

Law of Conservation of Energy

- ◆ Energy can be neither _____ by ordinary means.
- ◆ Energy can be _____ from one form to another.
- ◆ The total amount of _____ is the _____ before and after any energy transformation.

Energy Transfer

Energy **TRANSFER** is the _____ from one object to another object.

Example: A cup of hot tea has _____ energy. Some of this thermal energy is _____ to the particles in cold milk, in which you put to make the coffee cooler.

Energy Transformation

- ◆ A change from one form of energy to another.
- ◆ Single Transformations
 - ◆ Occur when _____ form of _____ needs to be _____ into another to get work done.
- ◆ Multiple Transformations
 - ◆ Occur when a _____ of energy transformations are needed to do work
 - ◆ An objects energy can be:
 - ◆ As velocity _____ kinetic energy _____ and potential energy
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WHAT IS THE TYPE OF RELATIONSHIP KE AND PE HAVE? _____

Roller Coasters

Does energy get transferred or transformed?

- ◆ As you move up to the first hill on a roller coaster the distance between the coaster and the Earth _____, resulting in an increase of _____
- ◆ At the top of the first hill you have the _____ Gravitational Potential Energy
- ◆ As you begin your trip down the hill you _____ your speed resulting in a transformation from _____.
- ◆ At the bottom of the hill right before it goes back upward the _____, but the _____
- ◆ As it starts to move up the next hill or loop KE is _____ back into GPE

