

Name _____

Cosmic Collisions: Can Comets Collide with Earth?

Multiple Choice Questions

1. What are comets primarily composed of?
 - a) Rocks and minerals
 - b) Water, carbon dioxide, methane, and volatile compounds
 - c) Iron and nickel
 - d) Helium and hydrogen

2. Where are comets often found in the solar system?
 - a) Orbiting close to the Sun
 - b) In the asteroid belt
 - c) In the Kuiper Belt and the Oort Cloud
 - d) Between Mars and Jupiter

3. Why do comets have tails?
 - a) Due to their rocky composition
 - b) Because of their high temperatures
 - c) As a result of interactions with the solar wind and solar radiation
 - d) Because they are constantly on fire

4. Why is the likelihood of a direct comet-Earth collision exceedingly rare?
 - a) Earth's circular orbit
 - b) The small size of comets compared to Earth
 - c) Earth's strong gravitational pull
 - d) The vastness of space

5. What is the purpose of monitoring and tracking near-Earth objects (NEOs)?
 - a) To capture and study them
 - b) To deflect them away from Earth
 - c) To assess potential impacts and develop mitigation strategies
 - d) To mine them for resources

