**Lesson Question**



**?**

**W**

**2K**

of energy.

are related.

**Identify** and **describe** the different

**Explain** how energy and

.

**Define**

**Lesson Goals**

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

and kinetic energy

potential energy

C. the energy an object has because of its motion

energy

B. the stored energy an object has due to its

position or shape

mechanical energy

A. the ability to do work

kinetic 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.*

is the rate at which work is done.

•

to move an object over a distance.

**Work and Power**

* Work is the use of

**2**

**W**

**2K**

(J).

energy of motion.

* Energy and work share the same unit—

energy, or the

* Work can change potential energy into

of energy.

* Work can cause a change in the

energy between objects.

* Work can

energy.

**Work and Energy**

* Work

**Words to Know**

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

**Slide**

.

* Work being done means energy is being

is the ability to do work.

**Energy**

•

|  |  |
| --- | --- |
| compress | to press in to make more |
| chemical potential energy | the energy stored in the of atoms |

**W**

**2K**

**Words to Know**

or shape.

energy is stored energy because of an object’s

•

* More motion = more

= more energy

* More

.

energy is the energy an object has because of its

•

**Kinetic and Potential Energy**

and position

* Due to

**Mechanical Energy**

* energy is the energy of an object because of its potential and kinetic energies.

|  |  |
| --- | --- |
| elastic potential energy | the energy stored in a compressed or  object |
| gravitational potential energy | the energy of an object due to its above a surface |
| internal energy | the potential and kinetic energies of the particles in a substance |

**7**

**W**

**2K**

means to press in or make more compact

* To

**Elastic Potential Energy**

* potential energy is energy stored because of stretching or compressing an object.

**Words to Know**

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

**Slide**

= more energy

* More

= more energy

* More

above a surface.

potential energy is energy of an object because of its

•

**Gravitational Potential Energy**

|  |  |
| --- | --- |
|  | the energy stored in the nucleus of an atom |
|  | a disturbance that carries energy from one place to another through matter and space |
|  | a type of wave that carries energy through  space where there is almost no matter |

**W**

**2K**

**Words to Know**

particles in a substance.

is the total potential and kinetic energies of the

•

**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.

atoms.

potential energy is energy stored in the chemical bonds of

•

**Chemical Potential Energy**

**Thermal Energy**

* energy is part of the total internal energy transferred

between substances.

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

**12**

**14**

energy is energy associated with electromagnetic waves.

•

through space where there is almost no matter.

wave is a type of wave that carries energy

* An

**Radiant Energy**

* A is a disturbance that carries energy from one place to another.

**Slide**

**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

What is energy?

**Lesson Question**

**Slide**

energy

•

potential energy

•

potential energy

•

energy

•

energy

•

energy

•

. There are many forms of energy:

Energy is the ability to do

**Review: Key Concepts**

**?**

**Answer**

**2**

**Slide**

energy

•

energy

•

energy

•

energy

•

potential energy

•

**2**

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