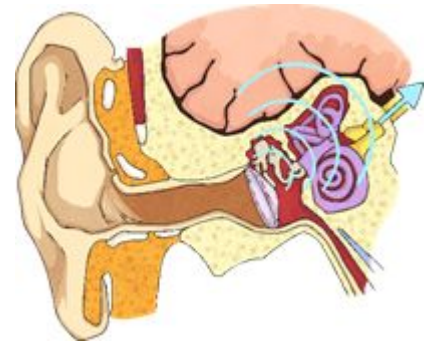
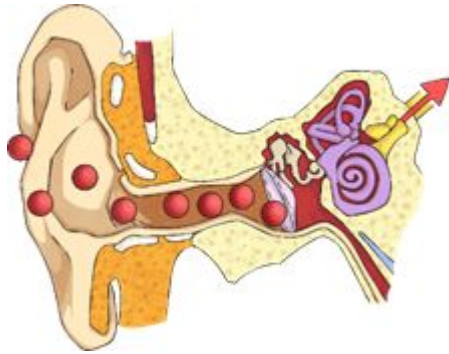


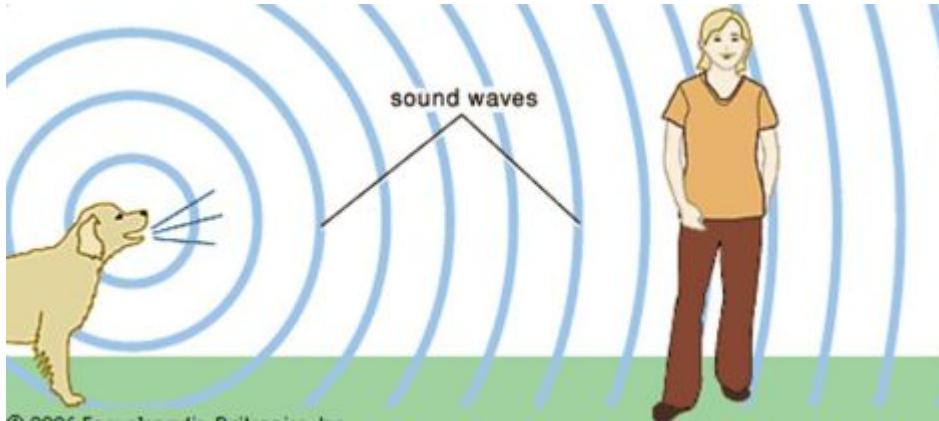
# Summer 2 Week 9 Science Lesson 2

Can I understand how sounds travel  
through a medium to the ear?

Last lesson we learnt how sounds are made by vibrations which cause molecules to shake and our ear can register this as sounds.



In today's lesson we are going to look closer at how sounds travel through mediums to reach our ears.



