# Deaf, Deafened & hard of hearing

### deaf

used to describe someone who has severe hearing problems

### Deaf

used to describe someone has been deaf their whole life (or since they started talking)

#### Deatened

used to refer to a person who has become deaf once in adulthood

#### Hard of hearing

used to refer to a varying degree of hearing loss

## Anatomy of the EAR

## 466 million

ACT RIGHT

people have disabling hearing loss in the world, over



## **Auditory Nerve**

In the auditory nerve is hair cells which pick up the movement and detect the pitch and frequency of the sound and pass it down the nerve into the brain as a series of impulses.

#### Sound waves, in the form of vibrations around us, are collected by the Pinna (outer ear) and travel down the ear canal.

#### Ossicles

Group of three small bones called Malleus, Incus and Stapes

Ear Drum

#### The sound waves make the ear drum vibrate. The ear drum can detect the tiniest of vibrations and can translate the most complicate patterns

#### The vibrations are passed down the chain of small bones which is in contact with the cochlea.

Cochlea

The cochlea contains liquid which moves in wave like patterns depending on the vibrations shaking the cochlea.

The further the waves get into the cochlea determines the ears ability to process noises of a higher pitch.



## **Hearing Aids**

There are loads of different types oh hearing aids.

The main one used is BTE (Behind the ear) which act like a mini amplifier

Cochlea implants are fitted during an operation and they bypass the cochlea and convert sound into electrical signal which is transported straight to the auditory nerve and then continues in journey, as a hearing persons would, to the brain.