

AN INTRODUCTION
TO...

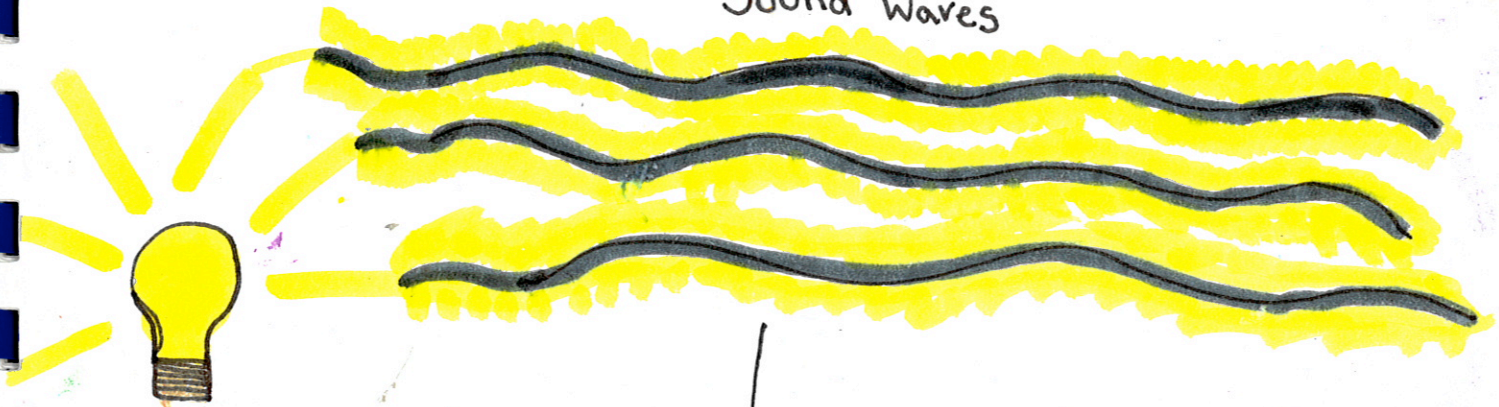
**Sound,
Hearing
AND
DEAFNESS**

by
Jennifer

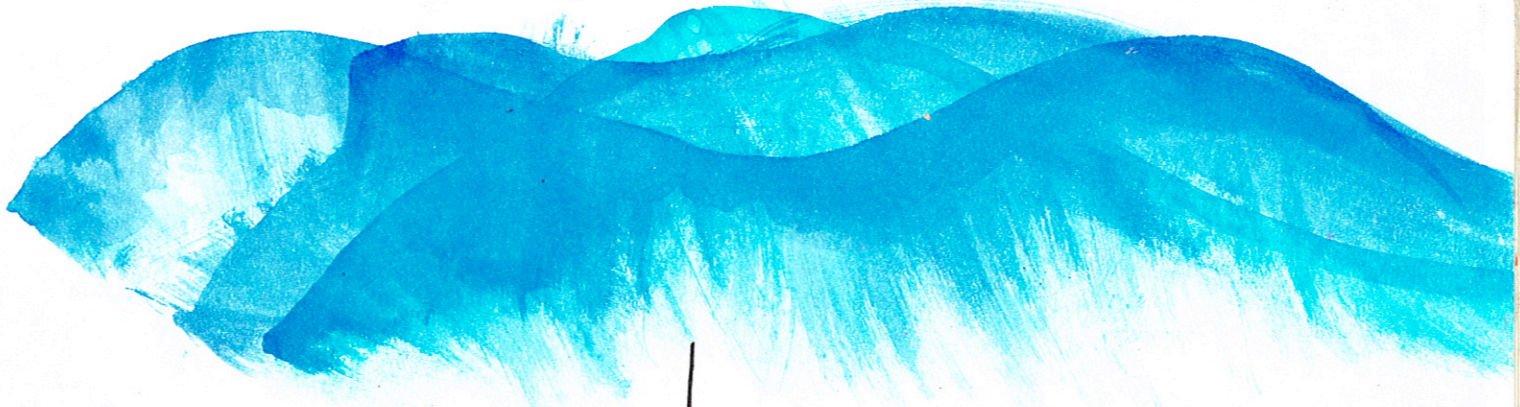
Hi Jamie!