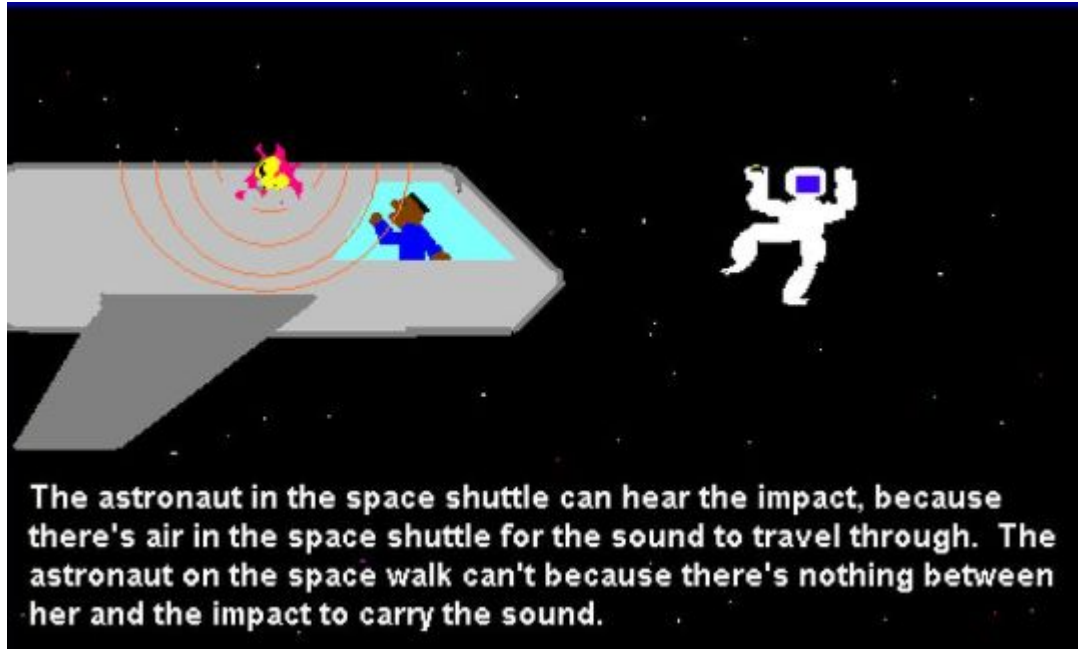
Sound can travel through solids, liquids and gases.

Sound travels as a wave, vibrating the particles in the medium it is travelling in.

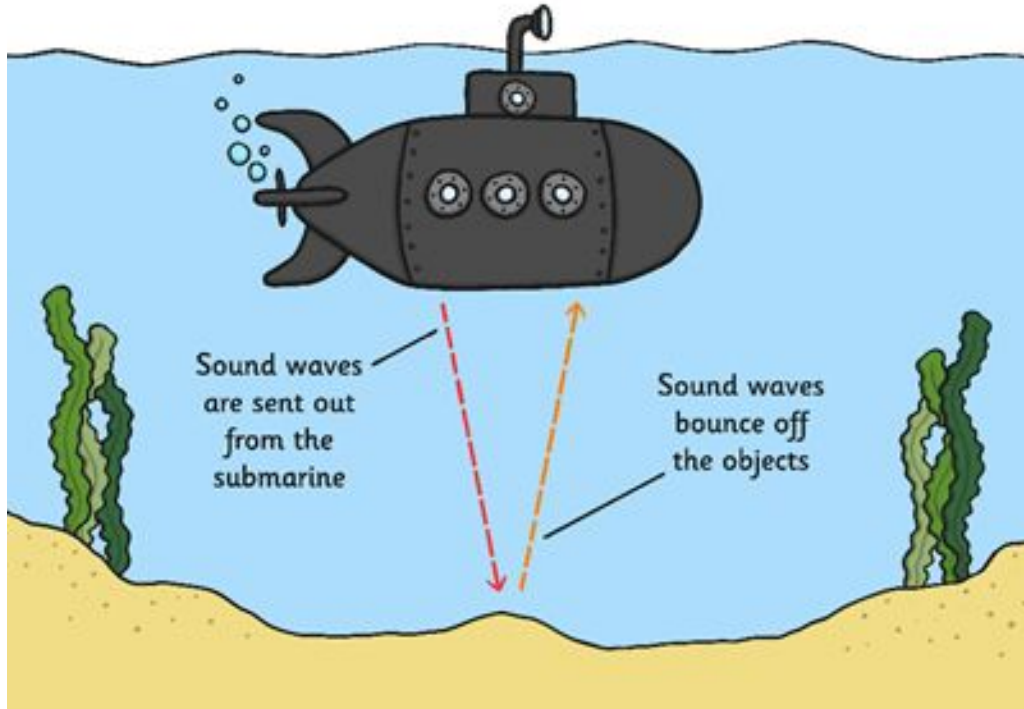


So in our example from last lesson, when you hit a drum, the drum skin vibrated. This made the air particles closest to the drum start to vibrate as well. The vibrations then passed to the next air particle, then the next, then the next. This carried on until the air particles closest to your ear vibrated, passing the vibrations into your ear.

