

# ECHO



The repetition of sound due to reflection from a distant surface is called ECHO.



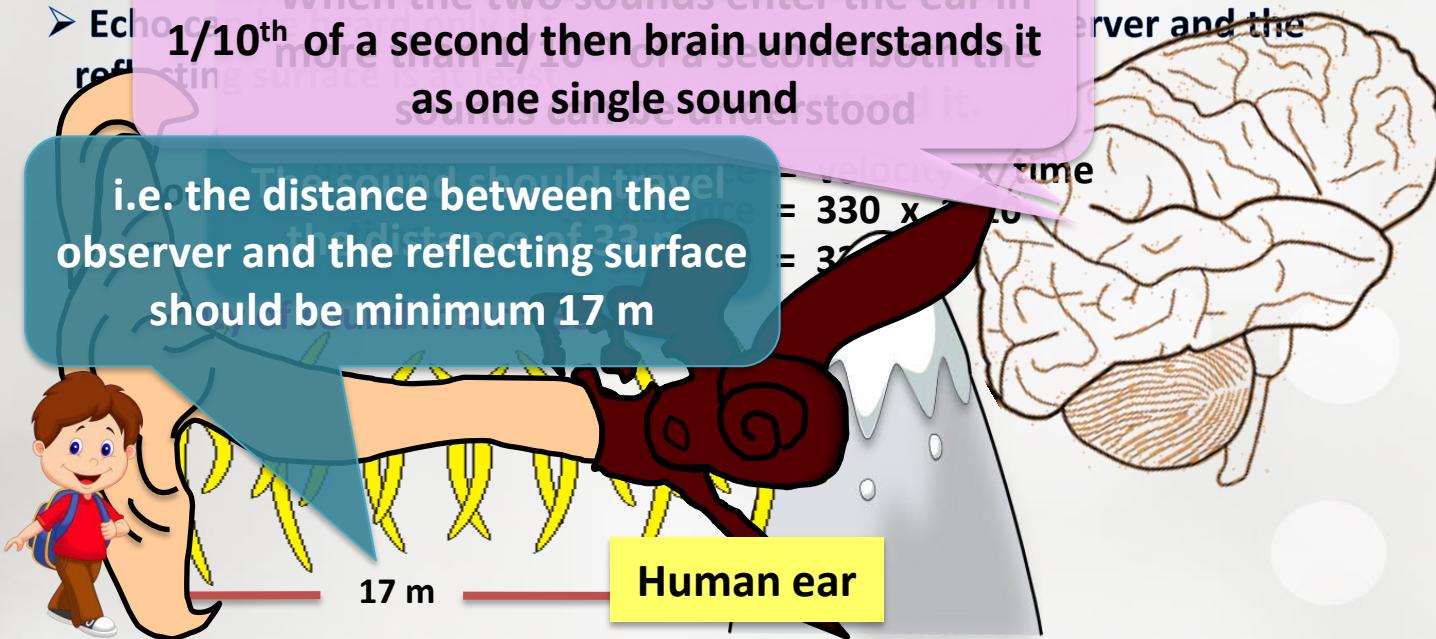
## Conditions required to hear reflected sound clearly

- The human ear can distinguish between two sounds only if there is a time difference of at least  $1/10^{\text{th}}$  of a second.

When two sounds enter the ear within

- Echo can be heard when the two sounds enter the ear within  $1/10^{\text{th}}$  of a second then brain understands it reflecting surface as one single sound

i.e. the distance between the observer and the reflecting surface should be minimum 17 m





Are the sounds coming from  
a construction site pleasing ?