Sound Waves



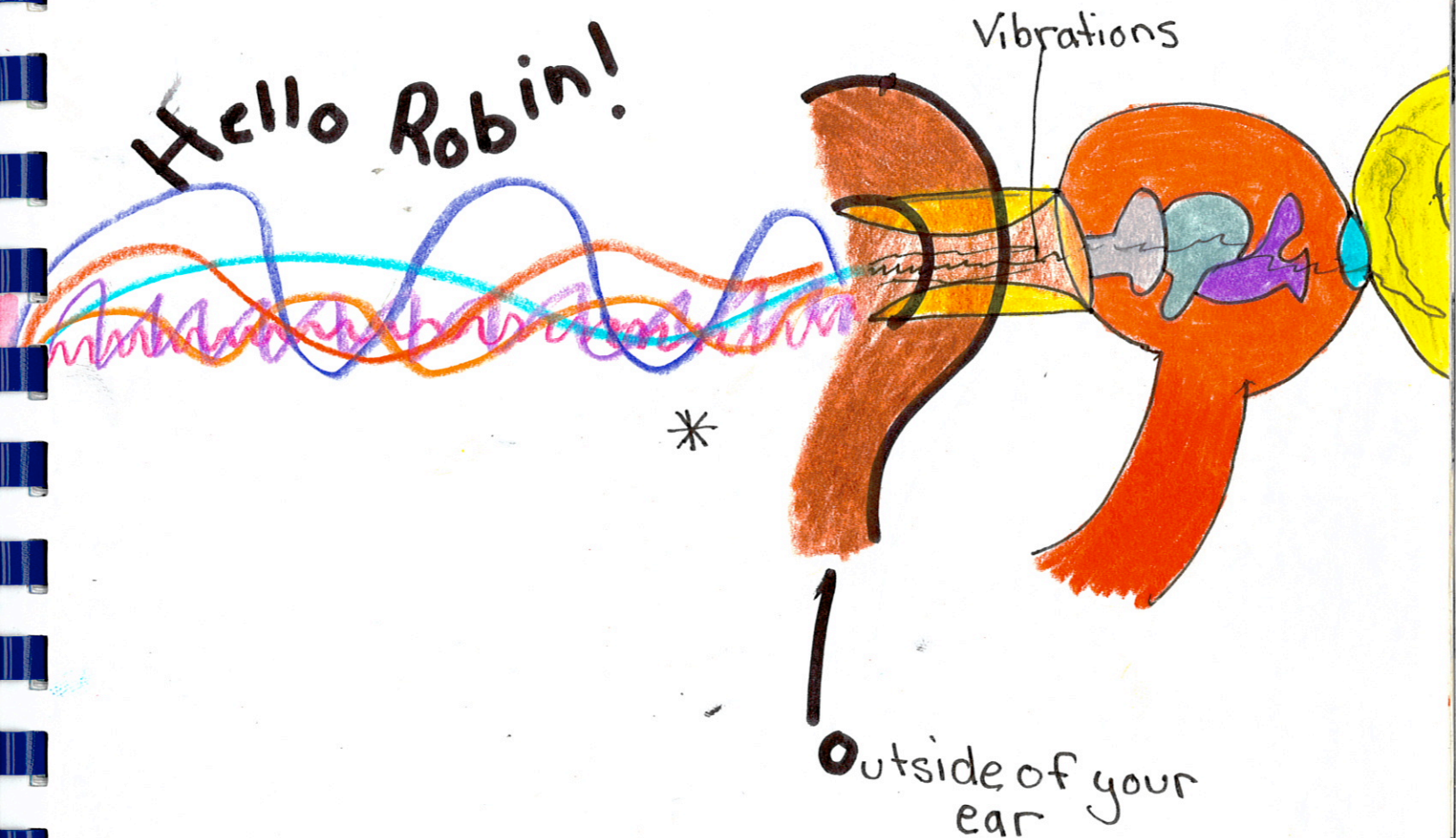
Light Waves



Ocean Waves

Waves. Many different things travel in waves. Light, sound and water travel in waves. Sound travels through the air in 'sound waves'. These waves are invisible.

Hello Robin!



