Part B: Conservation of energy quantitative

Imagine a rock is falling down and takes ten seconds to hit the ground. The following table shows its kinetic energy and gravitational potential energy as it falls. The energy follows two rules:

KE + GPE = Total Energy

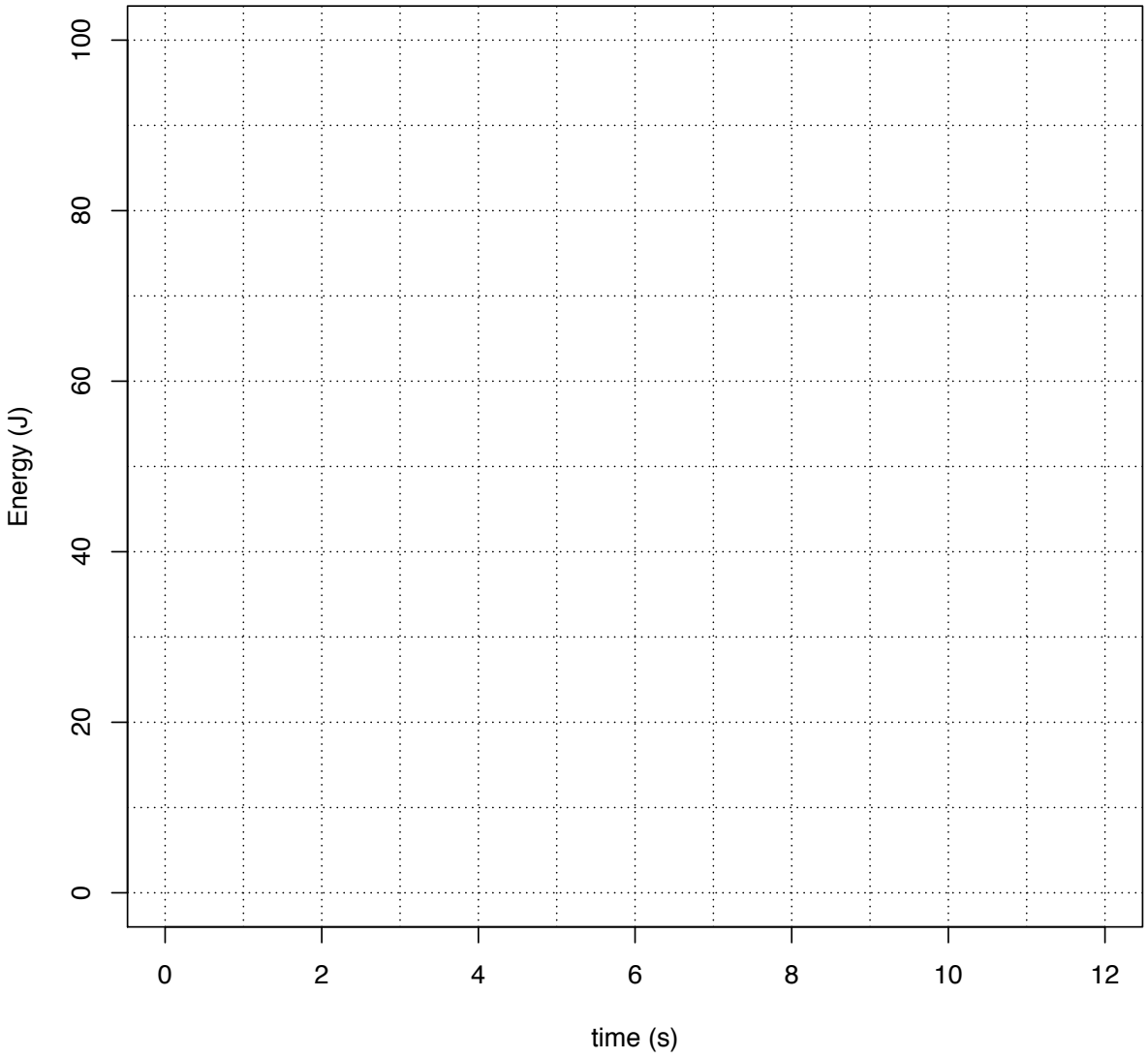
Total Energy does not change!

Time (seconds)	**Kinetic Energy (Joules)**	**Gravitational Potential Energy (Joules)**	**Total Energy (Joules)**
0	0		
2	20		
4	40	60	
6		40	
8	80		
10		0	

On the next page, create a graph of Kinetic Energy, Gravitational Potential Energy, and Total Energy.

Use a different mark for each quantity:

Quantity	**Mark**
Kinetic Energy	•
Gravitational Potential Energy	○
Total Energy	x



As the rock falls, what happens to Kinetic Energy?

As the rock falls, what happens to Gravitational Potential Energy?

As the rock falls, what happens to Total Energy?

What law states that total energy should not change?