Kinetic Energy and Potential Energy

Guiding Questions

DIrections: Answer each of the following three questions. Each answer should be 4-6 sentences long for EACH question, with details from the textbook to back up your response.

What determines an object's kinetic energy? This equation that determines an object's kinetic energy reveals that the kinetic energy of an object is directly proportional to the square of its speed. That means that for a twofold increase in speed, the kinetic energy will increase by a factor of four.

What factors affect potential energy? The factors that affect potential energy are an object's gravitational potential energy. It’s height relative to some reference point, its mass, and the strength of the gravitational field it is in.

What is the relationship between potential and kinetic energy? The relationship between potential energy and kinetic energy is potential energy is the type of energy that has the potential to transform into kinetic energy, or in other words, to do work. Kinetic energy is the energy that an object possesses by virtue of being in motion.