

3. High pitch and low pitch- teacher demonstrations

Notes “tuning forks”: *The shorter the tuning fork, the faster it is vibrating. The vibrations are transmitted to the water where they become visible as waves.*

These waves have a shorter wave length (compared to the other tuning fork) and we perceive them as “high pitch”.



Notes “drinking straw”: *The shorter the drinking straw gets, the faster it is vibrating, the shorter the wave length gets, the higher the pitch that we perceive.*



4. Hearing capacity

Theoretical background:

The lowest frequency human ears can perceive lies at 16 Hz. The highest frequency very much depends on the age of a person. At the age of 20 one can perceive frequencies as high as 20 kHz (=20000 Hz), at the age of 45 around 14 kHz and at the age of 65 around 5 kHz.

In a normal conversation frequencies vary mainly between 250 Hz and 5 kHz.

Put on the earphones and measure the highest frequency you are still able to clearly identify as sound.

Highest frequency: _____ My age: _____

Hearing capacity of the students of *Jangchub Choeling 2011*:

Frequency (kHz)

