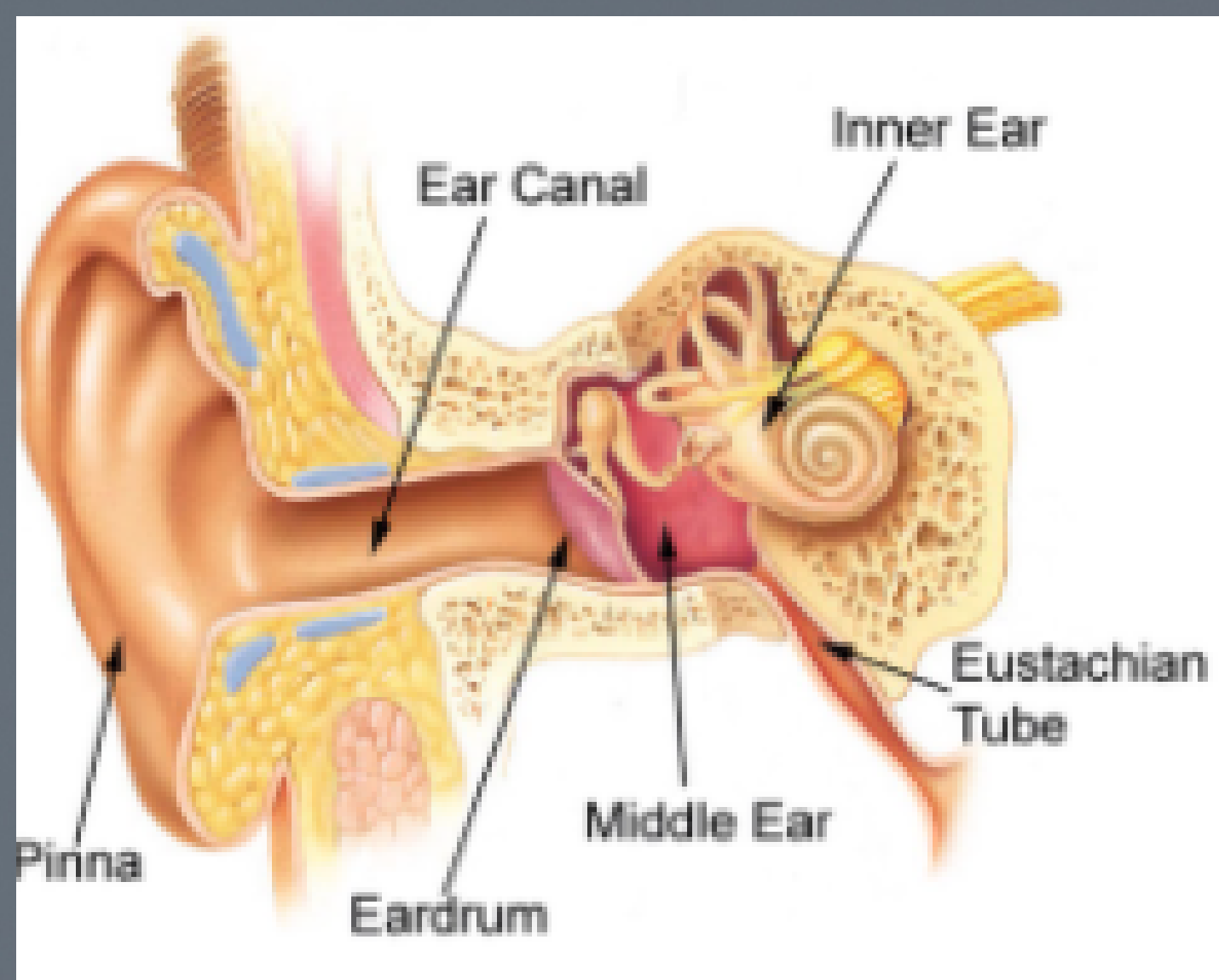
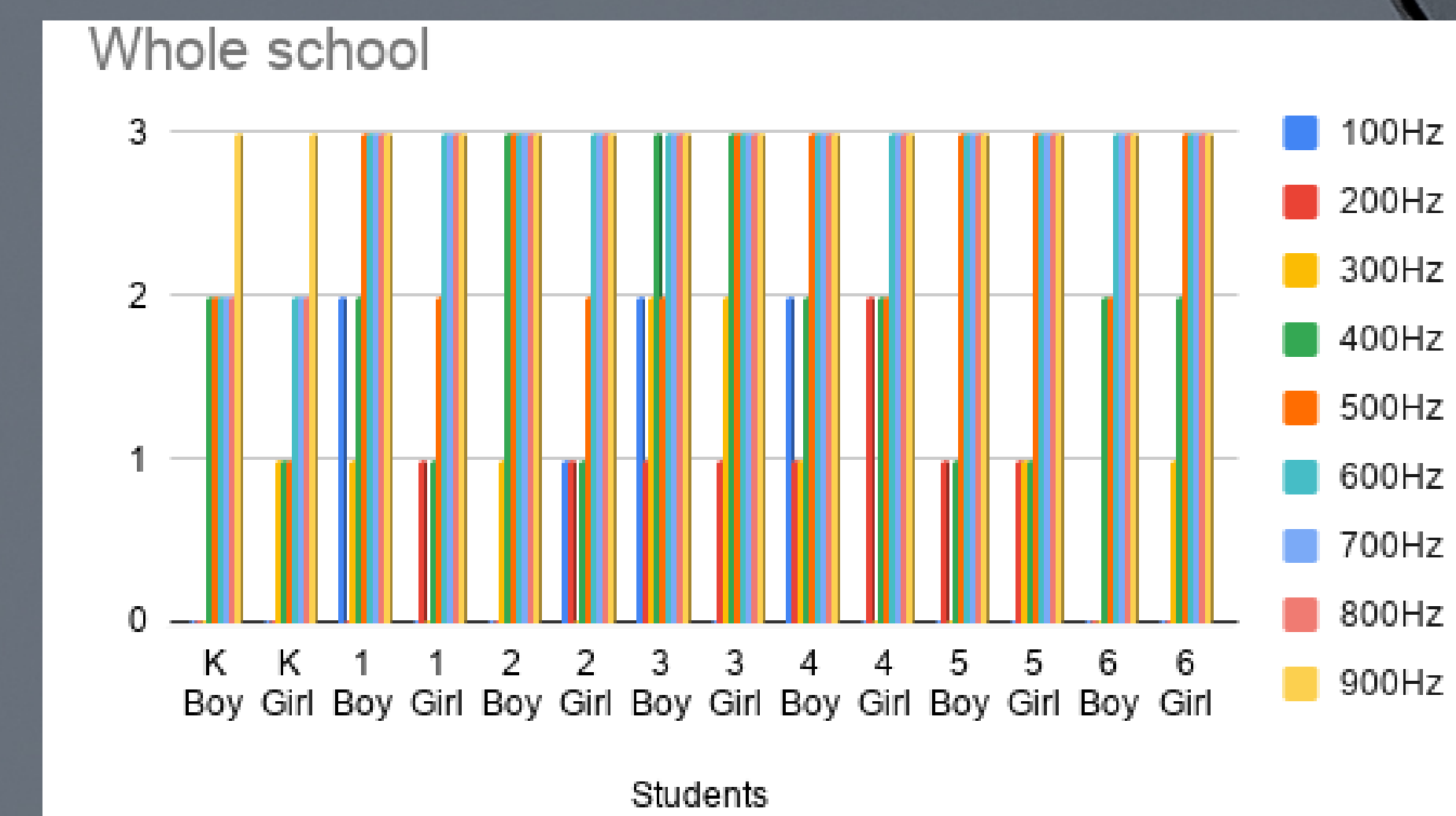
