

## Class 4 Music Assessment: The Orchestra and Beyond

*Learning objective: To identify, classify, and analyse the characteristics of instruments within the four main families: Strings, Woodwind, Brass, and Percussion.*

Read each question carefully. Use your musical vocabulary to explain your reasoning. Ensure your answers are clear and written in full sentences where required.

Max the monkey is organising a jungle concert. He has gathered a cello, a flute, a snare drum, and a trumpet. He needs to understand how each instrument produces a sound and how to arrange them so the audience can hear the differences in their unique tone colours.

*Word bank: vibration · pitch · timbre · resonance · percussion · woodwind · string · brass · acoustic · dynamic*

**1. Name the four main instrument families and give one example of an instrument found in each. (4 marks)**

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**2. Explain the physical process of how a string instrument, such as a violin, produces a sound when played. (2 marks)**

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**3. Compare and contrast the way a flute (woodwind) and a trumpet (brass) produce sound. Why are they in different families despite both using air? (3 marks)**

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**4. If Max wants to change the pitch of a percussion instrument like a timpani drum, what must he do to the skin of the drum? Justify your answer using scientific terminology. (3 marks)**

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5. Nova the owl is listening to a piece of music. She says, 'The trumpet sounds metallic and bright, while the cello sounds warm and deep.' Explain why these two instruments have different 'timbre' even when playing the exact same note. (3 marks)

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6. Imagine you are designing a brand-new instrument made from recycled materials found in a classroom. Describe your instrument, name the family it belongs to, and explain how a musician would create a high-pitched sound versus a low-pitched sound on it. (5 marks)

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7. If a composer wanted to create a feeling of tension and mystery in a story, which instrument family would you suggest they use most prominently and why? (5 marks)

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**Draw:** Draw a diagram of an instrument of your choice. Label the part that vibrates to create the sound and the part that helps to amplify or change the pitch.



*Extension challenge: Total: /25. Challenge: Research how the size of an instrument relates to the pitch it produces. Write a short paragraph explaining the 'Rule of Size' in acoustics.*