Name:
Grade: 8
Physics worksheet

Mechanical Energy

1)The kinetic energy of a body depends on its height.

2)A body cannot have potential energy and kinetic energy at the same time.

3)The potential energy of a body is related to its position in reference to the ground.

4)As the mass of a body increase, its potential energy and kinetic energy increase.

Question two: Potential Energy

At a circus, a clown whose mass is equal to 62Kg jumps from a height of 4m on a trampoline.

Calculate his gravitational potential energy at this height. Given g=10N/Kg.

Question three: Kinetic Energy

A walker of mass equal to 62Kg moves at a constant speed of 8Km/h.

a)Express this velocity in m/s.

b)Calculate his kinetic energy.

Question four: Mass and Kinetic Energy

This exercise aims to study the variation of the kinetic energy of a vehicle in terms to its mass m.

1)Complete the following table:

Speed in m/s	**4**	**4**	**4**
Mass in Kg	**0.5**	**1**	**2**
Kinetic energy (J)			

2)Draw a graph showing the variation of the Kinetic energy as a function of the mass.

3)Is the kinetic energy proportional to the mass? Why?