

**Lesson Question****Lesson Goals**Define .

Explain how energy and are related.

Identify and describe the different of energy.

**Words to Know**

Write the letter of the definition next to the matching word as you work through the lesson. You may use the glossary to help you.

___ kinetic energy

A. the ability to do work

___ mechanical energy

B. the stored energy an object has due to its position or shape

___ energy

C. the energy an object has because of its motion

___ potential energy

D. the energy of an object due to its potential energy and kinetic energy

**Work and Power**

- Work is the use of to move an object over a distance.
- is the rate at which work is done.

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Energy

- is the ability to do work.
 - Work being done means energy is being .

Work and Energy

- Work energy.
 - Work can energy between objects.
 - Work can cause a change in the of energy.
 - Work can change potential energy into energy, or the energy of motion.
- Energy and work share the same unit— (J).

W
2k

Words to Know

Fill in this table as you work through the lesson. You may use the glossary to help you.

compress	to press in to make more <input type="text"/>
chemical potential energy	the energy stored in the <input type="text"/> of atoms

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2K**Words to Know**

elastic potential energy	the energy stored in a compressed or <input type="text"/> object
gravitational potential energy	the energy of an object due to its <input type="text"/> above a surface
internal energy	the <input type="text"/> potential and kinetic energies of the particles in a substance

Kinetic and Potential Energy

- energy is the energy an object has because of its .
 - More = more energy
 - More motion = more
- energy is stored energy because of an object's or shape.

Mechanical Energy

- energy is the energy of an object because of its potential and kinetic energies.
 - Due to and position

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Gravitational Potential Energy

- potential energy is energy of an object because of its above a surface.
 - More = more energy
 - More = more energy

Elastic Potential Energy

- potential energy is energy stored because of stretching or compressing an object.
- To means to press in or make more compact

W
2k

Words to Know

Fill in this table as you work through the lesson. You may use the glossary to help you.

<input type="text"/>	the energy stored in the nucleus of an atom
<input type="text"/>	a disturbance that carries energy from one place to another through matter and space
<input type="text"/>	a type of wave that carries energy through space where there is almost no matter

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2K**Words to Know**

	the energy associated with electromagnetic waves
	the energy due to the flow electrical charges
	the part of total internal energy that can be transferred

Kinetic and Potential Energy at Different Scales

- Energy is described using two different scales: the energy of the object or the energy of the particles that make up the object.
- is the total potential and kinetic energies of the particles in a substance.

Chemical Potential Energy

- potential energy is energy stored in the chemical bonds of atoms.

Thermal Energy

- energy is part of the total internal energy transferred between substances.

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Nuclear Energy

- energy is energy stored in the nucleus of an atom.

Electrical Energy

- energy is energy from the flow of electrical charges.
 - Can be positive or

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Radiant Energy

- A is a disturbance that carries energy from one place to another.
 - An wave is a type of wave that carries energy through space where there is almost no matter.
 - energy is energy associated with electromagnetic waves.

Summary

Introduction to Energy

**Lesson
Question**

What is energy?

**Answer**

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2**Review: Key Concepts**

Energy is the ability to do . There are many forms of energy:

- energy
- energy
- energy
- potential energy
- potential energy
- energy



Summary

Introduction to Energy

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- potential energy
- energy
- energy
- energy
- energy

Use this space to write any questions or thoughts about this lesson.