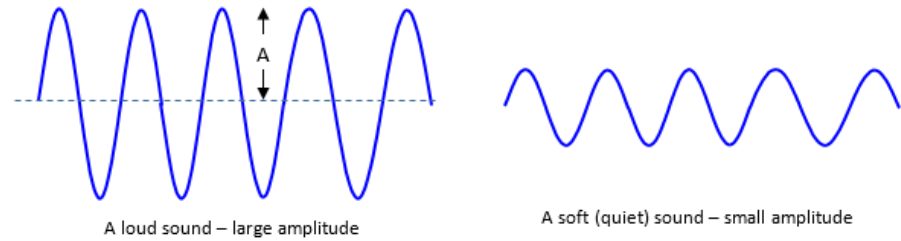
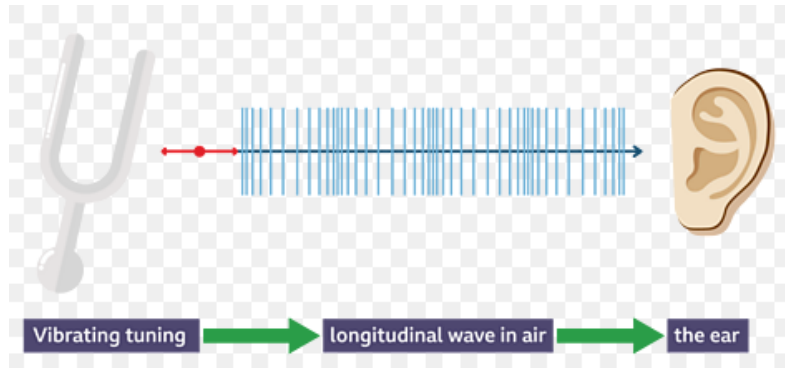


How do we hear music?



Sound waves spread out as they get further away from the source

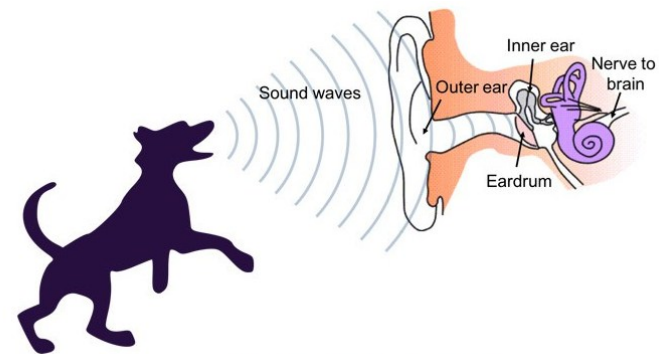


Image Credit: Svenja Lohner, Science Buddies / Science Buddies

cell	wires	circuit diagram	conductor
series circuit	switch	buzzer	sound waves
components	vibrate	insulator	bulb



Robert Boyle

(1627-1691)

He was a scientist who discovered how sound travels through air.



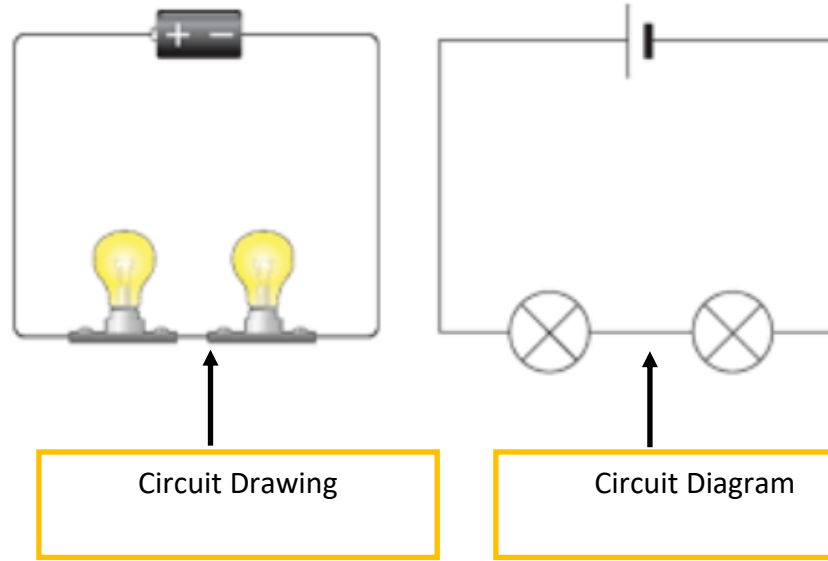
Electrical Appliances
 These need electricity or batteries to work.

In electrical **circuits**, **switches** are used to turn bulbs, buzzers and motors on and off.

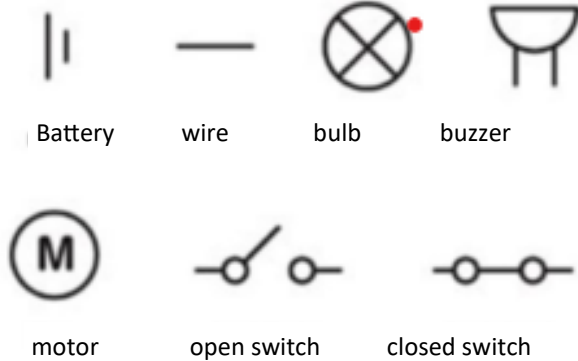
open

When the switch is open, devices will not work. They will be off.

Alex



Circuit Symbols



Electrical Insulators
 Some materials do not let electricity pass through them. These are electrical insulators.

E.g. plastic, wood, glass, rubber

wood	glass
rubber	plastic

Electrical Conductors
 Some materials let electricity pass through them easily. These are electrical conductors.

E.g. copper, iron, steel, water

copper	iron
steel	water