**10A Measurement of loudness**

Think of a sound and then suggest where this will fit on the graph. Draw lines to show where these should be.

**Conversation **

|  |  |
| --- | --- |
|  | **180** |
| **170** |
| **160** |
| **150** |
| **140** |
| **Pain threshold** | **130** |
|  | **120** |
|  | **110** |
|  | **100** |
|  | **90** |
|  | **80** |
|  | **70** |
|  | **60** |
|  | **50** |
|  | **40** |
|  | **30** |
|  | **20** |
|  | **10** |
| **Hearing threshold** | **0** |

**Rock concert **

**Startup of a jet airplane**

**(100 meters away)**

**dB HL**

**In the woods**

**Compressed air hammer**

 **Firecracker**

**Road traffic**



 **10B Measuring waveforms**

Make a line to match waveforms and their frequency.

**160Hz 84Hz 120Hz 300Hz**





 **10C Activity sheet on loudness and frequency**

This graph shows how sounds compare in terms of intensity and frequency. Consider the groups of vowels and consonants and decide whether they are lower or higher frequency.

**Soft**

**Right ear**

**Degree of hearing loss**

**0**

**20**

m d b n

l

i p g

k

f s h t

**Mild**

**Intensity**

**40**

**60**

**80**

**100**

u a e r

**Vowels**

sch

**Consonants**

**Moderate**

**Intensity**

**Severe**

**Profound**

**Loud**

**125**

**125**

**Low**

**250 500 1K 2K 4K 8K Hz**

**High**

**Frequency**