

Edison's Ear

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Did you know that Thomas Edison would clamp his teeth down on the wooden table on which his phonograph was placed to hear his music more clearly? He utilized his skull's ability to transmit sound waves to activate his auditory nerve. This was his start to thinking about hearing aids and the basic idea for cochlear implants. This activity will introduce students to the conductivity of their own skulls. Using different types of wood and a transistor radio, students are able to replicate Thomas Edison's experience with wood and sound. A variety of woods and cardboard will be available to test this amplification process. Students will place their chosen test substance over the speaker of a playing transistor radio and clamp down with their teeth on the end of the test substance. Sound waves should travel down the test substance and transfer into their skull allowing students to hear the radio in a different way. The quality of the sound will differ with the types and dimensions of the wood and cardboard used. Students can experiment with a variety of woods of different densities and lengths and/or different sources of sound.

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