

The Science of Sound: Visualising Your Voice

Learning objective: To understand how the human body produces sound and to identify the anatomical components involved in singing.

Use the diagram below to label the key parts of the human body that work together to create music. Think about how air travels through the system to produce a pitch.

Draw: Draw a large, clear silhouette of a person standing in an upright, confident posture. Inside the silhouette, sketch the path of air starting from the lungs at the base, moving up through the chest to the throat, and finally out through the mouth. Use arrows to show the direction of airflow. Use a bright colour to highlight the larynx area, and draw 'sound waves' vibrating out from the mouth to show the music being created.



Label words: Diaphragm · Lungs · Trachea · Larynx (Voice Box) · Vocal Folds · Pharynx · Oral Cavity · Posture

Steps:

1. Label the diagram of the vocal system using the words provided in the word bank.
2. Explain why good posture is essential for a singer when they are trying to sustain a long, powerful note.
3. Compare and contrast the role of the lungs with the role of the vocal folds during the process of singing.
4. Justify why changing the shape of your oral cavity (your mouth) changes the tone or 'colour' of the sound

you produce.

5. What might happen to a singer's pitch if their diaphragm became weak or tense? Explain your reasoning.
6. If you were to design a musical instrument that mimics the human vocal system, which materials would you choose to represent the vocal folds? Why?