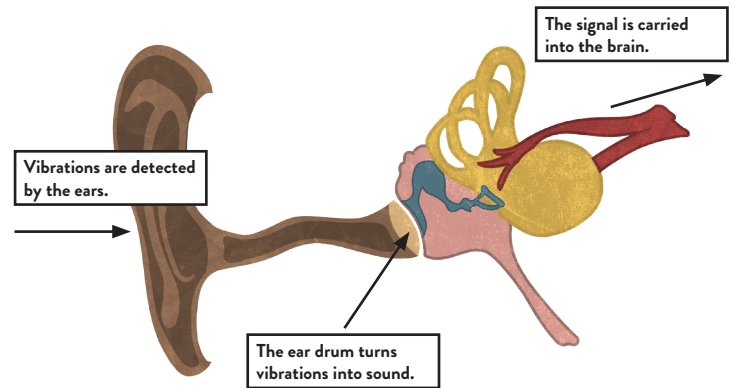


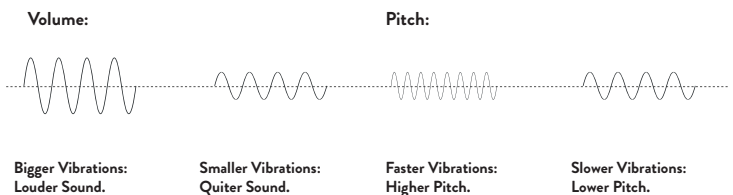
KEY FACTS

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- Sounds are made when an object moves, causing the molecules in the air around it to vibrate.
- The vibrations travel through air and are detected by our ears.
- Within the ear is an ear drum which vibrates and turns the vibrations into signals to the brain, which then 'hears' the sounds.
- The speed of sound in air is approximately 340 m/s (metres per second).
- The denser the medium, the faster sound travels: for example, it travels faster through liquids than air, and even faster through solids.
- Sound does not travel through a vacuum, because sound needs particles to make the vibrations. No-one can hear anything in space.
- The volume of a sound is how loud or quiet it is. If a drum is hit hard, it vibrates more and the sound is therefore louder. If a drum is hit softly, there are fewer vibrations so the sound is quieter.
- The soundwaves of a loud sound are taller than those of a quiet sound.
- The pitch of a sound is higher if the vibrations that produce it are faster – if they have a higher frequency.

HOW SOUND WAVES TURN INTO SOUND



TYPES OF SOUND WAVE



WORKING SCIENTIFICALLY



COLLECTING, RECORDING AND INTERPRETING DATA



TESTING/EXPERIMENTING



MEASURING



PREDICTIONS AND CONCLUSIONS

KEY VOCABULARY



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- Dense:** tightly packed with matter
- Eardrum:** the part of the ear that vibrates when hit by a soundwave
- Larynx:** the voice box
- Medium:** a substance through which a force or effect can travel
- Molecule:** the smallest unit of a material
- Pitch:** the frequency or number of vibrations; how high or low a note is
- Vacuum:** a space with no matter
- Vibrate:** to move back and forth very quickly
- Vibration:** a fast movement of back and forth
- Volume:** how loud a sound is

SIGNIFICANT PEOPLE



Evelyn Glennie is a hearing-impaired world-famous percussionist and drummer.

Ludwig van Beethoven was an Austrian composer. He started to lose his hearing around the age of 28 but continued to write some of the world's greatest music.

