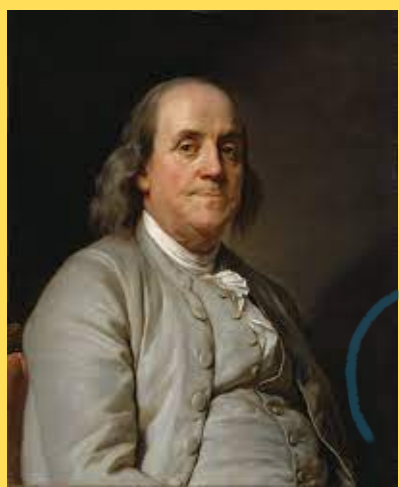


# HOW HAS ELECTRICITY CHANGED OUR LIVES?

## WHO DISCOVERED ELECTRICITY?

Benjamin Franklin discovered electricity in the 1700s by flying a kite with a metal key attached to it in a thunderstorm. He found out that lightning is a form of electricity.



**Benjamin Franklin .**

## WHAT IS ELECTRICITY?

Electricity is the flow of charged electrons.

## HOW IS ELECTRICITY GENERATED?

Electricity is generated in power stations and travels to our homes, schools and shops by power pylons.

## CONDUCTORS

Copper  
Aluminium  
Gold  
Silver

## INSULATORS

Glass  
Air  
Plastic  
Rubber  
Wood

## HOW DOES ELECTRICITY FLOW?

Electricity is a type of energy which can build up from one place to another. It will flow through conductors, but is unable to flow through insulators.



### What are renewable electricity sources?

Wind Turbines  
Solar Panels

### What are non-renewable electricity sources?

Coal  
Gas  
Nuclear  
Power Stations



## Working Scientifically

**Prediction** - Make a statement as to what may happen.

**Enquiry** - To find the answers to specific questions.

**Reliable** - An experiment which is repeated with similar conditions and obtains similar results.

## KEY VOCABULARY

**Conductor** - A material which allows the flow of electricity through it.

**Insulator** - A material which will not allow electricity to flow through it.

**Electrical Appliance** - An item which uses electricity.

**Circuit** - The connecting of different electrical elements.

**Complete circuit** - A complete loop of electricity flowing with no breaks.

**Incomplete circuit** - A broken loop of electricity which electricity cannot flow fully through.

**Renewable electricity sources** - A natural resource which can be replenished.

**Non-Renewable electricity sources** - A natural resource which cannot be replenished.



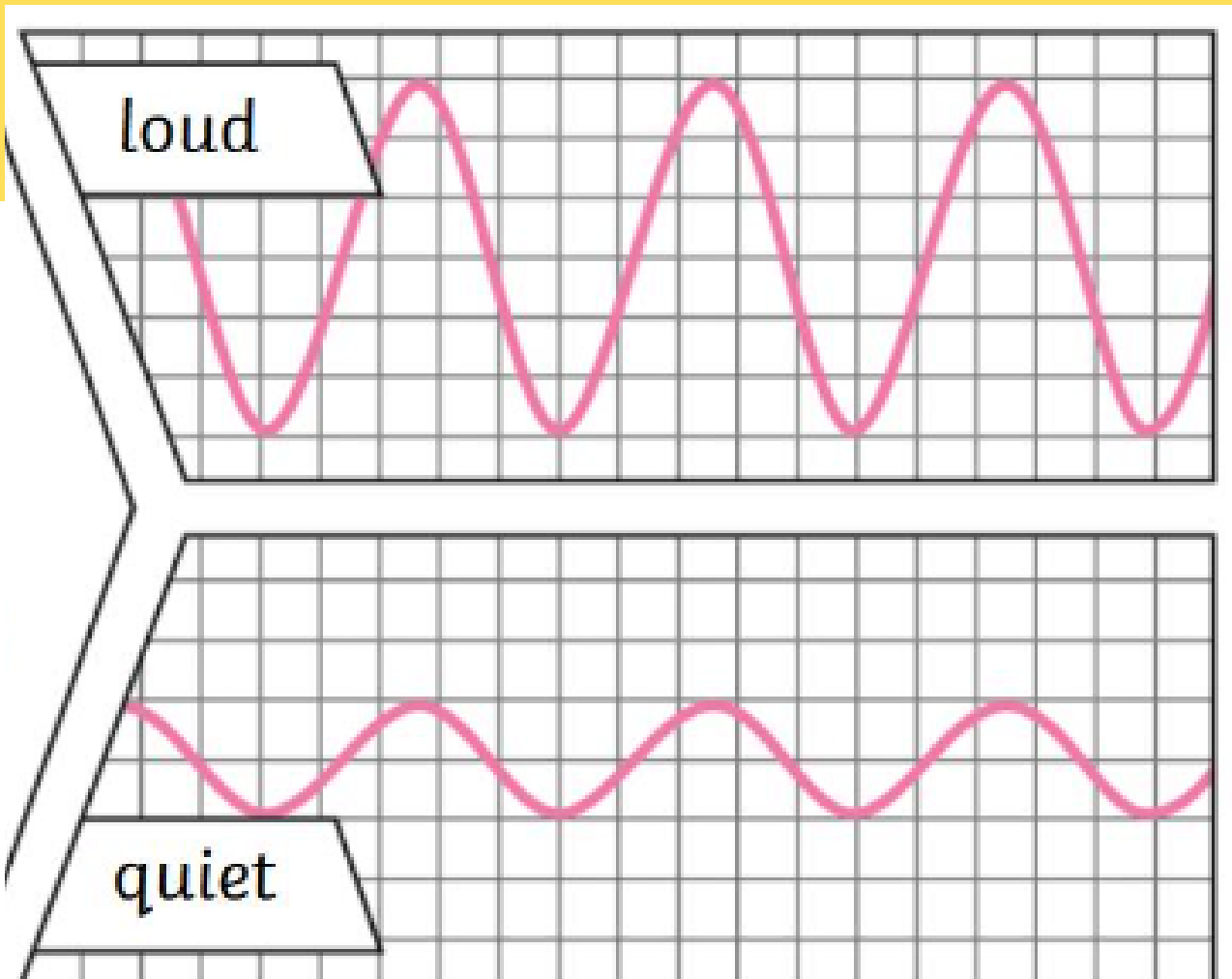
## YEAR 4 - TERM 2

# SOUND



### What is sound?

Sound is a type of energy. Sounds are created by vibrations. The louder the sound, the bigger the vibration.



