**Priorities for a land base on Mars**

**To do:**

Assume that a fully functioning land base on Mars is occupied by 30 staff at any one time.

Sort the following ‘needs’ into an order of priority.

Use an ordering system that makes the most sense to your group.

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| --- | --- |
| Electrical generation. | Space to be alone. |
| Water recycling system. | Supply of safe water. |
| Communal space for socialising. | Equipment that is repairable on Mars. |
| Protection from solar radiation. | Back-up for oxygen production. |
| Space suits. | Radiation protection. |
| Oxygen production. | Exercise equipment. |
| Food production. | Weaponry. |
| Clear command structure. | Communication equipment. |
| Multiple people able to operate, maintain and repair each piece of equipment. | Batteries. |
| Transport back to Earth for all staff. | Emergency transport back to Earth for a small group. |

**To consider:**

Are there any essential needs that are missing from this list? (What are they?)

What challenges will face those living in a land base on Mars?

How can these challenges be mitigated (reduced) by careful design?

What factors could make compromises to the best design necessary?

Who should decide what compromises are acceptable?