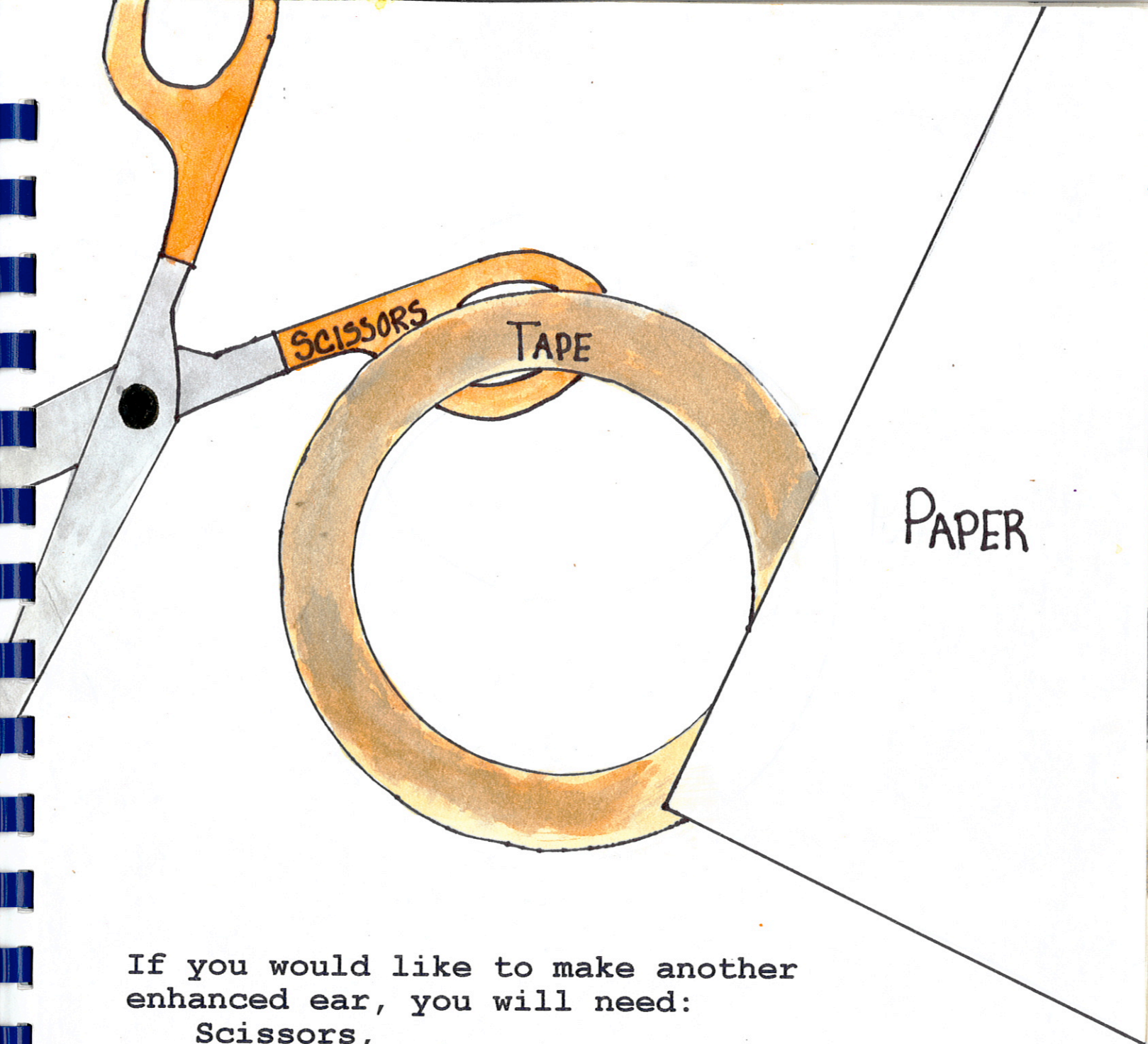
Different sound waves represent the different sounds you make when you speak. When the waves enter your ear though, they become vibrations. When the vibrations vibrate into your friend's ear they hear the message.

2

*Colors are not the real colors inside your ear.

Have you ever wondered why the pinna is so oddly shaped? It is like this so that it can receive sound waves from all directions; your left side by using your left ear and the right side by using your right ear. You can also hear ahead of you easily, too.

