

SECTION 3

Reinforcement

Music

CHAPTER 10.3 REVIEW

Directions: Combine the word parts below to form the answers to the clues below. Work carefully. A space has been left between each word part to help you. Place one letter on each blank, and be sure the number of letters in each word part matches the number of blanks. Cross out each word part as you use it. The first definition has been started for you to use as an example.

and	cy	men	-o-	quen	strings	ty
beat	da	mu	o	-res-	tal	ver
bra	fre	na	o	res	tion	vi
brass	fun	nance	per	sic	tones	winds
cus	li	noise	qua	sion	tor	wood

- effect produced when a musical instrument vibrates r e s o
- rely on vibration of air to make music (3 words)

- rise and fall in sound intensity _____
- causes music and noise _____
- sound that has random patterns and pitches _____
- describes the difference between two sounds having the same pitch and loudness _____
- violins, guitars, and harps _____
- main tone produced when an entire string vibrates up and down (2 words)

- sounds that deliberately follow a regular pattern _____
- drums and xylophone _____
- produced by vibrations that are multiples of the fundamental frequency _____
- hollow chamber that amplifies sound when the air in it vibrates _____



Sound

I. Testing Concepts

Directions: Fill in the blanks to complete the sentences.

1. Sound travels faster through _____ and liquids than through _____ because the individual molecules are _____ together.
2. When you turn down the volume on the television, you reduce the _____ carried by the sound waves, so you also reduce their _____.
3. Sounds above _____ dB may cause pain and permanent hearing loss.
4. As the frequency of a sound wave decreases, the pitch becomes _____.
5. When two instruments play at the same time, the sound waves produced by each instrument _____.
6. Sound frequencies are measured in _____.

Directions: Determine whether the statements below are **true** or **false**. If a statement is false, change the underlined term to make it true.

- _____ 7. The distance to an object can be calculated by measuring how much time passes between emitting the sound pulse and receiving the reflected signal.

- _____ 8. Sustained sounds above 50 dB can cause permanent hearing loss.

- _____ 9. Each string on a guitar has a different set of natural frequencies.

- _____ 10. An instrument vibrates at many different frequencies at once, causing you to hear multiple notes.

Chapter Test A (continued)**II. Understanding Concepts****Skill: Sequencing**

Directions: *Number the sentences in order to show how sonar can be used to locate objects underwater.*

- _____ 1. The distance to the object is calculated by measuring how much time passes between emitting the sound pulse and receiving the reflected signal.
- _____ 2. A sound pulse is emitted toward the bottom of the ocean.
- _____ 3. A sensitive underwater microphone picks up the reflected signal.
- _____ 4. The sound travels through the water and is reflected when it hits something solid.

Skill: Categorizing

Directions: *Write an X next to each use of sound waves.*

- _____ 5. remove dirt from jewelry
- _____ 6. give images of a fetus
- _____ 7. tell astronauts the distance to an asteroid
- _____ 8. map the surface of the ocean floor
- _____ 9. break kidney stones into small pieces
- _____ 10. locate schools of fish

Directions: *Categorize each instrument as a percussion, wind, or string instrument.*

- _____ 11. electric guitar
- _____ 12. flute
- _____ 13. cymbal
- _____ 14. harp
- _____ 15. kettle drum
- _____ 16. trumpet

Skill: Interpreting Scientific Illustrations

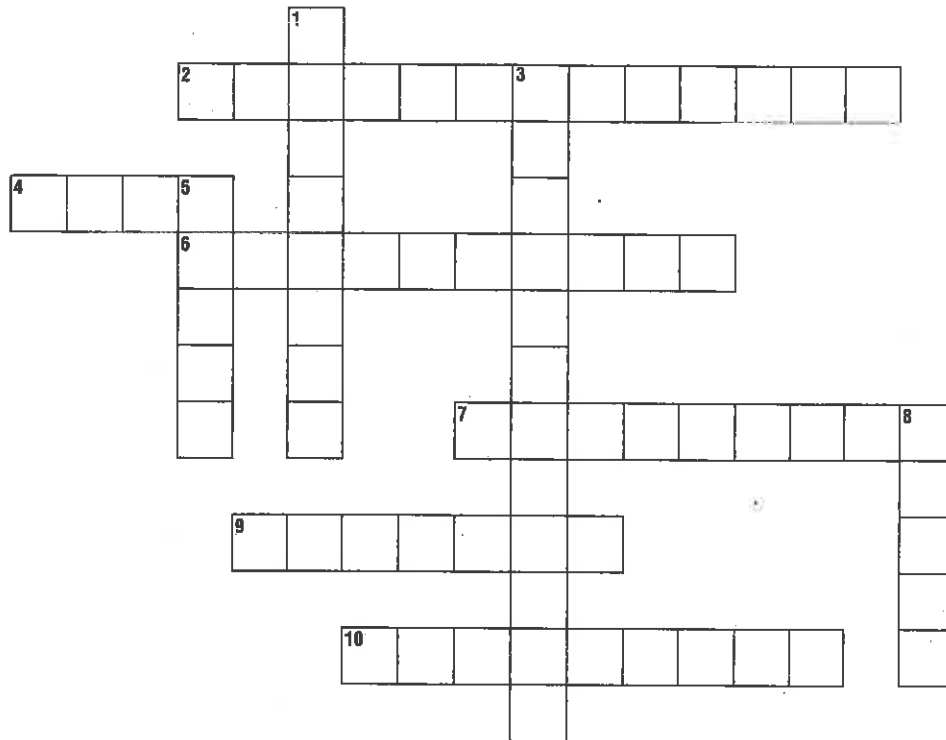
Directions: *Write the answer in the space provided.*

17. You see a diagram of waves with tight, dense compression. Describe the type of sound associated with these waves.

18. You see a diagram of high-frequency sound waves with close compressions and rarefactions. Describe the pitch.



Directions: Use the clues below to complete the crossword puzzle.



Across

2. Echoing effect produced by many reflections of sound
4. A kind of percussion instrument
6. Sometimes used to examine parts of the body
7. The study of sound
9. Describes the differences among sounds of the same pitch and loudness
10. A hollow chamber filled with air that amplifies sound when its air vibrates

Down

1. A vibration whose frequency is a multiple of the fundamental frequency
3. The process of locating objects by emitting sounds and interpreting the sound waves that are reflected back
5. Created when specific pitches and sound qualities are used deliberately in a set pattern
8. System that uses the reflection of underwater sound waves to detect objects.