|  |  |  |
| --- | --- | --- |
| **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)