

The Symphony of Sounds: Exploring Musical Families

Learning objective: To identify, classify, and analyse the characteristics of the four main orchestral instrument families: strings, woodwind, brass, and percussion.

Read each question carefully and use your knowledge of instrument families to provide detailed, reasoned answers. Ensure you use appropriate musical terminology.

Max the monkey is currently organising an orchestra, but he needs your help to classify his collection of instruments based on how they produce sound and their unique tonal qualities.

Word bank: vibration · resonance · pitch · percussion · woodwind · embouchure · timbre · orchestra

1. Max has a flute and a trumpet. Explain why these two instruments belong to different families, even though both require the player to blow air into them. Consider the material of the instruments and how the sound is produced. (3 marks)

2. If a violinist wants to change the pitch of their note, they must press the string against the fingerboard. Describe what happens to the length of the string and the resulting sound when they do this. (2 marks)

3. Compare and contrast a drum (percussion) and a cello (string). How does the method of sound production differ between these two instruments? (3 marks)

4. Justify why a piano is sometimes classified as a percussion instrument, despite having many strings inside its wooden frame. (2 marks)

5. What might happen to the timbre of a brass instrument if the player changed the shape of their lips or the tension of their breath? Explain the scientific principle behind this. (2 marks)

Draw: Draw your own 'invented' instrument. Label it with its name, which family it belongs to (e.g., strings, woodwind, brass, percussion), and explain one feature that helps it create a unique sound.



Extension challenge: Imagine you are composing a piece of music to represent a stormy day at sea. Choose three instruments from different families and explain how you would use their specific timbres to represent the thunder, the rain, and the crashing waves. Justify your choices using musical vocabulary.