

Max's Musical Pitch Challenge

Learning objective: To understand and identify how pitch changes depending on the size, length, and tension of an instrument.

Max the monkey is helping his friends build a band! He needs your help to sort these musical scenarios. Look at the word bank and decide whether the sound produced will be a HIGH pitch or a LOW pitch. Explain your reasoning for each choice using what you know about vibration and length.

Word bank: High pitch · Low pitch · Short · Long · Tight · Loose · Fast vibration · Slow vibration

1. Zara is playing a very long, thick string on a cello. Will the pitch be high or low? Explain why. (2 marks)

2. Bea the honeybee is playing a tiny, short metal triangle. Will the pitch be high or low? Explain why. (2 marks)

3. Kit tightens a guitar string. Does the pitch get higher or lower? What happens to the speed of the vibration? (2 marks)

4. If you blow air into a short glass bottle versus a tall glass bottle, which one creates a higher sound? (2 marks)

5. Imagine a drum. If you hit a very large, wide drum, would it make a deep or a squeaky sound? Why? (2 marks)

Draw: Draw two different musical instruments: one that makes a very high sound and one that makes a very low sound. Label the part of the instrument that vibrates to make the sound.



Extension challenge: Design your own 'junk orchestra' instrument using household items. Write a paragraph explaining how you could change the pitch of your instrument by altering the length or tension of the materials you use.