

Max's Musical Pitch Challenge

Learning objective: To identify, compare, and describe variations in pitch and explain how sound is produced through vibrations.

Join Max the monkey as he explores the jungle of sound! Read the questions carefully and decide whether the pitch is high or low, or how the vibrations change.

Answer Key: 1. A (High), 2. False, 3. Low, 4. B (Short/Tight), 5. True, 6. Vibration, 7. B (The sound becomes higher), 8. True, 9. Frequency, 10. True.

Word bank: Pitch · Vibration · Frequency · High · Low · Volume · Instrument · Soundwave

1. 1. If a bird sings a very sharp, squeaky note, is the pitch: A) High*, B) Low, C) Silent, D) Muffled? (1 mark)

2. 2. True or False: A drum produces a higher pitch than a tiny silver whistle. (1 mark)

3. 3. When you pluck a very long, thick guitar string, does it produce a high or a low pitch? (1 mark)

4. 4. Which string produces the highest pitch on a violin? A) The thickest string, B) The thinnest string*, C) The middle string, D) They all sound the same. (1 mark)

5. 5. True or False: Sound is created by vibrations. (1 mark)

6. 6. What is the name of the 'wobble' that creates sound when an object moves back and forth very quickly? (1 mark)

7. 7. If you tighten a drum skin, what happens to the pitch? A) It gets lower, B) It gets higher*, C) It stays the same, D) It stops making sound. (1 mark)

8. 8. True or False: A fast vibration creates a high pitch. (1 mark)

9. 9. What scientific word describes the number of vibrations per second? (1 mark)

10. 10. True or False: Pitch refers to how high or low a sound is, not how loud it is. (1 mark)

Draw: Draw two musical instruments: one that makes a very low sound (like a giant tuba) and one that makes a very high sound (like a tiny bell). Use arrows to show the direction of the sound waves.



Extension challenge: 1. Explain why a flute produces a different pitch when you cover different holes. 2. Compare and contrast how a xylophone bar and a drum skin create different pitches. 3. Justify your answer: If you were building a homemade instrument using elastic bands, how would you change the pitch? 4. What might happen if you played a string instrument underwater? 5. Why do you think larger animals often have lower-pitched voices than smaller ones? 6. Design an experiment to test which household objects produce the highest pitch when struck. Write down your prediction before you test it.