### Key Vocabulary

**Vibration** - A quick movement back and forth.

**Sound wave** - Vibrations travelling from a sound source.

**Volume** - The loudness of a sound.

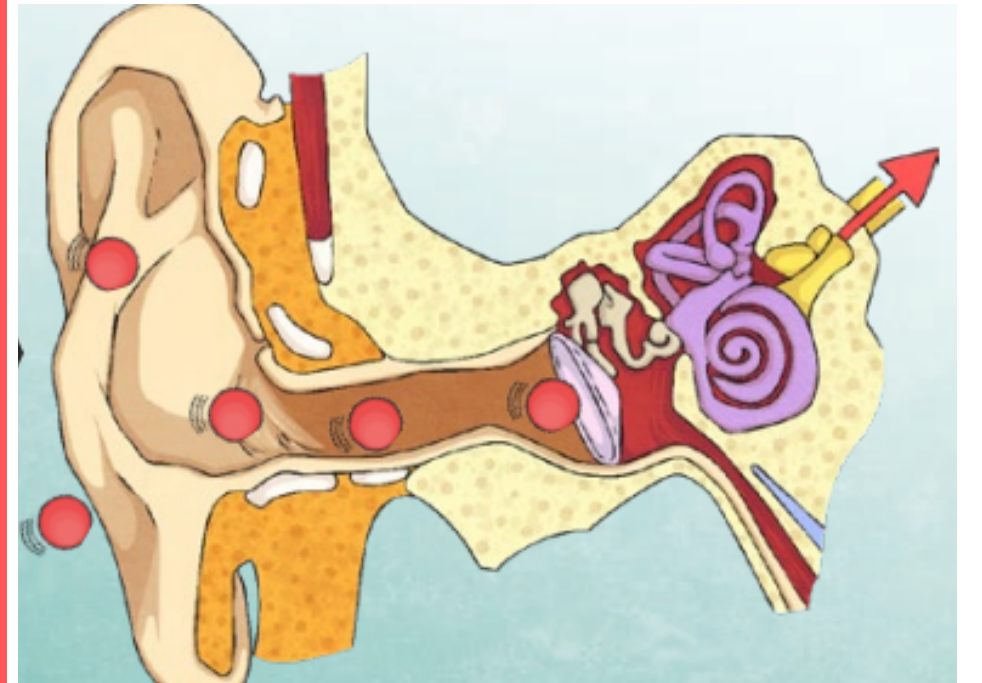
**Amplitude** - The size of a vibration.

**A larger amplitude** - A louder sound.

**Pitch** - How low or high a sound is.

### HOW DO I HEAR SOUNDS?

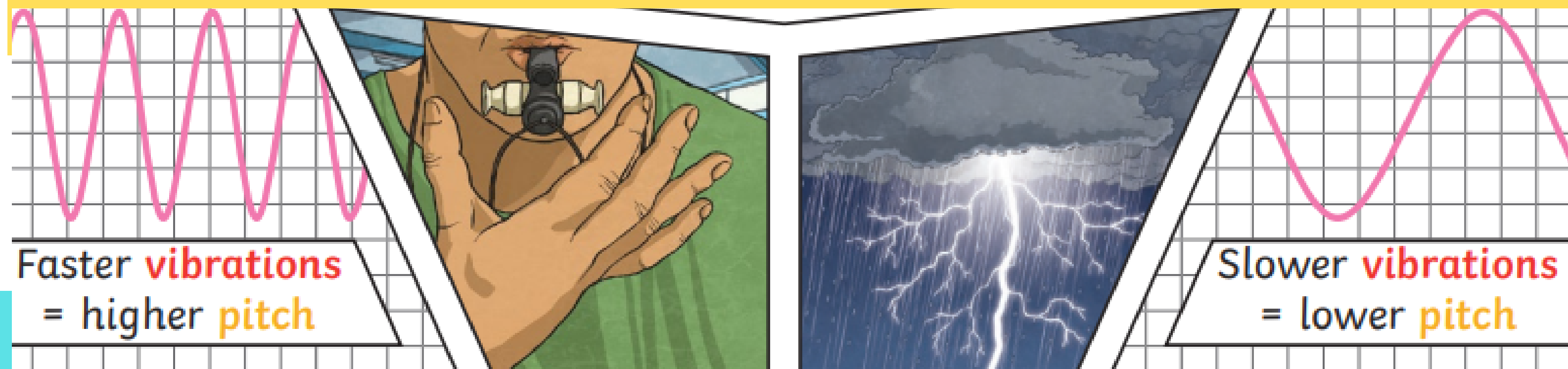
Inside your ear, the vibrations hit the eardrum and are then passed to the middle and then the inner ear. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.



### What is pitch?

Pitch is a measure of how high or low a sound is.

A whistle being blown creates a high-pitched sound. A rumble of thunder is an example of a low-pitched sound.



### How does sound travel?

Sound can travel through solids, liquids and gases. Sound travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.