LofCofE

Law of Conservation of Energy

Energy is never lost, it is just transferred.

Types of Energy:

* Dark Energy
* Kinetic Energy (KE)
* Electrical Energy
* Nuclear Energy (Atomic Energy)
* Chemical Energy
* Gravitational Potential Energy (PE)

Kinetic Energy: This is the energy associated with movement. (KE)

Gravitational Potential Energy: Energy associated with how high something is from the Earth. (PE)

Work: The amount of force applied to an object over a distance. W=Fd, W is Work, F is Force, d is distance.

KE = 1/2mv2, m is mass, v is velocity.

PE=Fd=mgh , m is mass, g is 9.81m/s2, h is height.

Ei = Ef

KEi + PEi = KEf + PEf

1/2mvi2 + mghi = 1/2mvf2 + mghf

Tyrell loves skydiving because no matter where he drops, he survives all impacts without a parachute. Tyrell falls from a plane that is 4.6km above the Earth. What is his speed at the following heights?

1. 3.2km above ground
2. 1.1km above ground
3. 0km (With what speed does he hit the ground?)