



Guided Practice

Name: _____ Date: _____

Vocabulary Chart

Complete the chart below.

Vocabulary Word	Definition	How am I going to remember it?
Wave		
Sound wave		
Medium		
Transmitted		
Absorbed		



Guided Practice

Have Wave; Will Travel! Who is Correct?

One hot summer day, your Mom tells you and your friends that you can have ice cream when the train comes through town. You and your friends decide to have a contest to see who will hear the train first. You decide to jump in the swimming pool and listen underwater because you think water will help you feel and hear the sound vibration quickest. Mary sits on a chair because she thinks that air is thinner and that the sound will travel faster through a thinner medium. Johnny puts his ear to the ground because he remembered from an old cowboys-and-Indians movie that Indians listened through the ground to hear the cowboys coming from a distance. Who will hear the train first? Explain why that person is correct.

- Hint:
- Draw a molecular particle drawing of the three states of matter.
 - Remember, sound waves travel by vibration from particle to particle.
 - Draw an arrow from one particle to the other. The size of the arrow represents the speed that the sound wave will travel!



Solid



Liquid



Gas



Guided Practice

Check Understanding

Directions: Fill in the blanks using the word bank below.

Word Bank

Reflected	Darker	Infrared	Electromagnetic	Ultraviolet
Wavelength	Waves	Temperature	Darker	Absorbed

Electromagnetic _____ affect materials in different ways. When _____ waves are _____ they are taken in by a material. Alternatively, when the waves are _____ they are scattered back in multiple directions. Shiny objects tend to scatter the electromagnetic waves, while _____ colored objects tend to absorb them. When waves encounter materials, a change in _____ can occur. The intensity, amount, and _____ of the electromagnetic wave determines how much the _____ of the material will increase. Not all waves in the spectrum cause a temperature change. _____ waves that are used with satellite imaging and television remotes will not cause a temperature change, while _____ waves from the sun will.

Directions: Answer the questions below using complete sentences.

1. Explain why a swimming pool deck can become too warm to stand on in the summertime.

2. A water bottle is sitting in front of a poster. The letters seen through the water bottle appear larger. Explain why this is true.
