

Sound Waves  
Formative Assessment

Name \_\_\_\_\_  
Date \_\_\_\_\_ Block \_\_\_\_\_

*Answer completely in the space provided. You may do any work on the back.*

1. In what state of matter do sound waves generally travel at the fastest speeds?
2. The speed of sound in air is faster when the temperature is \_\_\_\_\_.
3. Sound is a \_\_\_\_\_ wave caused by vibrations of matter.
4. **True or False:** Sound waves can travel from the earth to the moon.
5. What is the pitch of a sound wave that has a wavelength of 0.75 m? It is a warm day and sound travels at about 350 m/s.
6. You are listening to music on the radio but it is hard to hear, so you turn up the volume. What part of the sound wave changes?
7. Interference of sound waves of different pitches is observed as an alternating loud and soft sound known as \_\_\_\_\_.
8. What is the beat frequency you will hear due to the vibration of two tuning forks, one with a frequency of 320 Hz and the other a frequency of 345 Hz?
9. The Doppler Effect results in the increase of the \_\_\_\_\_ of a sound wave as its source approaches you.
10. An echo occurs when sound waves \_\_\_\_\_ off of a surface.
11. A tuning fork with a natural frequency of 200 Hz will resonate due to a sound wave with a frequency of \_\_\_\_\_.
12. Waves diffract the most when their wavelengths are \_\_\_\_\_ than the opening they are passing through.

Circle the questions you answered incorrectly. Remove this strip and turn in to your teacher.

C12

<u>Sound</u>		<u>Waves Phenom</u>	
1	4	7	10
2	5	8	11
3	6	9	12

Name: