

Sound.

I. HOTS:

1. While you are on the moon, would you be able to talk to each other? If not, then what is the alternative.

Ans: Sound can't be heard on the moon because sound needs a medium and particles to travel. Since moon has no atmosphere sound cannot travel through vacuum. Astronauts communicate through sign language and radio transmission.

2. What is sonic boom? How is it caused? What are its effects?

Ans: Sonic boom is an audible sound wave generated by an object that moves faster than the speed of sound. The sonic boom forms because the air is pushed away faster than the air molecules can move. The displaced air becomes highly compressed and creates a very strong sound wave.

Impacts of sonic boom:

- Physiological response causes lowered immune system resulting in illness, unfitness etc.,
- Chronic noise may make habitats unsuitable.