

## Intro to Waves

### Objectives

Identify general characteristics of waves.

Differentiate between transverse and longitudinal waves.

Calculate the frequency and time period of a wave.



## Waves

vibration that transfers energy through matter & space.

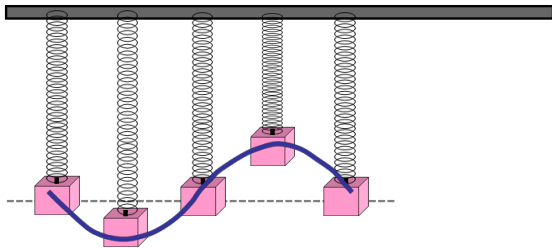
caused by a force



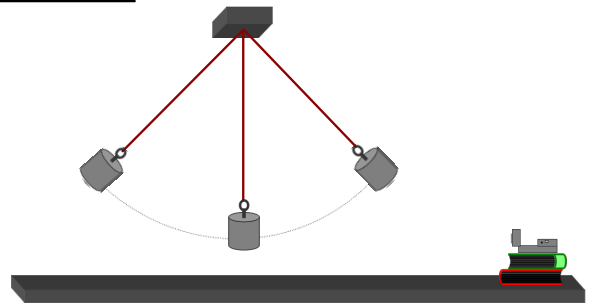
Sound, light, radio, microwaves, ocean, earthquake, TV, etc.

## Simple Harmonic Motion

- cycle of repeated motion
- vibration - wave



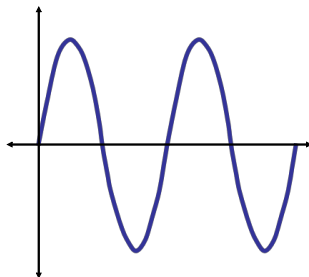
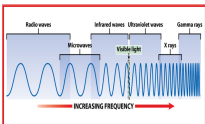
## Pendulum



## Transverse Wave

Motion of the medium is at right angles to direction of wave.

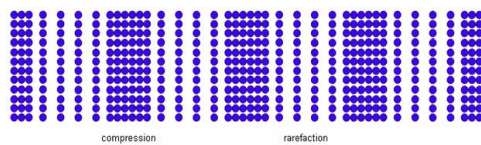
Electromagnetic Waves

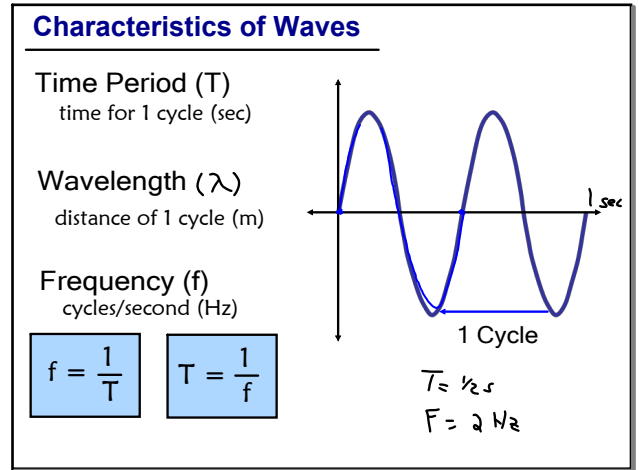
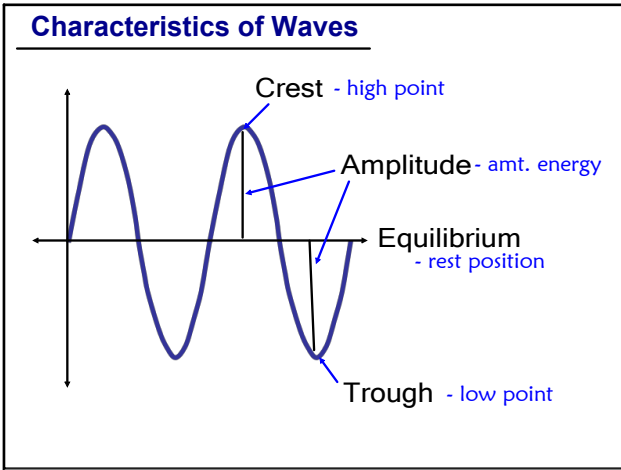
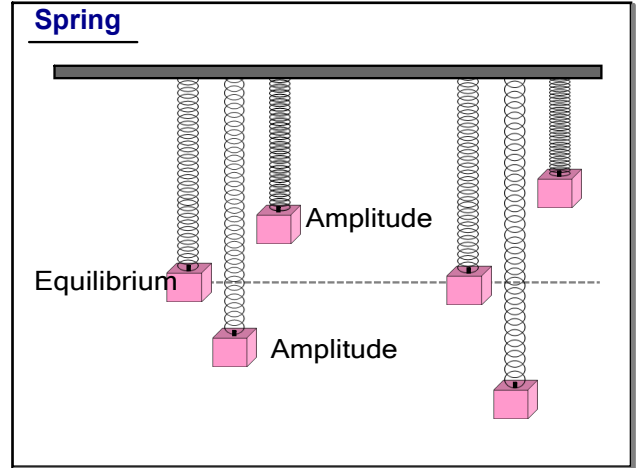
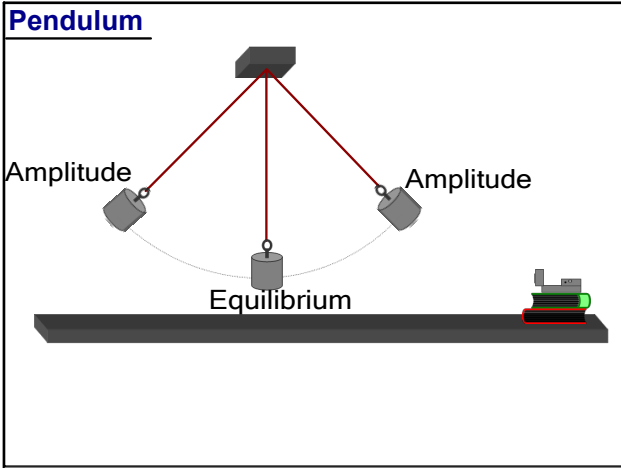


## Longitudinal Wave


Motion of medium is parallel to direction of wave.

Example: Sound





### Assignments . . .



- Chapter 18 Homework #5 - 11

