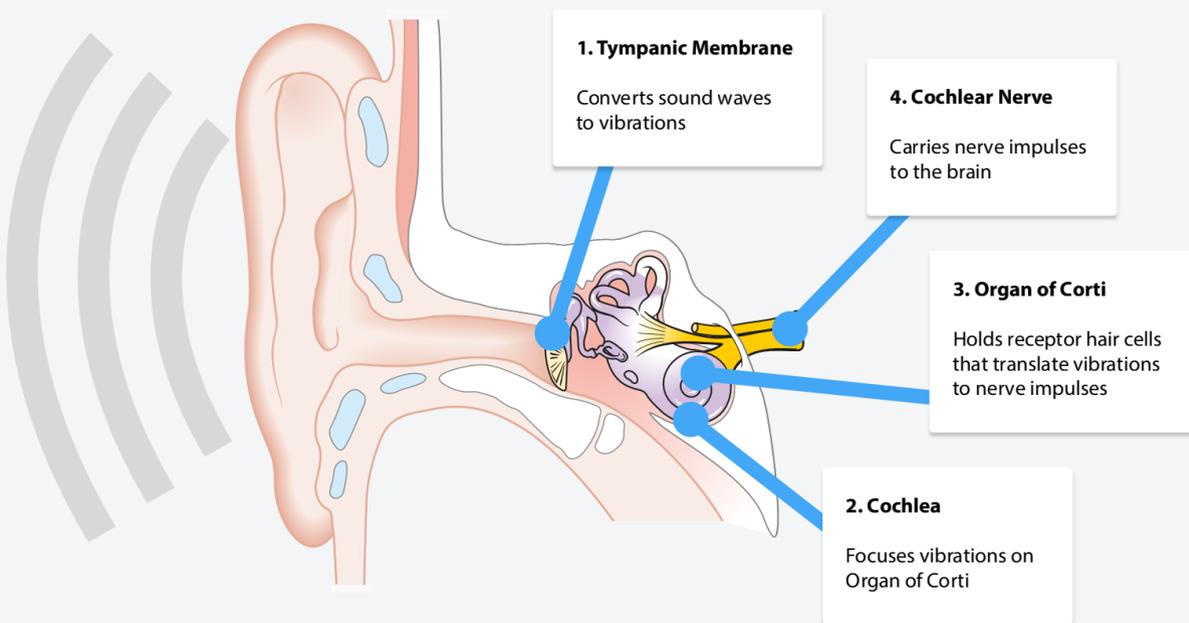


HOW THE BRAIN TURNS *Sound* INTO EMOTION & MEANING

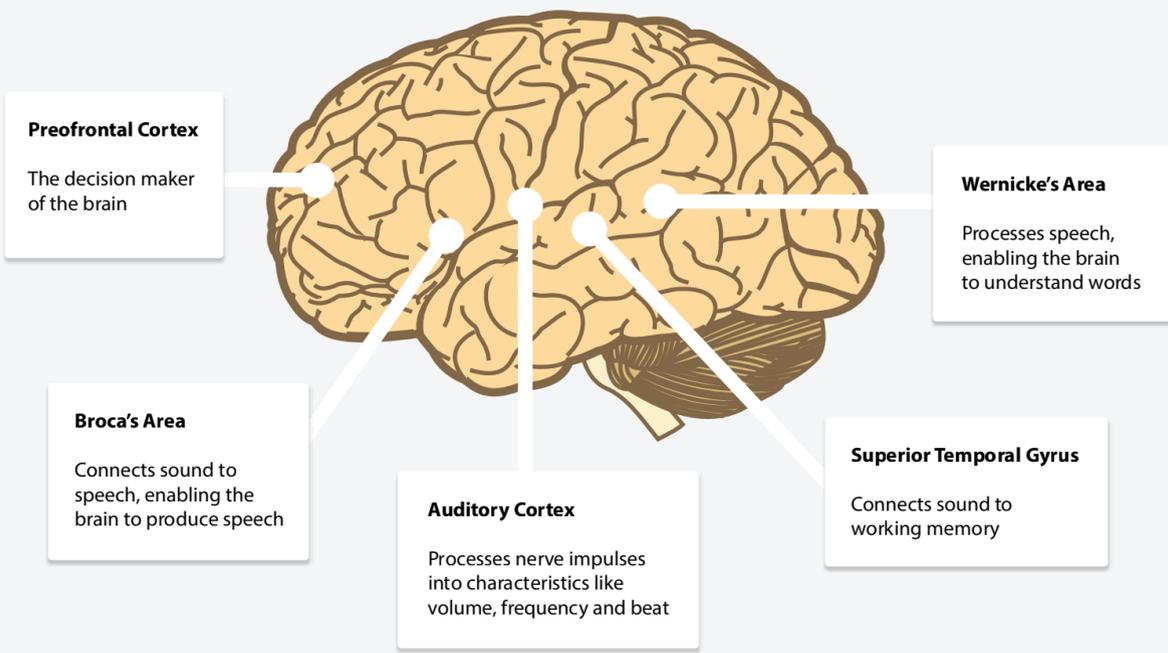
Music has phenomenal impact on our brains. While it may seem like a part of everyday living, once it enters our brains, audio is processed by fantastically complex pathways and structures to create speech and music. These elicit a vast spectrum of emotional reactions. Understanding these pathways can help marketers use audio more effectively.

