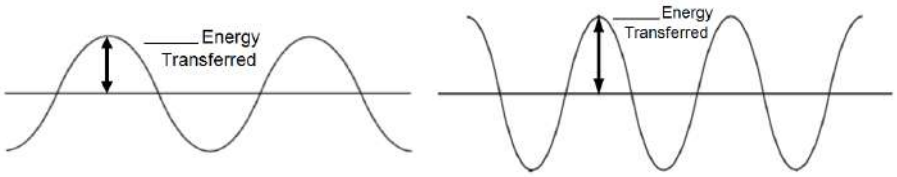
Changes in Waves

Essential Question:
How do changes in one part of a wave affect other parts of a wave? (S8P4a,f)

Use the PowerPoint to fill in the Changes in Wave Properties Notes

Changes in Wave Properties Name_____ Date_____Period___

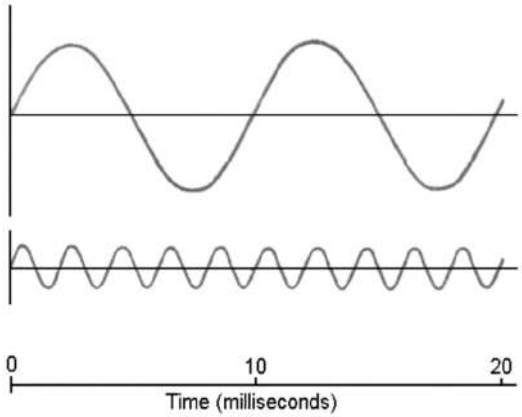
Larger Amplitude =



Frequency is _____

Wavelength and Frequency are inversely related. If a wave is traveling at the same speed, as the _____ of a wave _____, its _____ _____.

The same is true in reverse. As the _____ of a wave _____, its _____ _____.



