



## Waves

Students measure wavelength and height of different waves to ascertain which one has the highest pitch/is the loudest etc.

Grades:

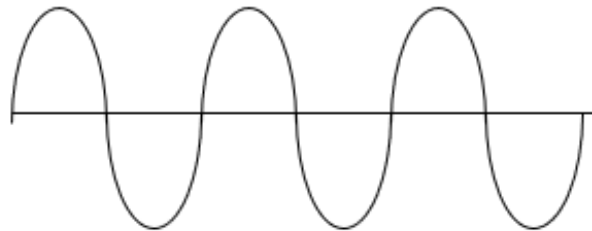
6, 7, 8

Disciplines:

Science

# Sound Waves

Label the sound wave below to show its wavelength and amplitude. Also label one crest and one trough.



Which of the above waves has: (NB You might need a ruler!)

|                          |                         |
|--------------------------|-------------------------|
| The highest frequency?   | The lowest pitch?       |
| The shortest wavelength? | The loudest intensity?  |
| The largest amplitude?   | The smallest amplitude? |
| The longest wavelength?  |                         |

The diagram contains five waves labeled A, B, C, D, and E. Wave A has a high frequency and small amplitude. Wave B has a low frequency and large amplitude. Wave C has a high frequency and small amplitude. Wave D has a low frequency and large amplitude. Wave E has a high frequency and small amplitude.

## Answers to Worksheet 8LI - Sound Waves

| Wave | Wavelength (cm) | Height of crest/trough (cm) |
|------|-----------------|-----------------------------|
| A    | 1.6             | 2.9                         |
| B    | 2.9             | 1.7                         |
| C    | 1.1             | 2.2                         |
| D    | 2.5             | 1.35                        |
| E    | 1.4             | 1.9                         |

Which of the above waves has:

- The highest frequency? C
- The shortest wavelength? C
- The largest amplitude? A
- The longest wavelength? B
- The lowest pitch? B
- The loudest intensity? A
- The smallest amplitude? D