

Name _____

Factors Influencing Kinetic Energy: What Makes Things Move?

Open-Ended Response Questions

1. Compare and contrast the impact of mass and speed on an object's kinetic energy. How do these factors interact when determining kinetic energy?
2. Investigate real-world applications where kinetic energy is critical. Describe how these applications rely on factors such as mass, speed, and direction of motion.
3. Imagine you are designing a car race for a science fair. Explain how you would create an exciting racecourse that highlights the role of kinetic energy, considering factors like mass, speed, and direction.
4. Discuss the importance of understanding kinetic energy when it comes to safety in activities like sports, transportation, and construction. Provide examples of safety measures that consider kinetic energy.