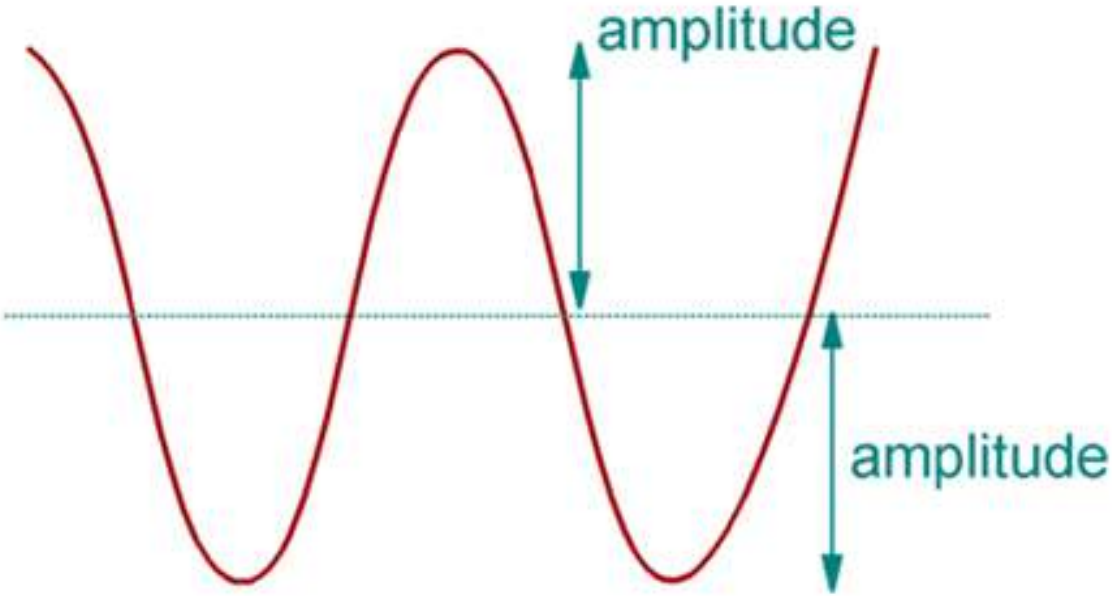
Wavelength, Frequency, and Energy

Shorter _____ = _____ Frequency = _____ Energy

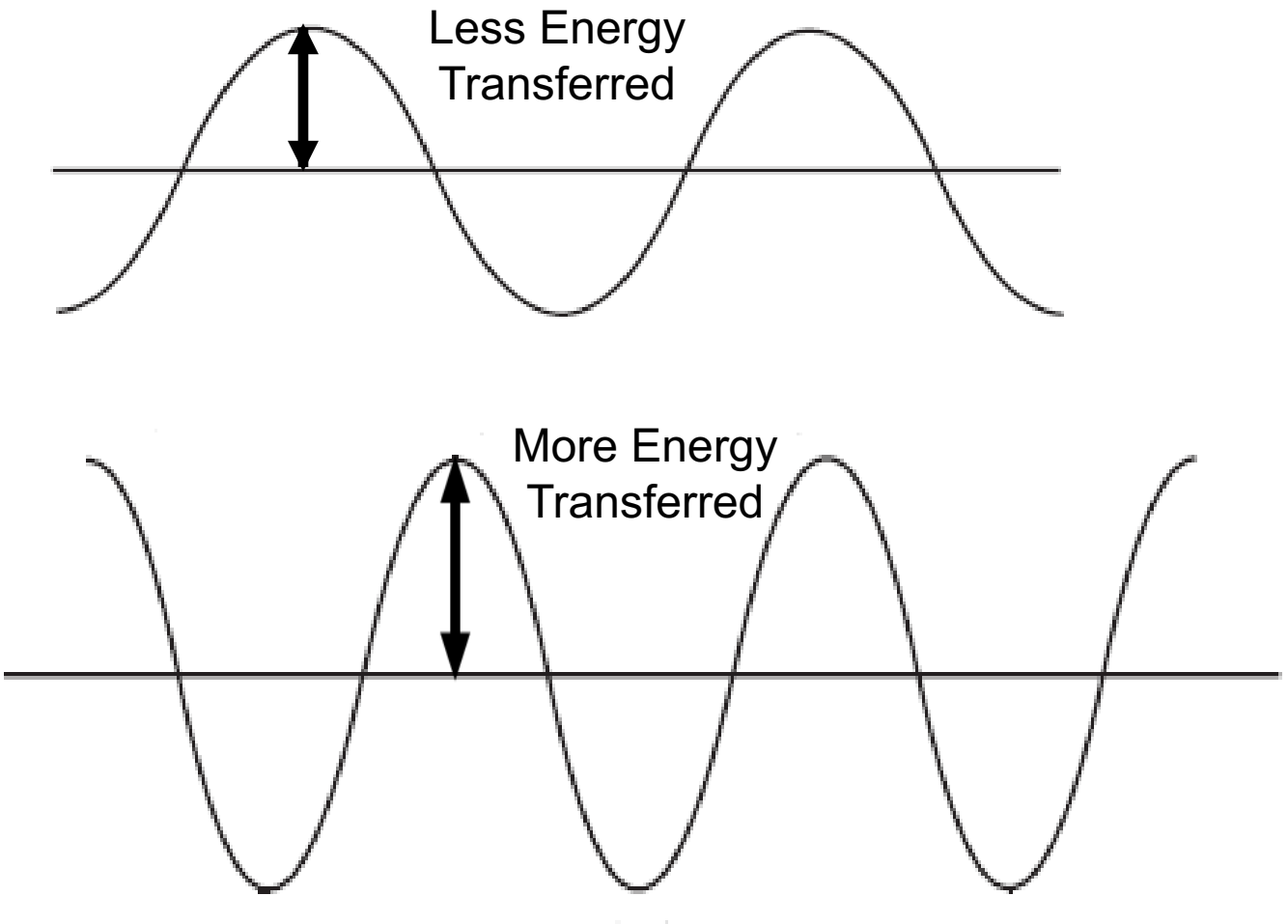
_____ Wavelength = Lower _____ = Less _____

Review: Parts of a Transverse Wave

The **amplitude** is the peak (greatest) value (either positive or negative) of a wave. The distance from the undisturbed level to the trough or crest.

