

Practical 1 – Option F

The effect of sampling frequency on the measurement of the frequency of tuning forks

Criteria assessed

- CE

Materials needed

- Vernier microphone that connects to Vernier Lab Pro
- Set of tuning forks of known frequency

This is a simple experiment in which the sound made by the tuning fork is picked up by the microphone and analysed by the software of Vernier Lab Pro (FFT, i.e. Fast Fourier Transform). You can decode on the sampling frequency at which the sound is sampled. The FFT output is the frequency of the tuning fork.

- How is the output frequency related to the actual tuning fork frequency for various values of the sampling frequency? For what sampling frequencies is there agreement between the two frequencies?