

Lunar Litter Discussion Guide

This series of questions is designed to provoke discussions about space exploration and the environment, after having viewed "An Incomplete List of Things We Left Behind on the Moon" (www.lunarlitter.com).

Suggested exercise: Many of these questions have an agree/disagree component to them. Split the class into two groups (a for and against group), and have each prepare as many arguments for or against the proposition as possible, then reconvene and have them present. For example: should we send our nuclear waste into space?

Environmental Questions

1. How do you feel about the amount of "lunar litter" we left behind? Was it right? Unavoidable?
2. Is leftover debris from the manned missions different from the various probes the US and the USSR landed on the moon in the 1970s?
3. Some radioactive nuclear waste can take millions of years to fully break down and become non-toxic. Since space is infinitely large, some people have suggested we send it into space. What do you think?
4. Would you feel differently if an alien civilization sent their waste towards our solar system?
5. Humans have launched thousands of satellites into space, and sometimes these break apart and "space debris" is created. NASA says that they track 22,000 bits of this debris orbiting Earth, sometimes as small as 5 centimeters in size. Sometimes these collide at high speed with the International Space Station, causing damage. What do you think the challenges might be in cleaning this up?

Space Exploration Questions

1. Why do you think we haven't been back to the moon since the 1970s?
2. As Neil Armstrong made headlines worldwide when he set foot on the moon in 1969, many people predicted that everyday people would venture into space as tourists by the year 2000. Why do you think this hasn't happened?
3. Future space tourists might want to visit the spot of the original moon landings. Should they be allowed to?
4. Would you feel differently if an alien civilization sent their waste towards our solar system?
5. NASA no longer launches its own shuttles, instead relying on the Russian government to boost its astronauts to the International Space Station, and private companies to launch supplies. Many believe the future of space exploration will be in the hands of private companies instead of the government. What do you think some of the strengths of this approach might be? What about some of the weaknesses?

Short science video available at:
www.lunarlitter.com