Energy Notes

Energy –

Forms of energy include:

Examples of Electrical –

Examples of Chemical –

Examples of Radiant –

How is energy like money?

Kinetic Energy – energy in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Depends on an objects \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The \_\_\_\_\_\_\_\_\_\_\_\_\_ the mass or velocity, the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**the kinetic energy

Equation:

Energy is measured in units called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Which has a bigger effect on Kinetic Energy…Mass or Velocity?

Mass - When mass is doubled, Kinetic Energy is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

When velocity is doubled; Kinetic Energy is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A large truck has more kinetic energy than a motorcycle moving at the same speed. But speed is squared, so **\_\_\_\_\_\_\_\_\_\_\_** has a greater effect on kinetic energy than **\_\_\_\_\_\_\_\_\_\_\_** does.

Potential Energy - **\_\_\_\_\_\_\_\_\_\_\_\_\_** energy due to an object’s **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

When released, potential energy is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_\_\_\_\_\_\_\_ energy

Can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Elastic Potential Energy - Energy stored by something that can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example:

Chemical Potential Energy - Energy stored in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Example:

Gravitational Potential Energy - Energy stored by objects **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Example:

Depends on 3 things:

1. \_\_\_\_\_\_\_\_\_\_ of the object

Mass is measured in \_\_\_\_\_\_\_\_

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ due to gravity

On Earth, acceleration is \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \_\_\_\_\_\_\_\_\_\_\_\_\_ above the ground

Measured in \_\_\_\_\_\_\_\_\_\_\_\_

Equation:

Remember all energy can be measured in **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Energy is most noticeable as it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from one type to another

Transforming Energy Examples:

* Alarm clock –
* Curling iron –
* Toaster –
* CD player –
* Playing video games –

Transforming Chemical Energy in Fuel

1. Spark plug ignites fuel →
2. Gasses expand →

Mechanical Energy –

Equation:

ME = energy due to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an object

ME remains \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while kinetic and potential energy \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hitting ball in the air

Swinging on a swing

Energy can **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** from one **\_\_\_\_\_\_\_\_\_\_\_** to another, but the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of energy **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Energy \_\_\_\_\_\_\_ = Energy \_\_\_\_\_\_\_\_

Law of Conservation of Energy – energy \_\_\_\_\_\_\_\_\_\_\_\_\_\_ be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Where does the energy go? (slowing down on swing)

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ change mechanical energy into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Energy In your body

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy is transferred into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy that allows your body to \_\_\_\_\_\_\_\_\_\_\_\_\_
* Calorie (C) – a unit used to measure the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* 1 C = \_\_\_\_\_\_\_\_\_\_\_\_\_J