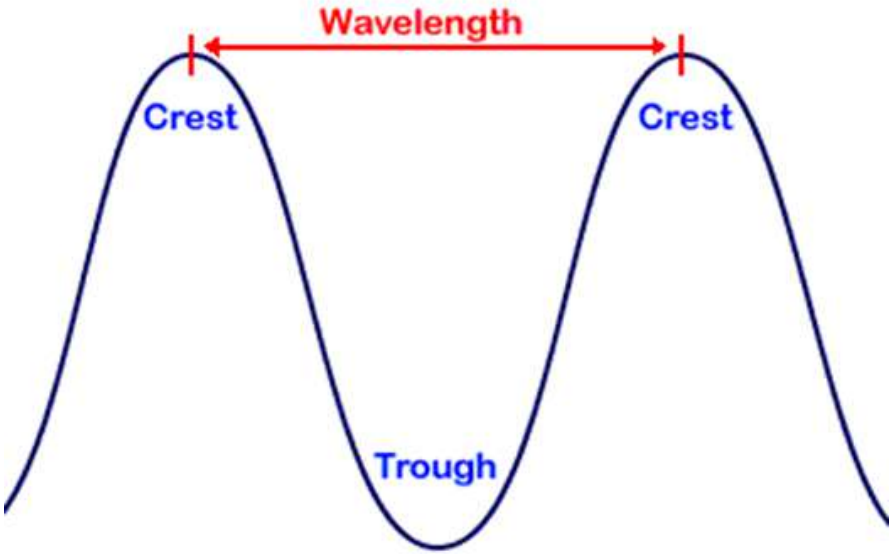


Larger amplitude = More Energy



Review: Parts of a Wave

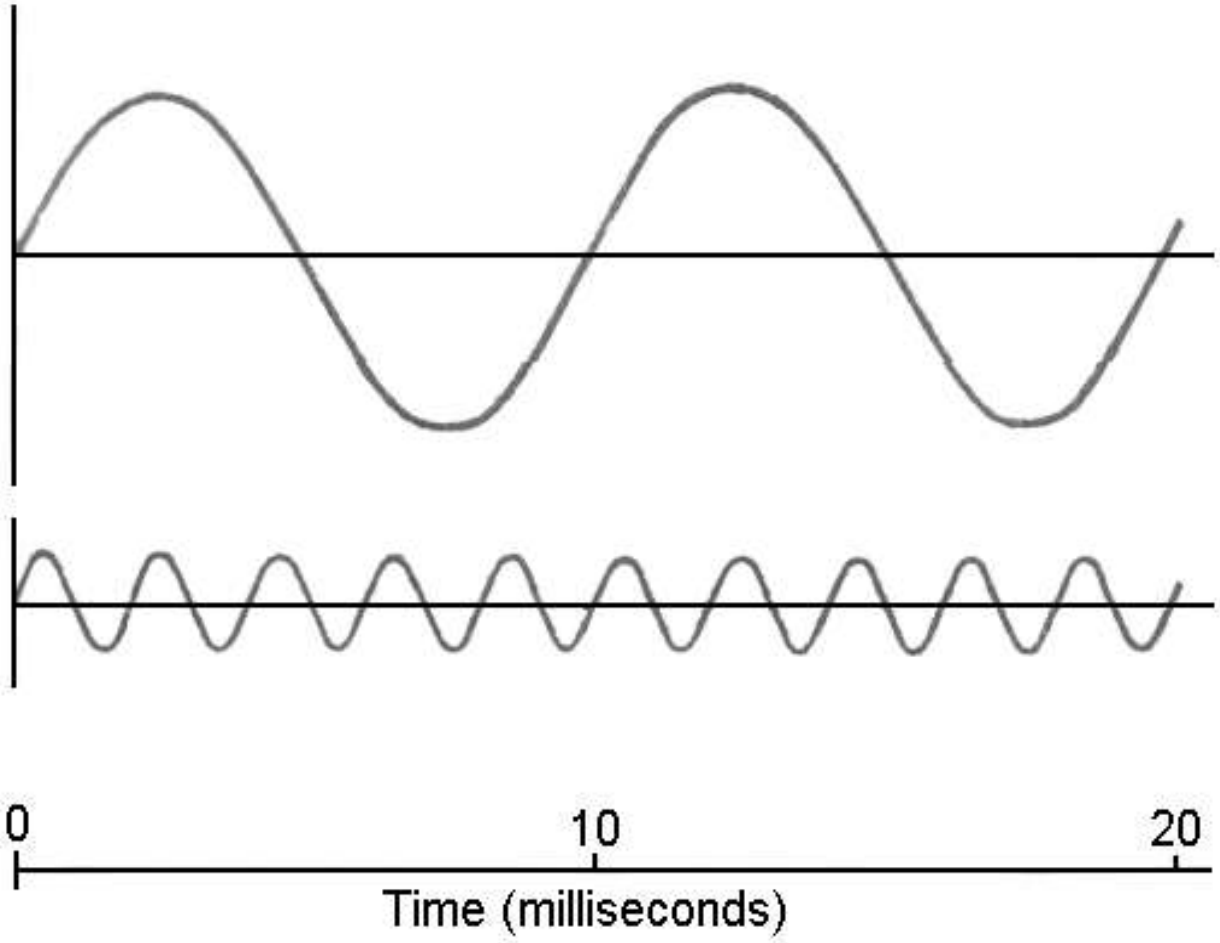
The **wavelength** is the distance…



between the crests or troughs of two consecutive transverse waves

from compression to compression or rarefaction to rarefaction in a compressional wave

Frequency is the number of wavelengths that pass a point in a given amount of time.



