Waves: Day 14 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Core: \_\_\_\_\_ Date: \_\_Monday, April 24th \_ 

A) In a longitudinal wave, the length of the compression.

B) The part of a longitudinal wave where the atoms/molecules are far apart.

C) The distance between compressions in a longitudinal wave.

D) The part of a longitudinal wave where the atoms/molecules are really close together.

E) How loud or soft a sound is, determined by the wave amplitude.

F) The high or low sound of a wave, determined by the wavelength.

 Vocabulary- Matching

1. \_\_\_Pitch
2. \_\_\_Compression
3. \_\_\_Rarefaction
4. \_\_\_Wavelength
5. \_\_\_Volume
6. \_\_\_Amplitude

 **NOTES**

* \_\_\_\_\_\_\_\_\_\_ is the high or low sound an object makes.

Objects that vibrate \_\_\_\_\_\_\_\_\_ make a low pitch.

Objects that vibrate quickly make a higher pitch.

Draw the waves:

The wave on the top has a higher \_\_\_\_\_\_\_\_ than the wave on the bottom because the wave on the top has a shorter \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or distance between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* \_\_\_\_\_\_\_\_\_\_\_ is the loudness or softness of a sound.
* \_\_\_\_\_\_\_\_\_\_ sounds have a lot of \_\_\_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_\_\_\_ sounds use a little \_\_\_\_\_\_\_\_\_\_\_\_\_.
* Example: The harder a drum is hit, the more the drum will \_\_\_\_\_\_\_\_\_\_\_\_. The more an object vibrates, the \_\_\_\_\_\_\_\_\_\_\_\_\_ the sound it makes.
* Draw the waves:
* The top wave has a higher \_\_\_\_\_\_\_\_\_\_\_\_\_, and thus, more volume.
* The bottom wave has a shorter \_\_\_\_\_\_\_\_\_\_\_\_\_, and thus, less \_\_\_\_\_\_\_\_\_\_\_\_\_.

*How does sound travel?*

* Sound waves pass through the \_\_\_\_\_\_\_\_\_\_\_ as \_\_\_\_\_\_\_\_\_\_\_\_ waves.
* When the vibrations are \_\_\_\_\_\_\_\_\_, you hear a \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_.

When they’re slow, you hear a \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.

**Activities!**

A) [Review] Go to DiscoveryEd and log in. Search “Science Lab: Sound” and fill in the guide sheet as you complete the activity.

B) [Practice] Go to DiscoveryEd and log in. Search “Pitch” and click on the *exploration* titled “Pitch.” Then, search “Volume” and click on the exploration titled “Volume.” Complete BOTH activities and the associated sheet.

C) [Challenge] With a partner, read the “Can Sound Kill You?” article. Then, create a T chart of ways that sound can be either good or bad.

Learning Check:

1. The high or low sound of a wave is determined by the wave’s:
	1. Amplitude b. Wave Height c. Wavelength d. Medium
2. If you measure the size of a wave’s compression, you are measuring:
	1. The amount of energy the wave has
	2. The amplitude of the wave
	3. Both a & b
	4. Neither a or b
3. Look at the diagram below. In order, what are letters A, B and C pointing to?

B

C



A

* 1. Compression, Rarefaction, Wavelength
	2. Rarefaction, Wavelength, Compression
	3. Wavelength, Rarefaction, Compression
	4. Wavelength, Compression, Rarefaction

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