



### Lesson 3 :

Use the fact boxes below to guide your answers to these tasks.

#### Volume

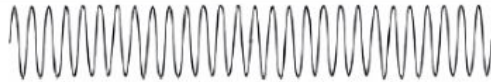
- a whisper: 20 dB
- loud music: 110 dB

#### Wavelength

- High-pitched sounds have high frequencies and shorter wavelengths.
- Low-pitched sounds have low frequencies and longer wavelengths.

#### Example

- The waves produced by an ambulance siren (at roughly 110 dB):



Match the wave to the sound you think it shows. One has been done for you.

1		A bass guitar
2		The National Anthem played at a high volume
3		A fire-drill alarm
4		The National Anthem played at a low volume

Now, complete the following statements using the word box to help you. Be careful: one of the words is used twice.

- Sounds 2, 3 and 4 have the same \_\_\_\_\_.
- Sound 3 has the longest \_\_\_\_\_.
- Sound 4 has the highest \_\_\_\_\_.
- Sound 1 has the same frequency as sound 2, but a lower \_\_\_\_\_.

amplitude      wavelength      frequency



Choose two different sounds to the ones you have looked at already. Sketch the wave you would expect each sound to produce.

Sound 1

Sound 2

Compare the waves of your two sounds. In what ways are they different? Explain your answer to your partner.