgrounds.

d.

You ask questions to understand, not to simply get answers.

You are transferring knowledge to others, not simply showcasing what you know or what others do not.

e.

Your thought processes are persistent.

You persevere and remain productive.

You see the connection between your internal and external self.

You are at your best when things are at their worst.

You have indomitable spirit.

You understand the purpose of actions may not be clear in the moment, but there is good reason—you trust those who guide you.

You have a "Can do!" attitude.





The NASA Game

You have landed 80km off-course & need to get back to base. You have the following equipment:

Life raft - a self-inflatable floatation device

Two 45.5-kilogram (100-pound) tanks of oxygen -pressurized tanks of oxygen

Space blanket - a thin sheet of plastic material that is coated with a metallic reflecting layer

Lights with solar-powered rechargeable batteries - portable lights powered by solar batteries

Signal mirror - a handheld mirror

38 liters (10 gallons) of water - a container of water

First aid kit - a basic first aid kit with pain medication and medicine for infection

Food concentrate - dehydrated food to which water is added

Magnetic compass - a tool that uses a magnetic field to determine direction

Solar-powered radio receiver-transmitter - a communication tool powered by the sun

Map of the Moon's surface- a map showing the Moon's terrain

15 meters (about 50 feet) of nylon rope - manufactured rope

Parachute - a large piece of silk cloth

Space suit repair kit - materials to repair tiny holes in fabric

Box of matches - wooden sticks with sulfur-treated heads

Rank the equipment 1 > 15 in order of usefulness.

An 'expert's ranking & reasons:

1) Two 45.5-kilogram - (100-pound tanks of oxygen “With basically no atmosphere on the Moon, oxygen (O₂) to breathe is the most pressing survival need. The average person needs about 0.84 kilograms (a little less than 2 pounds) of O₂ per day.”

2) 38 liters (10 gallons) of water - “Though we believe there is some water in the form of ice on the Moon, there is no liquid water. Water is essential to all life. Currently, each astronaut aboard the International Space Station (ISS) uses about 11 liters (3 gallons) of water daily.”

3) Food concentrate - “Food concentrate is a good source of food and an efficient way to carry it.”

4) Solar-powered radio receiver transmitter - “Hopefully people from the lunar outpost are looking for you while you are trying to reach them. A solar powered radio receiver-transmitter is important to maintain this communication.”

5) First aid kit - “No matter where you are, a first aid kit is a good idea. Be sure you carry pain medication and medicine for infections.”

6) Map of the Moon’s surface - “A map of the Moon’s surface is your primary way to identify your location and to help you navigate.”

7) Space suit repair kit - “You cannot afford to have any tears in your space suit. Your suit protects you from harsh conditions while you make your way to the lunar outpost. The soil of the Moon (regolith) ‘sticks’ to space suits and equipment. It is very sharp, like tiny fragments of glass or coral, and can cut holes that put your life at risk.”

8) 15 meters (about 50 feet) of nylon – rope “The nylon rope is useful in scaling cliffs or craters you may have to cross. To prevent injury or in case you cannot walk, rope is helpful for tying you to others.”

9) Space blanket - “The space blanket helps reduce heat loss from a person’s body. The reflective material reflects about 80 percent of the wearer’s body heat back to the body. The reflected side is also used to prevent absorption of sunlight.”

10) Signal mirror - “The signal mirror is an important way to communicate during the daylight. The Moon’s daylight is brighter and harsher than Earth’s. There is virtually no atmosphere to scatter the light, no clouds to shade it, and no ozone layer to block the sun burning ultraviolet light.”

11) Lights with solar-powered - rechargeable batteries “These lights allow for night time travel. The nights on the Moon are brighter than nights on Earth, at least on the side of the Moon that is facing Earth. With its clouds and oceans, Earth reflects more light than the dark Moon rocks. Earthlight on the Moon is much brighter than moonlight on Earth.”

12) Life raft - “A life raft is of little use for survival on the Moon. Although it could be used to drag heavy items, the sharp regolith would quickly puncture the raft.”

13) Parachute silk - “Compared to other items, this item is of little use.”

14) Magnetic compass - “The Moon has no global magnetic field, which makes a magnetic compass virtually useless.”

15) Box of matches - “Matches are virtually useless on the Moon because there is little oxygen.

Taken from: http://www.nasa.gov/pdf/166504main_Survival.pdf