

**Bill Nye- Waves**

Name \_\_\_\_\_ pd \_\_\_\_\_

Read over this sheet *before* viewing the video.

\_\_\_\_\_ 1. Energy travels in \_\_\_\_\_.

\_\_\_\_\_ 2. Waves carry \_\_\_\_\_.

3. List three examples of waves.

\_\_\_\_\_

\_\_\_\_\_ 4. The distance between the tops of two waves is the \_\_\_\_\_.

\_\_\_\_\_ 5. Waves that move *faster* have a \_\_\_\_\_ frequency.

\_\_\_\_\_ 6. In a low frequency wave, the waves are \_\_\_\_\_.

\_\_\_\_\_ 7. The wavelength depends on \_\_\_\_\_.

8. How can the wavelength be measured?

9. How can the amplitude be measured?

10. In what direction(s) do waves travel?

11. What 4 things do all waves have? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ 12. Different colors have different \_\_\_\_\_.

13. List three examples of *electromagnetic* waves.

\_\_\_\_\_

14. Describe the path the waves from a ham radio follow.

15. How does a surfer dude know what kinds of waves to expect?

16. In terms of waves, why shouldn't you build a house too close to the ocean?

17. Explain two ways that ocean waves can be created.
  
18. How can an earthquake be felt in different parts of the world?
  
19. How does the length of the column of air affect the sound of a musical instrument, the wavelength and the frequency.
  
20. Explain how sound waves travel through the air.
  
21. What happens to the slinky wave when it hits the barrier?
  
22. What is an example of this type of wave motion?
  
23. How does sonar produce an image? (Hint: ping/pong)
  
24. List two things that use sonar.

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