How do we hear different sounds, and what affects their volume and pitch?

Key knowledge (Fab 5) Models and Images to support learning Vocabulary (BIG 6) • A sound produces vibrations Volume Vibration which travel through a medium The volume (loudness) of a sound depends on the size of A quick movement back and the vibration. from a source to our ears. forth. Vibrations cause little bones inside our ears to vibrate Sound wave Amplitude Vibrations travelling from a allowing us to hear the sound. Quieter Louder sound source. • Different mediums, such as The further away we are from a sound source, the fainter it solids, liquids and gases, can will be. Medium carry sound but sound cannot The closer we are to a sound source, the louder it will be. Any material that sound travel through a vacuum. waves can travel through. • The volume of a sound depends on the strength of Vacuum vibrations which decreases as A train in the distance A train arriving at the A place with no air. they travel. sounds quiet. station sounds loud. A high sound has a high pitch Pitch and a low sound has a low Volume A high pitch sound is made because it has a high frequency. The loudness of a sound. pitch. The sound is affected by The sound source vibrates many times a second. the features of the objects producing the sound. Usually, Pitch smaller objects produce higher How high or low a sound is.

Lower pitch

Higher pitch

pitched sounds.