Vestibular

Vestibular- Means good balance

Depending on how we move our head (rotation/direction/speed), specialised cells send signals to our brain – which then 'informs' our body's reaction.

Example) As a child wobbles on one leg to get dressed, their vestibular system detects head movements, sending signals to the brain, which after processing, sends signals to the body, telling it how to respond & stay balanced.

If a child's vestibular system is not working well, they may appear clumsy.

The vestibular system can be also likened to the 'volume control button' for the body, as quick up/down or spinning head movements tend to 'wake us up' BUT slower rocking head movements, or keeping the head still, helps us to calm down.

SENSORY MINIS - VESTIBULAR - YouTube

Sounds Can Move In Different Mediums

Sound waves can travel through different substances/mediums. They can travel through gases (like air), through liquids(like water) and through solids (like wood). How fast we can hear the sounds depends on the density(or how much mass is packed in to a space) because particles are closer together and energy can be transferred more quickly.

How sound travels through different media. - YouTube

April 8

Sounds needs to travel through a medium/substance of solid, liquid or gas. This is why there is no sound in space.

Sound in a Vaccum 101 (youtube.com)

Can You Hear Sound in Space? - YouTube

Can You Hear Sound in Space?

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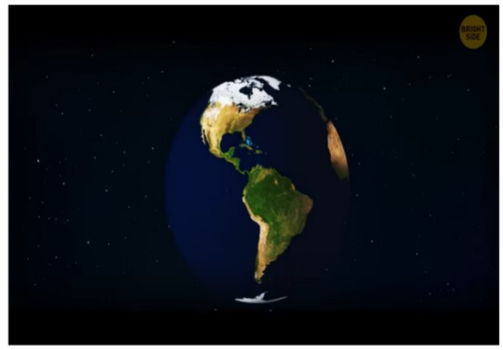
Why is there no sound in space? - YouTube



Why is there no sound in space?

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Sound Can Move in gas

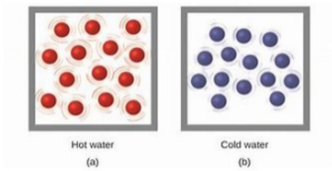
In gas particles, the particles are far apart from each other and they flow freely around filling up the space of the room or container.

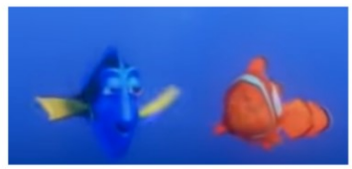
When there is a vibration in the air, the particles have to travel farther to bump into the next particle and start it to vibrate. Each particle has a longer distance to travel to meet another particle to keep the vibrations moving along. It doesn't take much to start a wave in gas, but it doesn't travel as fast and it loses energy after a certain distance too.

Sounds Can Move in Liquids

In liquids, the particles are closer together than in air. Liquids can flow and they transfer the vibrations quickly from one particle to the next.

Sound can travel four times faster in liquid than it can in air, but it takes more energy (louder sound) to start the vibration. A soft sound would not have enough force to start the particles moving to begin with.





Sounds Can Move in Solids

In a solid, the particles are packed tightly together and a solid does not change its shape.

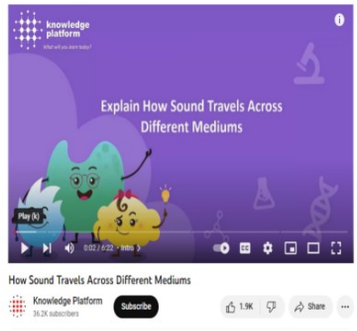
Sound wave travels faster in a solid than in air as the particles don't have to travel very far before they bump in to the next particle and get it vibrating.

You need **more energy** to start the vibration at the beginning but then it travels even faster.

Sound waves travelling through a solid are **13** times faster than when they travel through air.

Propagation of Sound: Sound Waves For Kids | Tutway - YouTube

Propagation of Sound: Sound Waves For Kids | Tutway



Sound Wave Experiments | Waves | Physics | FuseSchool - YouTube

6 min