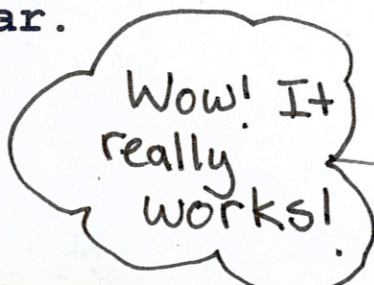


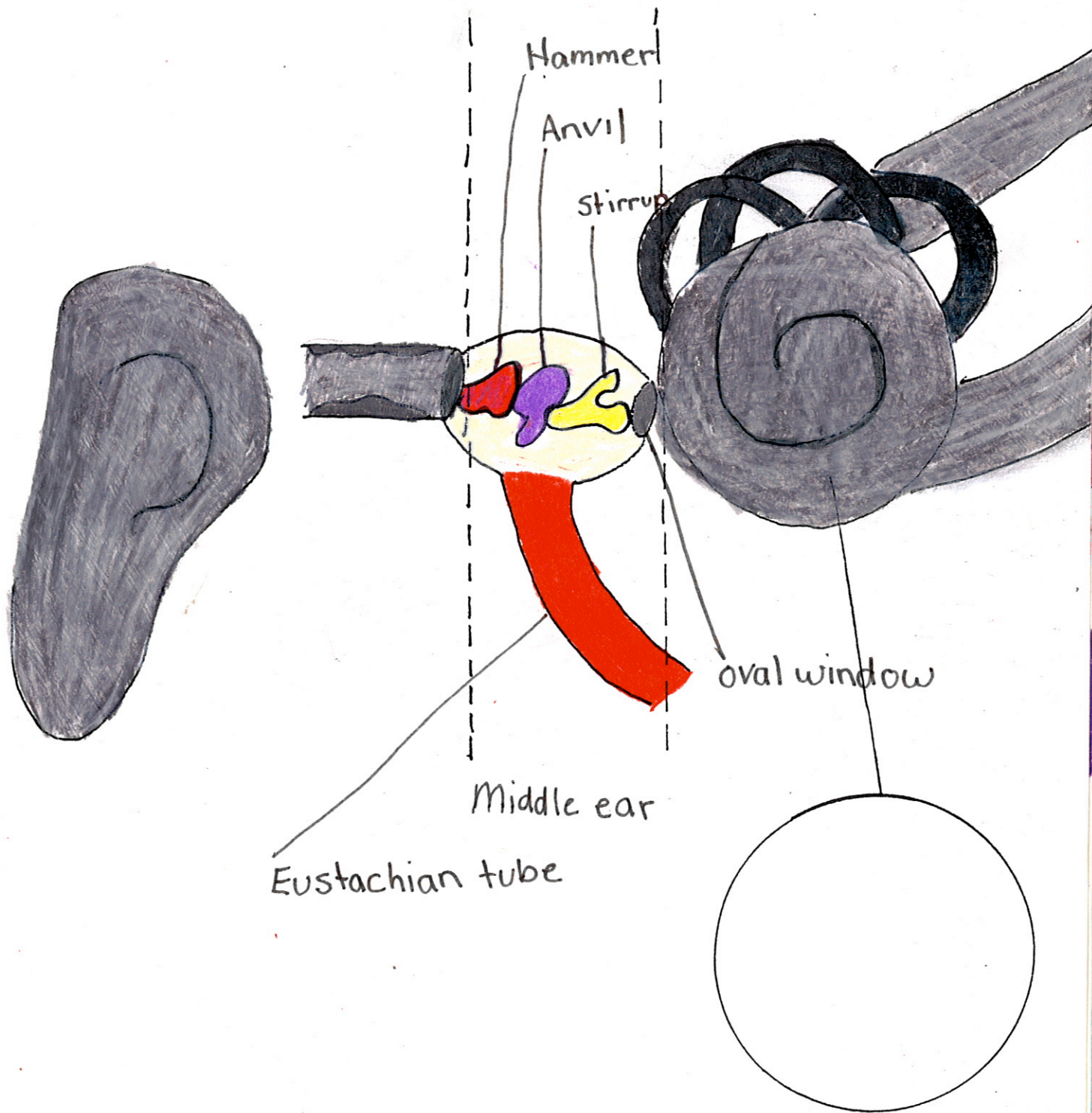


If you would like to make another enhanced ear, you will need:

Scissors,
Paper,
and tape.

