

**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.

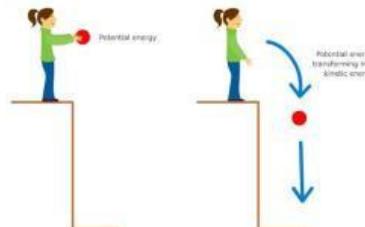
**Define** kinetic energy.

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** the equation for Kinetic Energy?

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

### Year 8 Science Potential and Kinetic Energy



**State** how many joules in a kilojoule?

**State** how many kilojoules in a megajoule?

Convert 5 Megajoules to joules.

Convert 20 kilojoules to megajoules.

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.