Classroom Noise Meter

Name: _____

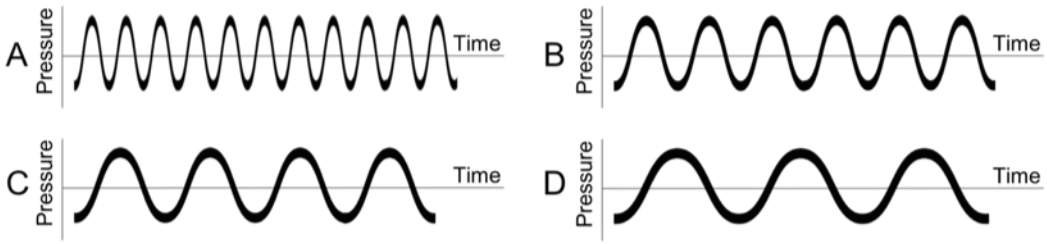
Student quiz

Date: _____

Word Bank *(when appropriate, use these words in your short answers)*		
• Amplitude	• Sound intensity	• Vibrations
• Frequency	• Sound volume	• Vocal cords
• Pitch	• Sound wave	

1. Explain in your own words how we can generate sounds with our voice. Where relevant, use the terms from the Word Bank above.

2. The figure below shows a representation of four different sound waves. Which of these sound waves generates the sound with the highest pitch (frequency)?



   a. Sound wave A
   b. Sound wave B
   c. Sound wave C
   d. Sound wave D

Classroom Sound Meter—Page 2

Name: _____

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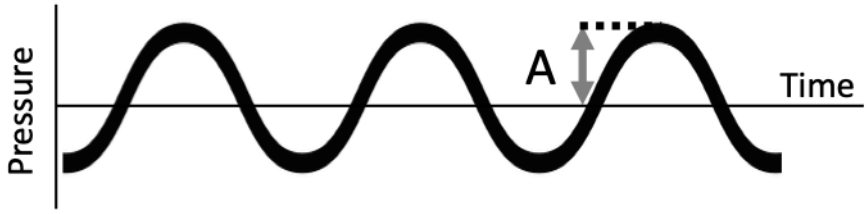
Directions: Complete the questions below, as described.

3. Waves have different properties. Which wave characteristic is represented by "A" in the diagram shown below?



   a. Wavelength
   b. Wave frequency
   c. Wave amplitude
   d. Wave speed

4. How does the amplitude of a sound wave correlate to the sound we hear?

   a. the higher the amplitude, the louder the sound we hear
   b. the lower the amplitude, the louder the sound we hear
   c. the higher the amplitude, the higher the pitch of the sound we hear
   d. the lower the amplitude, the higher the pitch of the sound we hear

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Name: _____

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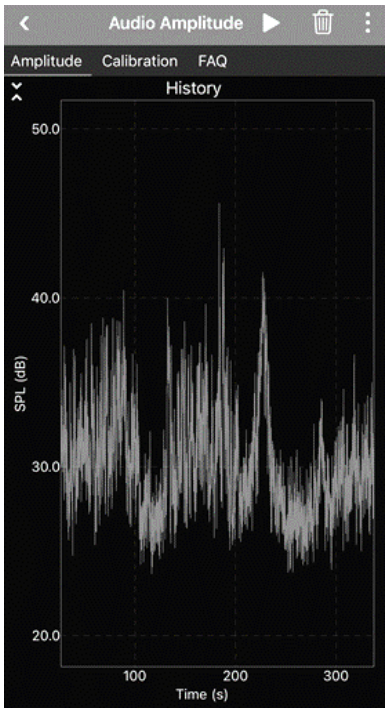
Directions: Complete the question below, as described.

5. The graph below shows data recorded with the phyphox app during one of the five classroom scenarios (background noise, one speaker, independent work, discussion in pairs, group discussion). Based on your results from your investigations, which of the following scenarios do you think was recorded in the graph below? Explain your reasoning below.



a. Group discussion
b. One speaker
c. Background noise
d. Discussion in pairs