

SCA Science 5 – Study Guide

Chapter 9

Name: Key

I. Fill in the Blank: Write the correct answer in the blank

- vibration 1. A rapid back-and-forth movement is a ____.
- sound 2. A vibration that can be heard is a ____.
- wave 3. A disturbance that moves energy from place to place is a ____.
- air 4. Most of the sounds we hear travel through ____.
- solids 5. Sound waves can travel through ____, liquids, or ____.
- gases 6.

timbre	frequency	different	decibels	volume
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- decibels 7. The intensity of a sound is measured in ____.
- frequency 8. The pitch of a sound is related to its ____.
- different 9. Musical instruments can play at the same pitch and volume, but they sound ____ because of their timbre.
- volume 10. The loudness or softness of a sound is ____.
- timbre 11. The quality of a sound that distinguishes it from other sounds is ____.

music	noise	reflect	acoustics	echo
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- echo 12. A sound wave that bounces back toward its source and is heard again is called an ____.
- acoustics 13. The science of sound is known as ____.
- music 14. Some people develop theories about sound through the study of ____.
- reflect 15. Smooth, hard materials ____ sound waves.
- noise 16. A harsh, unwanted, or unexpected sound is often called a ____.

II. Multiple Choice: Write the letter of the correct answer in the blank.

- B 17. The ability that some animals have to "see" with sound is called ____.
- A. an echo B. echolocation C. acoustics
- A 18. Scientists can use ____ to help them locate things underwater.
- A. sonar B. ultrasounds C. acoustics
- B 19. Doctors can use ____ to help them see inside a person's body without doing surgery.
- A. sonar B. an ultrasound C. acoustics
- C 20. Rough, soft, or fuzzy materials will ____ sound waves.
- A. reflect B. echo C. absorb

A 21. You would most likely hear echos in a room with ____ walls.

(A) smooth

B. rough

C. fuzzy

III. True – False: Write “T” for True or “F” for False.

T 22. Sound waves are mechanical waves.

F 23. Sound waves move the slowest through solids

T 24. The number of sound waves that pass a point in one second is a frequency

F 25. Sound waves travel in all directions toward the source of sound.

T 26. Most of the sounds we hear are a blend of several waves.

T 27. Too many large, loud vibrations can damage the human ear and cause ear pain.

F 28. A slowly vibrating object will have a high pitch.

T 29. Pitch is how high or low a sound is.

T 30. As the intensity of a sound increases, the volume also increases.