Sound needs molecules to move. It is impossible for sound to travel in space.

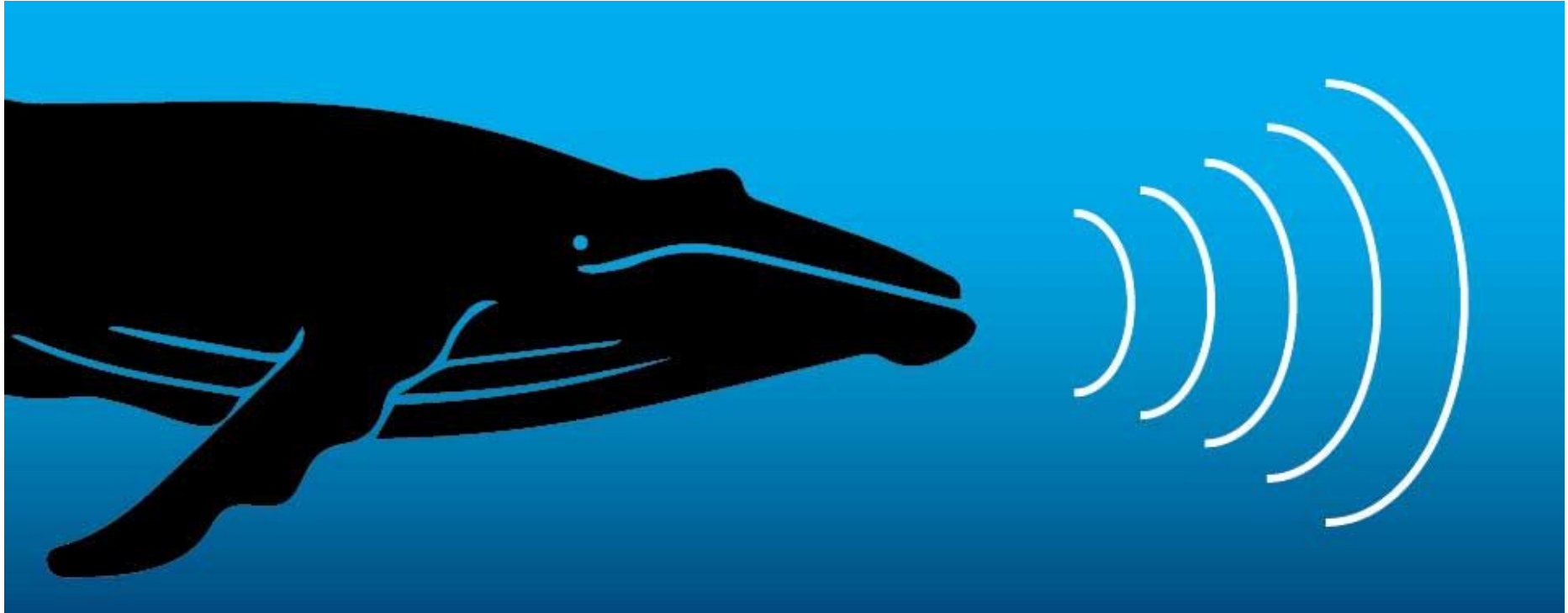


Sound doesn't have to move through air. It can travel through water or metal.



In fact, sound travels faster through water and solids than it does through air.

We know whales and dolphins can communicate with each other underwater using sound waves.



Sound travels much slower than light, whether in air or in water.

You often hear things after you see them, for example you see the lightning before you hear the thunder.



