

Introduction to Energy Notes

DCI 6PS3.1 Analyze the properties and compare the sources of kinetic, elastic potential, gravitational potential, electric potential, chemical, and thermal energy

- Energy is the ability to do _____.
- Work is the _____ of _____.
- Work occurs when a _____ causes an object to _____ in the _____ of the force.
- What is the relationship between work and energy?

What are the Two Types of Energy?

- _____ energy is the _____ of _____.
- _____ energy is the _____ of _____ or _____; (stored energy)

What is Mechanical Energy?

- _____ energy is the _____ of _____ and _____ of an object.
- _____ energy = _____ energy + _____ energy

3 Kinds of Potential Energy

1. _____ potential energy - energy stored in stretched out items. After the item is stretched it returns to its original position or shape.
 - Ex:
2. _____ potential energy - energy given to an object after it has been lifted or elevated
 - Ex:
3. _____ potential energy - Energy stored in the bonds of chemical compounds
 -

The 5 Kinds of Kinetic Energy

1. _____ energy - the energy of an object due to the kinetic energy of its atoms & molecules.
 - Also known as radiant energy
 - More kinetic energy = _____
 - Example: _____
2. _____ energy - energy made available by the flow of an electric charge through a conductor
 - Example: _____
3. _____ energy - the energy of electromagnetic radiation
 - Example: _____
4. _____ energy - energy associated with the vibration or disturbance of matter
 - Example: _____
5. _____ energy - The energy associated with changes in the nucleus of an atom through fission or fusion.
 - Example: _____
 - Everything is made up of _____!
 - They are made of _____, _____ and _____.
 - In order to create nuclear power an atom must either be _____ (fission) in two or _____ (Fusion) with another atom.
 - This is not a process that is easily done. It requires a lot of work and highly qualified people— as well as advanced technology.