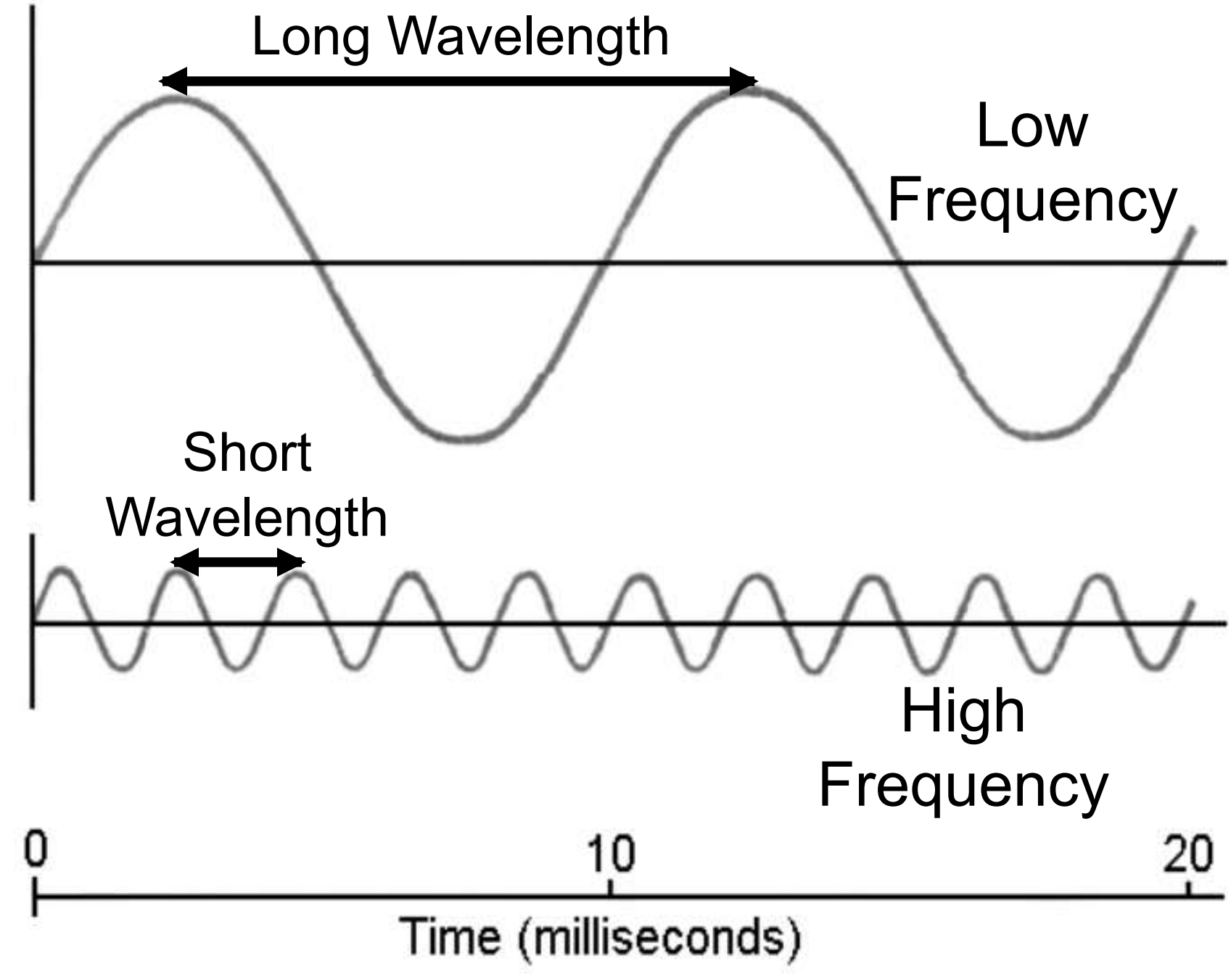
Low Frequency

High Frequency

Wavelength and Frequency are inversely related.

If a wave is traveling at the same speed, as the frequency of a wave increases, its wavelength decreases.

The same is true in reverse. As the wavelength of a wave increases, its frequency decreases.


Long Wavelength
Low
Frequency
Short
Wavelength
High
Frequency
0
10
20
Time (milliseconds)

Wavelength, Frequency, and Energy

Shorter Wavelength = Higher Frequency = More Energy

Longer Wavelength = Lower Frequency = Less Energy

Summarizing Strategy:

Complete the Changes in Properties of Waves: Sorting Activity