

Conservation of Energy Notes

SPI 0607.10.4 Explain the Law of Conservation of Energy using data from a variety of energy transformations.

How Does a Roller Coaster Work?

- The _____ of _____ to _____
_____ is what drives the roller coaster, and all of the kinetic energy you need for the ride is present once the coaster descends the _____
_____.

Where Does the Energy Go?

- _____ - a _____ that _____ between two surfaces that are touching.
- _____ must be done on the roller coaster to overcome the friction.
- The energy to do this work comes from the original potential energy that the cars have on the first hill.
- When energy is used to overcome friction, some of the energy is _____ into thermal energy on the way down the first hill, and then some of their kinetic energy is converted into _____ on the way up the second hill (smaller than the first).
- So energy isn't lost at all - it just undergoes a _____!

The Law

- No situation has been found where energy is not conserved.
- The _____ of _____ of energy states that energy can be neither created nor destroyed.
- Energy can be changed from one form to another, but all the different forms of energy in a system always add up to the same total amount of energy.