

Melody Makers: The Science of Singing

Learning objective: To understand the vocal anatomy, techniques, and terminology used in choral and solo singing.

Join Max the monkey and Zara the zebra as they explore the wonderful world of singing! Read the questions carefully and test your musical knowledge.

Answer Key: 1.C, 2.True, 3.False, 4.Pitch, 5.B, 6.Diaphragm, 7.A, 8.True, 9.Posture, 10.B. Explanation: Singing relies on breath control from the diaphragm and the vibration of the vocal cords to create sound. Understanding pitch and dynamics helps us convey emotion in music.

Word bank: Diaphragm · Pitch · Posture · Vocal cords · Dynamics · Tempo · Unison · Harmony

1. What are the small folds in your throat that vibrate to create sound? A) Lungs B) Ribs C) Vocal cords* D) Teeth (1 mark)

2. True or False: Standing with good posture helps you to breathe more deeply while singing. (1 mark)

3. True or False: Singing 'forte' means to sing as quietly as a mouse. (1 mark)

4. What do we call the highness or lowness of a musical note? (1 mark)

5. When everyone in a choir sings the exact same melody at the same time, it is called: A) Harmony B) Unison* C) Solo D) Staccato (1 mark)

6. Which powerful muscle located below your lungs helps support your breath while singing? (1 mark)

7. What does the musical term 'tempo' refer to? A) The speed of the music* B) The loudness of the music C) The singer's costume D) The length of the song (1 mark)

8. True or False: 'Harmony' occurs when two or more different notes are sung at the same time to create a pleasing sound. (1 mark)

9. What do we call the patterns of long and short sounds in music? (1 mark)

10. If a composer writes 'piano' on the music sheet, they want you to sing: A) Very loudly B) Softly and gently* C) Very quickly D) With no sound (1 mark)

Draw: Draw a picture of Max the monkey and Zara the zebra performing in a choir. Include musical notes floating in the air around them to show the different pitches they are singing.



Extension challenge: 1. Explain why a singer might need to warm up their voice before a performance. 2. Compare and contrast singing in a large choir versus singing a solo; which do you think is more challenging and why? 3. Justify your answer: Does the size of a person's chest affect how long they can hold a note? 4. What might happen to the sound of a song if the singer forgot to use their diaphragm? 5. If you were writing a song about nature, how would you use 'dynamics' to represent a thunderstorm? 6. Design your own set of 'vocal exercises' for a friend and describe how each one helps the voice.