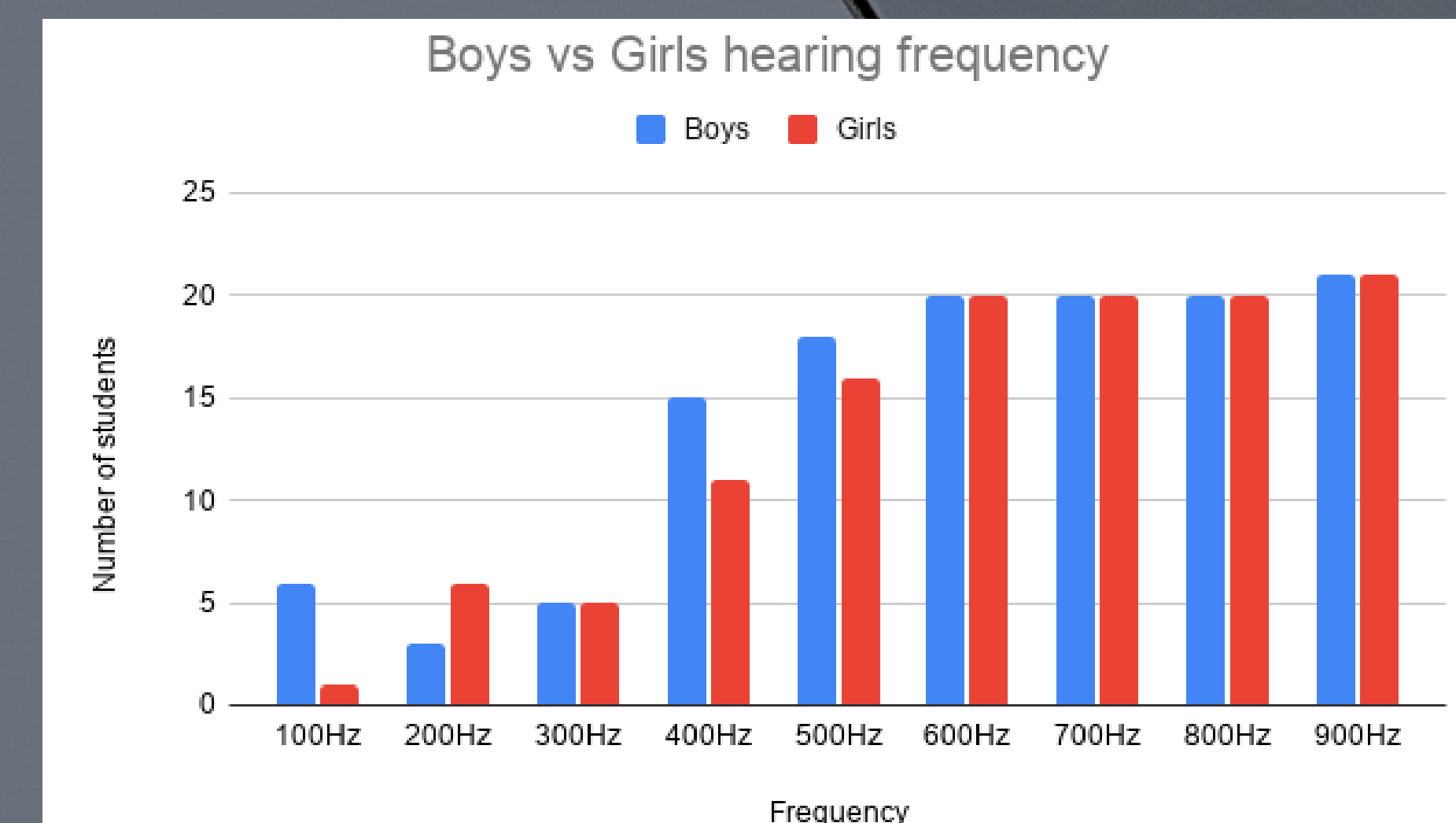


