State the equation for Gravitational Potential Energy, GPE.

Calculate the GPE of a 70Kg man stood at the top of a 100m waterfall.

Determine his KE as he hits the water.
The object has a velocity of 4.5m/s

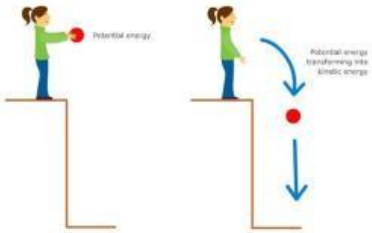
Define potential energy.

Define kinetic energy.

State the equation for Kinetic Energy?

Calculate the KE of a 60Kg sprinter running at 8m/s.

Year 8 Science
Potential and Kinetic Energy



1. A skateboarder with a mass of 55kg is sitting on top of a 30-meter-high hill. **Determine** their gravitational potential energy?

2. **Determine** the potential energy of a 20 kg rock sitting on the edge of a 300-meter-high mountain top.

3. **Determine** the potential energy of a 30 kg rock sitting on the edge of a 400-meter-high mountain top.

A roller coaster climbs to the top of a tall track and then races down the other side. **Describe** how the energy changes as it goes from the top to the bottom.

State how many joules in a kilojoule?

State how many kilojoules in a megajoule?

Covert 5 Megajoules to joules.

Convert 20 kilojoules to megajoules.

A car has a mass of 1500 kg and a velocity of 30 m/s. **Determine** the kinetic energy of the car.

A person is riding a bicycle. The total mass of the rider and bike is 80 kg and, they are riding at 4 m/s. **Determine** the total kinetic energy of the rider and bike.

LIVEWORKSHEETS