

Worksheet

Astronomy Life in Outer Space

Q1. What life supporting essentials would be needed in a space flight to Mars?

Q2. What does apparent weightlessness mean?

Q3. Normally, the heart has to suck blood against gravity the veins have valves that control the direction of blood flow and the pressure of muscles helps maintain capillary action and lymph fluid movement. What would be the effect of apparent weightlessness on the heart and the circulatory system?

Q4. What would happen to the eyes and the balance system?

Q5. Bone density is affected by calcium take, hormone function and gravity. People who are heavier, work harder and carry heavy weights have heavier bone density. What would be the effect of long periods of weightlessness?

Q6. Brain function is dependent on it being continually used. One brain function that would lose its importance in space flight to Mars would be the maintenance of the balance system. What could happen after a long space flight?

Q7. Space flight could be very stressful. The more stress we are put under the more protein is used up. What would be a special requirement of space flight.?

Q8. Considering the cost of space flight, list some good things that could come out of space travel and some problems

<u>Good outcomes</u>	<u>Poor outcomes</u>

Q9. Would it be possible for humans to take long space flights to other solar systems?

Q10. What problems would they face?

Q11. How could long distant space flights to other solar systems be accomplished?