

## Waves of Energy Notes

Name \_\_\_\_\_

Class \_\_\_\_\_

Energy -

Work -

There are 9 forms of energy

1.

2.

3.

4.

5.

6.

7.

8.

9.

Law of Conservation of Energy -

Closed system -

Open system -

All of the 9 forms of energy are either kinetic or potential

Kinetic energy –

Potential energy –

You can calculate potential energy from gravity with the following formula:

PE =

This means there are two things that affect potential energy from gravity:

Unit of energy –

## Waves

Wave -

There are two main types of waves:

1. Mechanical waves -

Examples of mechanical waves -

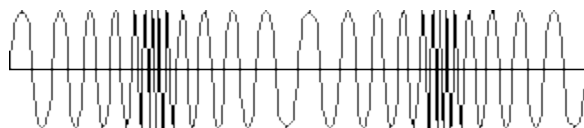
2. Electromagnetic waves -

Examples of electromagnetic waves -

Waves can be one of two types:

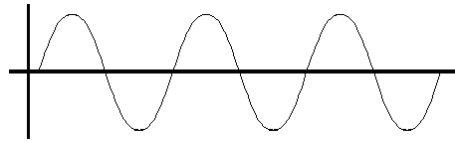
1. Longitudinal waves -

Example of a longitudinal wave -



## 2. Transverse waves -

Example of a transverse wave -



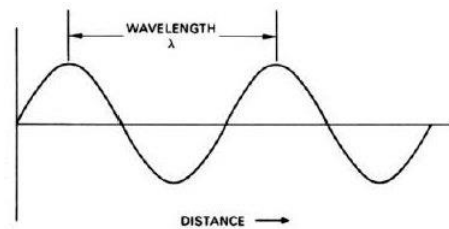
There are four ways you can describe a wave:

### 1. Wave speed -

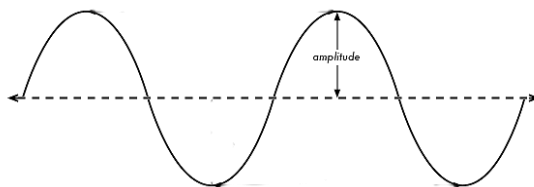
Mechanical waves get faster if ...

Electromagnetic waves all ...

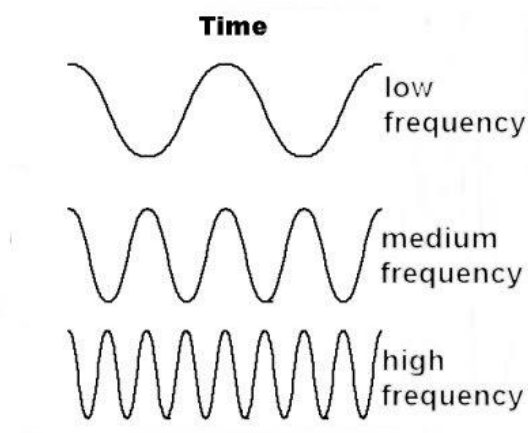
### 2. Wave wavelength -



### 3. Wave amplitude -



#### 4. Wave frequency -



### Thermal Energy

Thermal energy (heat) can travel three ways:

#### 1. Conduction -

Example of conduction -

#### 2. Convection -

Example of convection -

Radiation -

Example of radiation -