Name: Date: Block:

**4.1 - Properties of waves (pg. 135 - 138)**

A wave transfers **energy** , not **matter/material**\_ . The highest point of the wave is called a \_**crest**\_. The lowest point of the wave is called a \_**trough**\_\_. The wavelength measures the distance from \_**crest**\_\_ to \_\_**crest**\_ or from \_**trough**\_\_ to \_**trough**\_\_. The \_**amplitude**\_\_ is the height of the wave. It measures the wave from its \_**rest**\_ \_**position**\_ to the \_**crest**\_ or \_**trough**\_\_. \_**Frequency**\_\_ is equal to the number of wavelengths that pass a point in a certain amount of time. This is measured in \_**hertz**\_. If three wave crests pass a rock in 1 second, the waves are said to have a frequency of \_**3 hz**\_\_.

There are two types of waves, \_**transverse**\_\_\_ waves and \_\_**compression**\_\_ waves. In transverse waves, the matter moves in an \_\_**up**\_ and \_**down**\_\_ direction. This movement is \_**perpendicular**\_\_ to the direction the wave travels. Compression waves cause matter to move in a \_**back**\_\_ and \_**forth**\_\_ direction. This is in the \_**same**\_ direction the wave travels.

Sound waves are an example of \_**compression**\_\_\_ waves.

What are 2 types of waves that do NOT require a material to travel through?

**light**\_\_ waves and \_**radio**\_ waves.

1 a) 4 hz b) 0.1 hz c) 1 hz d) 0.9 hz e) 33.3 hz

2 -convert it into seconds