N  
O



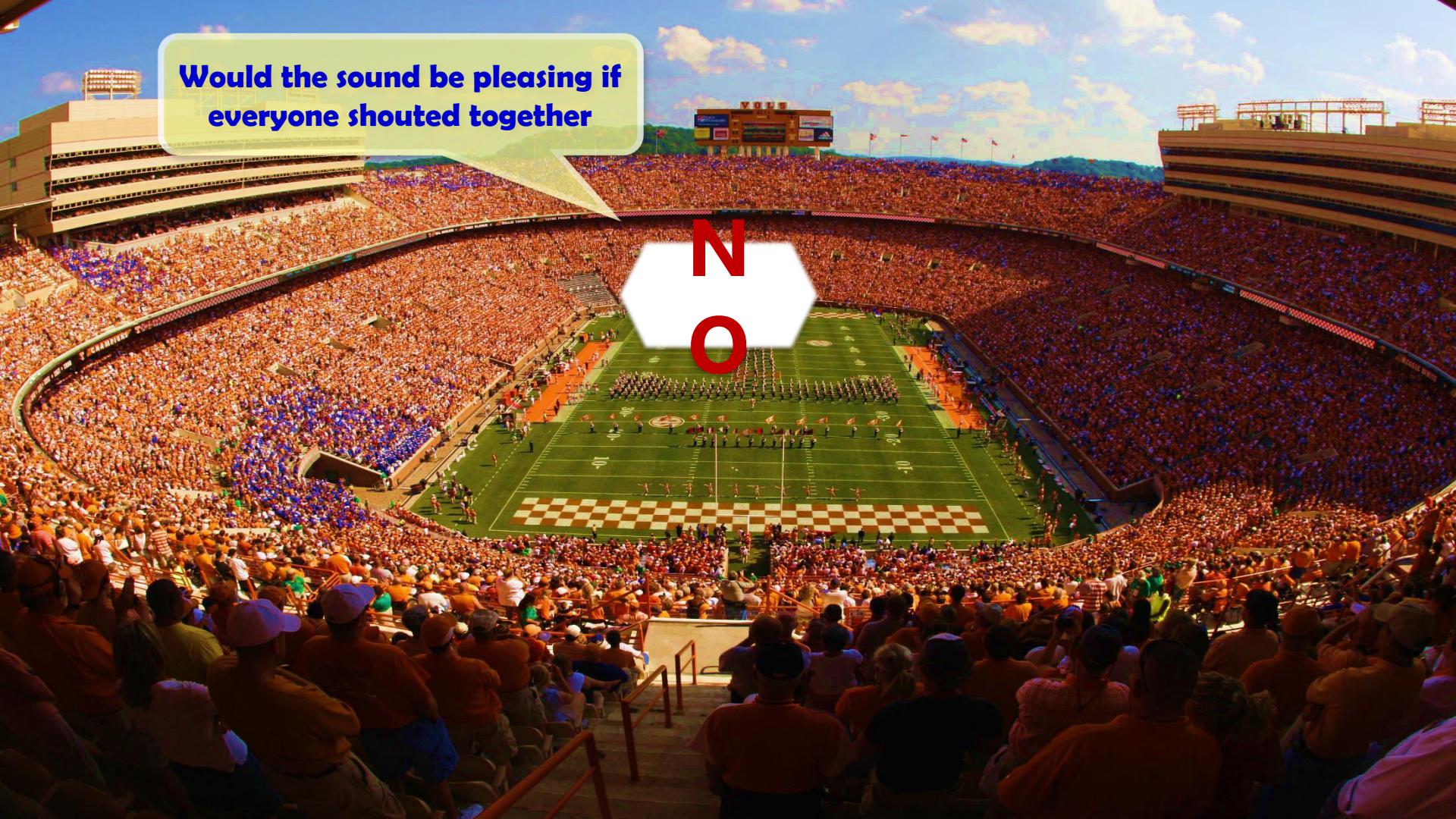


**Workers at construction  
sites wear Ear muffs**



**Do you enjoy the sound  
of a vehicle's horn ?**

**N  
O**



Would the sound be pleasing if everyone shouted together

NO



**NOISE** is a sound produced by irregular or non-periodic vibrations.

A photograph of a person's hands playing a black grand piano. The hands are positioned on the keys, with fingers pressing down. The piano has a dark wood finish and white and black keys.

Is the sound from a piano  
pleasing to hear ?

**YES**



**YES**

**Is the sound of a guitar  
pleasing ?**



Is the sound of  
a tabla pleasing ?

YES



MUSIC is SOUND ~~seen or produced by~~  
~~regular or periodic vibrations.~~

Presence of excessive or unwanted sounds in the environment is called **NOISE POLLUTION**



Explosions



Vehicle Noise



Speakers



TV high volume



**Hearing impairment**





**Plant trees around residential buildings**

# Thank You