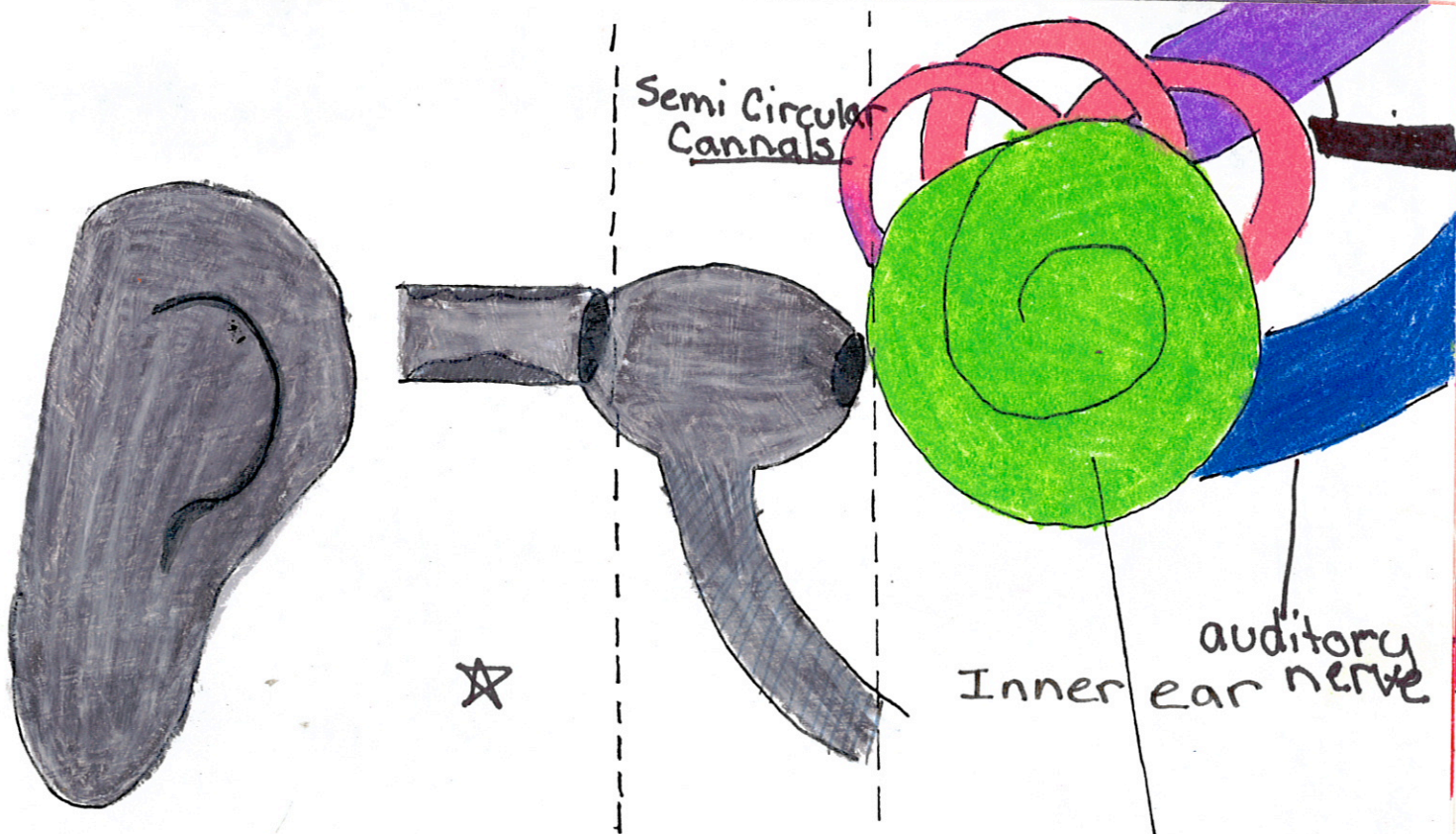
Cut your piece of paper into a rectangular shape. Now roll it up into a cone like shape. Tape the paper in place. That was easy! Put the tiny end of your cone into your ear. You just made another enhanced ear.