WHERE IT BEGINS SOUND ENTERS THE BRAIN



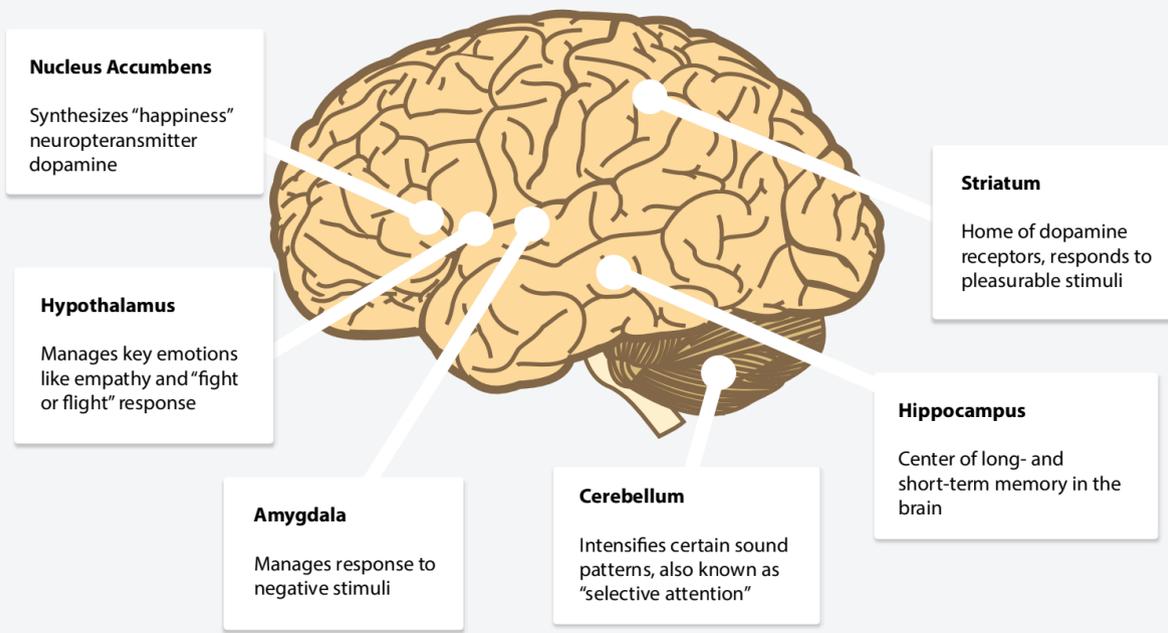
Sound waves hit the ear's tympanic membrane and are converted to vibrations. These vibrations produce pressure waves inside the ear. The pressure waves get funneled through the inner ear to the cochlea, a hollow chamber of bone that focuses the pressure waves onto a thin membrane called the Organ of Corti. Tiny hair cells sit on the membrane, and the pressure waves cause these hair cells to release neurotransmitters. The neurotransmitters in turn send electrical impulses along the cochlear nerve to the auditory cortex.

GIVING SOUND MEANING THE AUDITORY CORTICES



The auditory cortex is the gateway of the listening process. It's responsible for the processing of these basic audio impulses into meaningful insights for the brain. Neurons in the core of the cortex respond to different types of frequencies, pitches and volumes, while cells in the outer regions process intricate factors such as melody and beat.

MEMORY & EMOTIONAL RESPONSE



While all sound passes through the auditory cortices, some structures are only involved in specific functions.