**Light travels at 186,000 miles per second.**

**Sound travels at 770 miles per hour.**

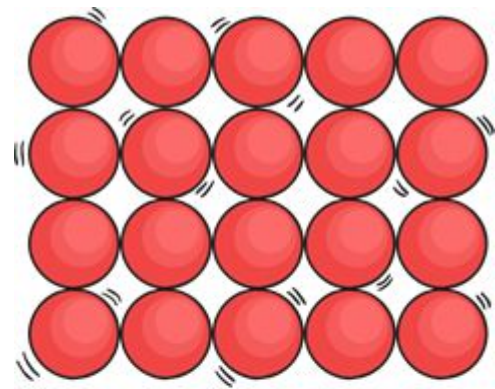


Do you think sound travels faster through solids liquids or gases?

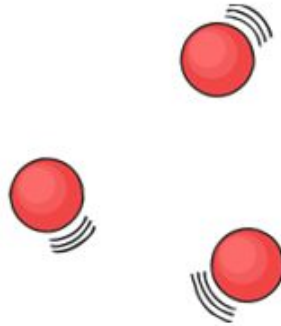
**Hint**

Think about how close the molecules are to each other.

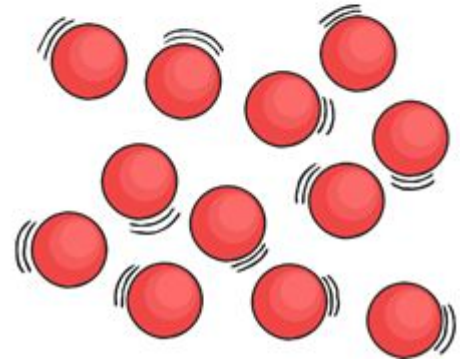
Solid



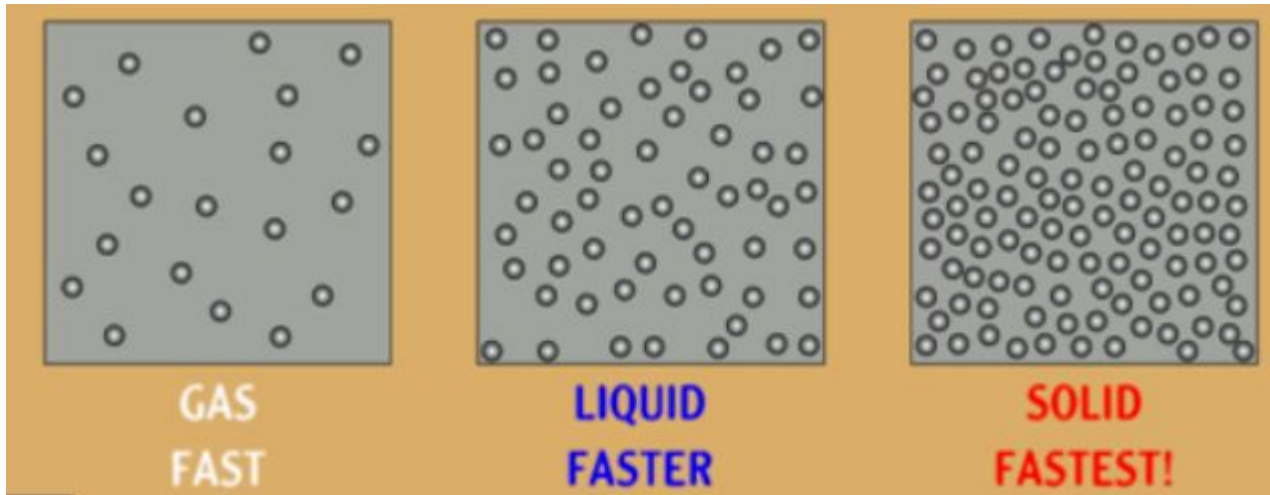
Gas



Liquid



Sound travels fastest through solids. This is because molecules in a solid medium are much closer together than those in a liquid or gas, allowing sound waves to travel more quickly through it.



Using the format below your task today is to create a mini presentation that you could share with someone explaining how sounds are made and travel to our ears. There is support in the task if you need it.

Introduce yourselves and tell the audience what the programme will be about.

Explain how sound travels from a sound source to our ears.

Give your audience any more information you think they need to know, then thank them for watching.