Name _____

The Silent Journey: Can You Hear Meteors as They Pass Through the Atmosphere?

Multiple Choice Questions

1. What is the primary reason meteoroids burn up upon entering Earth's atmosphere?

a) They collide with other objects in space.

b) They lose their structural integrity due to pressure changes.

c) Atmospheric drag converts their kinetic energy into thermal energy.

d) They explode upon contact with the atmosphere.

2. Which form of energy is converted into thermal energy when a meteoroid enters Earth's atmosphere?

a) Gravitational energy

b) Electrical energy

c) Kinetic energy

d) Magnetic energy

3. What is the approximate speed of sound in Earth's atmosphere at sea level?

a) 100 miles per hour

b) 767 miles per hour

c) 2,000 miles per hour

d) 10,000 miles per hour

4. Why do meteoroids not produce sound waves that can be heard by humans?

a) Because they disintegrate upon entering the atmosphere

b) Because they are too small to produce sound

c) Because they move faster than the speed of sound

d) Because they emit light instead of sound

5. What is the outcome of meteoroids moving faster than the speed of sound in Earth's atmosphere?

a) They create sonic booms.

b) They produce high-pitched whistles.

c) They outpace their own sound and remain silent.

d) They generate thunder-like noises.