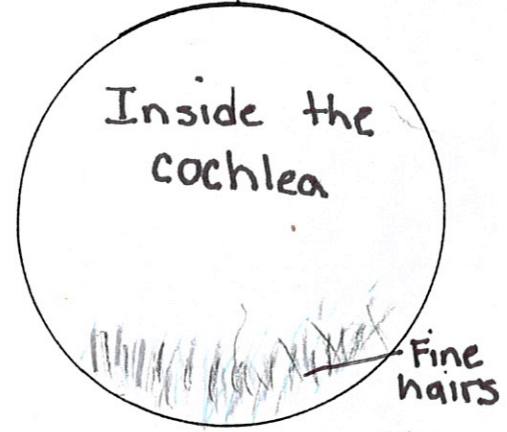


This is what your middle ear looks like.

Notice the eustachian tube (u-stay-shun tube). This odd looking tube connects your ear to your mouth.

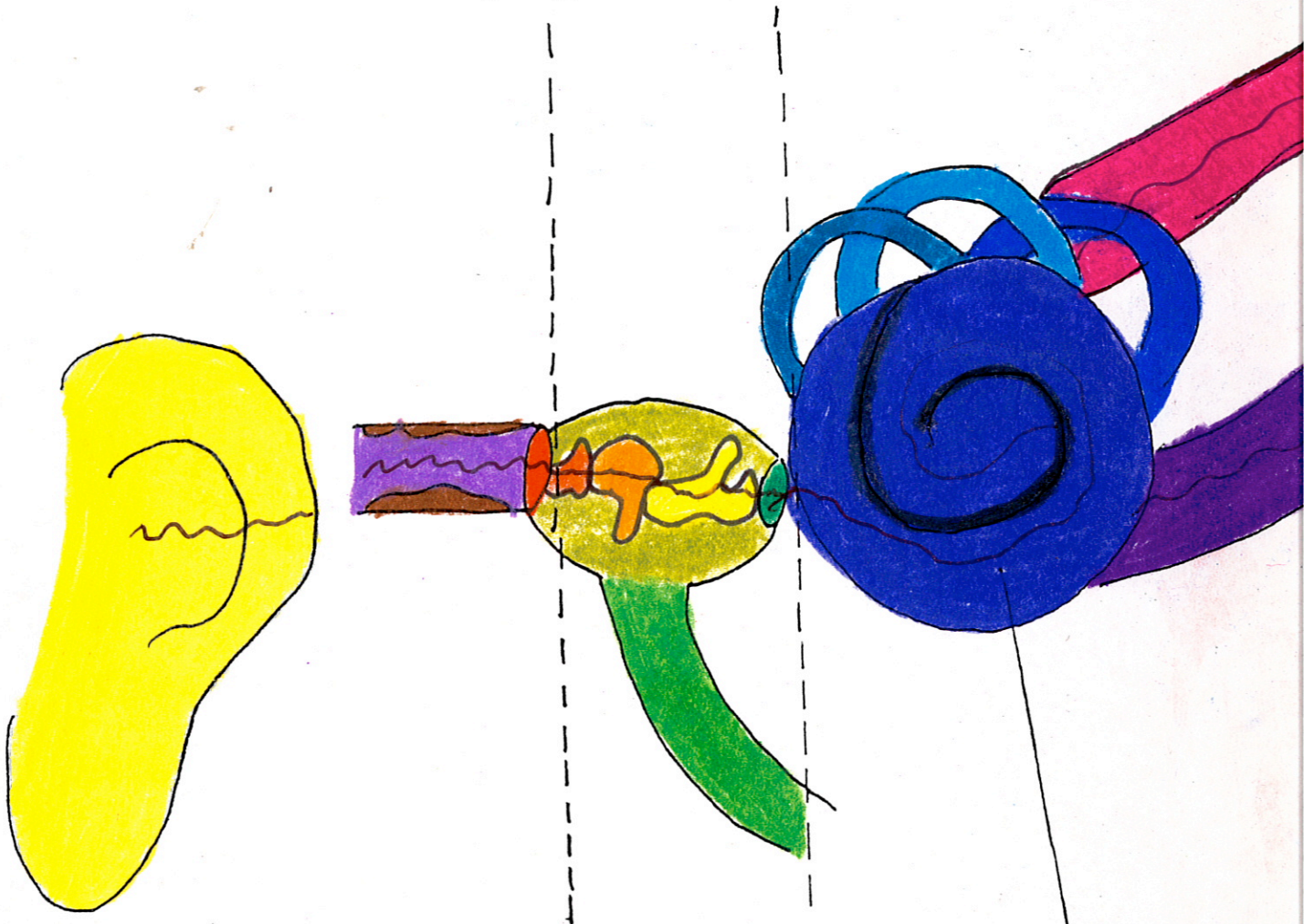


Vestibular nerve
 ☆ Colors are not the real colors inside your ear.

