|  |  |  |
| --- | --- | --- |
| **Check the Top 10** | **Object** | **Mass(kg)** |
|  | 1. Oxygen Tank with Mask
 | 3 kg |
|  | 1. Ipad with movies
 | .6 kg |
|  | 1. Musical instrument (guitar)
 | 1 kg |
|  | 1. Blood Pressure Cuff & Monitor
 | 1 kg |
|  | 1. Digital Camera
 | .5 kg |
|  | 1. Epinephrine (EpiPen)- 5 count
 | .2kg |
|  | 1. AED (Automated External Defibrillator)
 | 1.4 kg |
|  | 1. IV Equipment with fluids
 | 2 kg |
|  | 1. Pictures of friends/family
 | .6 kg |
|  | 1. Blood Oximeter (Blood Oxygen)
 | .3 kg |
|  | 1. Diazepam: treats anxiety, muscle spasms, and seizures
 | .1kg |
|  | 1. Stethoscope
 | .2 |
|  | 1. Your favorite book
 | .5 kg |
|  | 1. Albuterol- 5 count
 | .2 kg |
|  | 1. LED Headlamp
 | .2 kg |
|  | 1. Dental Kit
 | .6 kg |
|  | 1. Ibuprofen/ Acetaminophen (Pain Medication)
 | .1 kg |
|  | 1. General Antibiotics
 | .2 kg |
|  | 1. Mirror
 | .5 kg |
|  | 1. Mylar blanket
 | .1 kg |

**Discussion Points:**

1. **What items did you initially choose to bring? Why?**
2. **What items did you leave behind once the Ideal Mass was revealed? Why?**
3. **What other information about each item would have been helpful?**
4. **What else about the mission would have been helpful to know?**
5. **Were you successful in completing the mission? Explain.**
6. **Bonus: How could you think about quantifying the benefit and cost of each of these items?**

**Anomaly List (Cut apart)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Homesick** |  **Is anyone a dentist? I have a toothache here!** | **Dehydration** | **Difficulty Breathing** |
| **Homesick** | **Heart Attack** | **Dehydration** | **Difficulty Breathing** |
| **Homesick** | **Heart Attack** | **Bacterial Infection** | **Difficulty Breathing** |
| **Homesick** | **Heart Attack** | **Bacterial Infection** | **Difficulty Breathing** |
|  **Is anyone a dentist? I have a toothache here!** | **Heart Attack** | **Bacterial Infection** | **Seizure** |
|  **Is anyone a dentist? I have a toothache here!** | **Dehydration** | **Bacterial Infection** | **Seizure** |
|  **Is anyone a dentist? I have a toothache here!** | **Dehydration** | **Seizure** | **Seizure** |
| **Who turned the lights out?** | **Who turned the lights out?** | **Who turned the lights out?** | **Who turned the lights out?** |
| **I’m bored!** | **I’m bored!** | **I’m bored!** | **I’m bored!** |
| **The heat went out!****Soooo Cold! Hypothermia is setting in….** | **The heat went out!****Soooo Cold! Hypothermia is setting in….** | **The heat went out!****Soooo Cold! Hypothermia is setting in….** | **The heat went out!****Soooo Cold! Hypothermia is setting in….** |
| **Ouch! Back pain from working on Mars surface!**  | **Ouch! Back pain from working on Mars surface!** | **Ouch! Back pain from working on Mars surface!** | **Ouch! Back pain from working on Mars surface!** |
| **You find life on Mars! Can you provide evidence of it?** | **You find life on Mars! Can you provide evidence of it?** | **You find life on Mars! Can you provide evidence of it?** | **You find life on Mars! Can you provide evidence of it?** |
| **Yikes! You suffer a fall while on an EVA on the surface of Mars!** | **Yikes! You suffer a fall while on an EVA on the surface of Mars!** | **Yikes! You suffer a fall while on an EVA on the surface of Mars!** | **Yikes! You suffer a fall while on an EVA on the surface of Mars!** |

**Anomaly List (Digital Wheel)**

[**https://wheelofnames.com/yz2-had**](https://wheelofnames.com/yz2-had)