## BACKGROUND INFORMATION

Sound waves travel into the ear canal. When the sound waves reach the eardrum, the eardrum passes the vibrations through the middle ear bone and into the inner ear. The inner ear is shaped like a snail and is also called the cochlea.



# SOUND FREQUENCIES



## METHOD

1. Select 6 students from each grade K-6
2. Bring the students into a quiet room
3. Instruct students on what they need to do
4. Play the frequencies one at a time
5. Ask students if they heard anything after each frequency is played
6. Record their answers ensuring you the volume is kept at the same level for all frequencies.
7. Enter data into a graph

## EQUIPMENT

- Paper
- Pencil
- Range of digital frequencies from computer (100Hz-900Hz)
- Computer
- 42 Students
- Quiet room

## AIM

Our aim is to determine whether age and gender are factors in how well people can hear sound frequencies (100 - 900 Hz).

## HYPOTHESIS

1. We hypothesise that boys will have better hearing than girls overall.
2. We hypothesise that Kindergarten students will hear higher frequencies than Year 1 students.
3. We hypothesise that older students (ages 10-12) will hear higher frequencies than younger kids .

## ANALYSIS

- Our first hypothesis was correct. From the results we found that boys can hear higher frequencies than girls. We were able to understand that boys aged 5 and 6 years old can hear lower sound frequencies than girls.
- Our second hypothesis was incorrect, as Year 1 students were able to hear higher sound frequencies than Kindergarten students.
- Our third hypothesis was incorrect. Younger students were able to hear both higher or the same sound frequencies as Years 4 - 6 students.