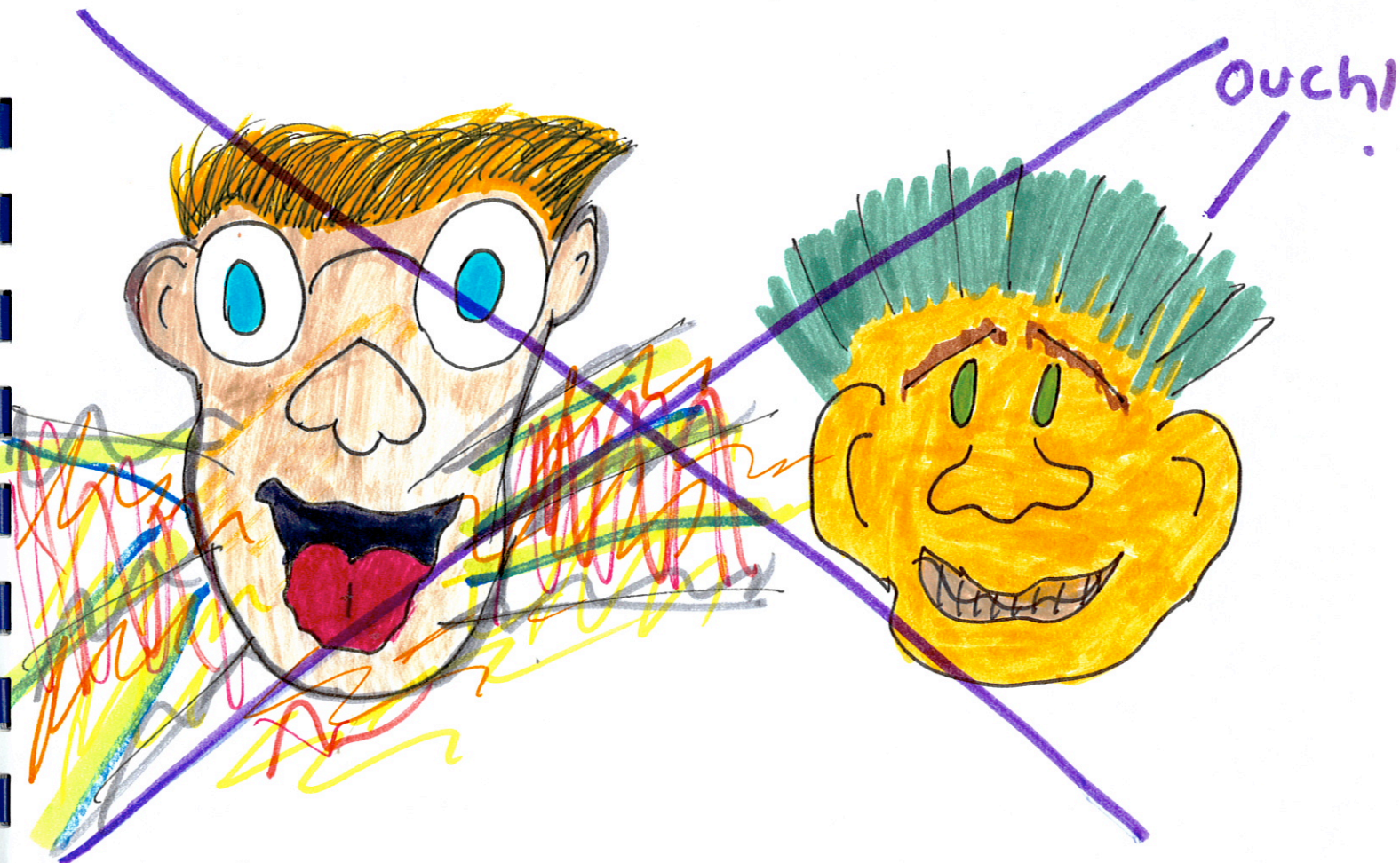


This section of the ear is called the inner ear. The large shell object is called the cochlea (coke-leah). Inside the cochlea are tiny hairs; when a sound vibration vibrates one of those hairs, it sends a message to the brain and you hear the sound. There are two different nerves that connect the ear to the brain. The purple one is called the vestibular nerve (vest-tib-u-lar nerve); the other nerve is called the auditory nerve (odd-it-tory nerve).

This is how your ear works; first someone sends a message to you; then the sound waves enter your ear and vibrate those three little bones in your middle ear. Finally, the vibrations travel through the little oval window into your cochlea and it sends a message to the brain and you hear the message your friend sent to you.



Inside the
Cochlea



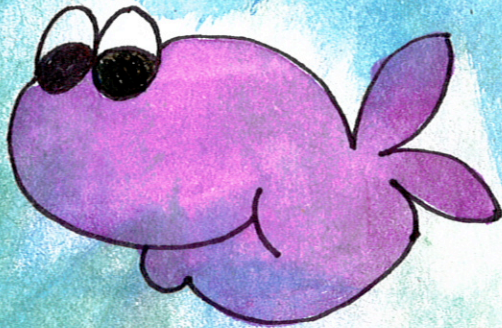
The ear is a very delicate part of your body, so you shouldn't test it's strength by yelling directly into someone's ear. Many heavy metal band players have become deaf or hard of hearing because they play so loudly without taking the proper precautions.

Ear protectors come in various sizes and shapes so you can get exactly what you need. Ear protectors block out loud sound so it doesn't hurt or create some kind of damage to your ear. When the sound waves hit the protector, it acts like a barrier and filters out the sound. Protectors do not block out all the sound, but they absorb enough sound waves so that your ears are comfortable.


Have you ever wondered what it would be like to have a hearing loss? Just because you have a hearing loss, it doesn't necessarily mean you can't hear anything. There are many different kinds of hearing losses. They range from mild losses to total or profound deafnesses.

These different losses fit into different categories. One of the categories is called a conductive loss; something goes wrong in the outer or middle ear. This type of deafness is caused by wax build-up, fluid in the ear, old age and loud noises.

The other category is called a sensori-neural loss; something goes wrong with the inner ear. This can be caused by a genetic problem (something passed on through the family, like bones missing, etc. . .) or it can be unknown.



I can't imagine being deaf!




Yeah, I can't imagine being hearing either!

Conductive hearing losses sometimes can be fixed by surgery or helped by a hearing aid. Sensori-neural losses, however, usually can not be fixed.

Did you know that you can become hard of hearing just by using cotton-tipped ear cleaners? Actually, you can become hard of hearing by sticking anything in your ear! When you try to clean out the wax in your ears, you are actually pushing the wax against your eardrum. When sound waves enter your ear, your ear drum can't vibrate because it is so stiff from the wax!





Some deaf people sign and some speak, which is the right one and the best one? This is a difficult question. It really depends on the person. For some deaf people, speaking works well. For some it does not.

Speech comes more easily to:

- People who still have a lot of their hearing
- People who went deaf after they learned to speak

Speech can be very difficult for:

- People that were born deaf
- People who are very deaf

Some people feel that deaf people should feel part of the hearing world as much as possible. So many people feel speech is the best way. But remember, speech isn't easy for everyone!

But, some people feel that speech holds back children because almost the whole school day at an oralist (speaking deaf school) is spent on learning how to lip-read and to speak. But at a signing school they feel open and free. They don't have to feel stupid by always making speech mistakes.



How would you talk to a deaf person? Should I talk louder? Should I over pronounce the words? When you are talking to a deaf person you should stand facing them. NEVER talk louder or over pronounce unless they ask you to! When you talk remember to talk normally because when you are talking, chances are they're lip-reading.



Lipreading is a method of learning the form of the mouth for each word. Although this method is used by many, statistics show that a skilled lip reader can only get about 30% of what is said. Imagine only catching a little bit of what your friend said, that would be hard, very hard.

Conclusion

Many hearing people feel badly for deaf people, perhaps because they think that their language skills are very weak. They want to make deaf people a part of the hearing world as much as they can, by making hearing aids and cochlear implants and many other devices. There is something that they have overlooked, however; do the deaf people want to be 'fixed'? This is a question that has many answers and may never be solved. To some, deafness is a disability that stunts one's life in ways unimaginable. But to some, deafness is a different way of life and is not a disability that holds back brilliant minds. It is a culture that possesses it's own language, own stories and fables to tell. Many people don't think American Sign Language is a real language, just an alternative to speech. But to many, it is their past, present and future. . . .