Name:_____Answer Key_____ Date:_____

Waves Worksheet #2

A:___Crest_____

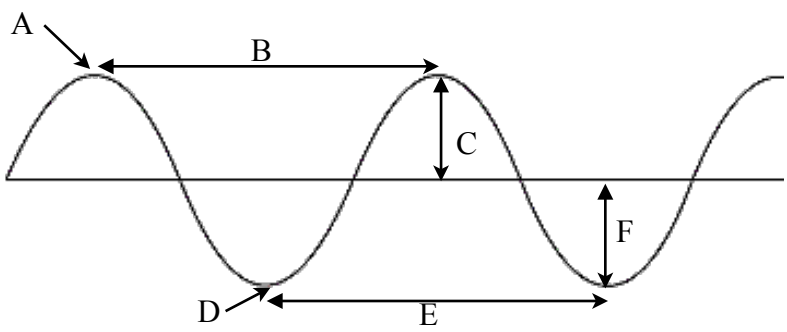
B:___Wavelength_____

C:___Amplitude_____

D:___Trough_____

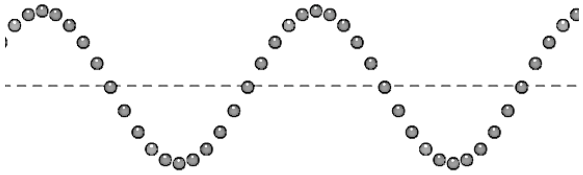
E:___Wavelength_____

F:___Amplitude_____

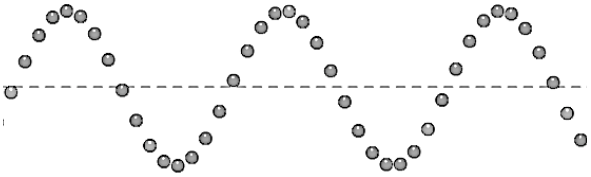


Frequency

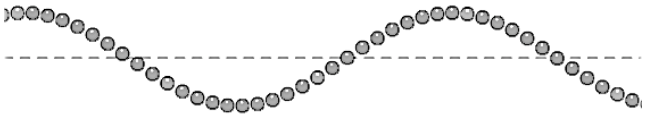
Wave 1:



Wave 2:



Wave 3:



1. How many wavelengths long is Wave 1?

   2 wavelengths

2. How many wavelengths long is Wave 2?

   2.5 wavelengths

3. How many wavelengths long is Wave 3?

   1.5 wavelengths

4. Which wave has the highest frequency?

   Wave 2

5. Which wave has the lowest frequency?

   Wave 3

6. What is the definition of frequency?

   The number of waves in a given time.

7. How can you tell by looking at it if a wave has high or low frequency?

   How close or spread out the waves are

Frequency Connection

There are three members of a family. The dad has a deep, low voice. The mom has a medium-high voice, and the baby has the highest voice.

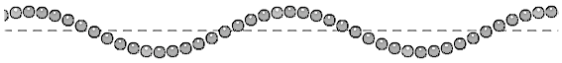
8. Which wave belongs to the dad's voice?_____Wave 3_____

9. Which wave belongs to the mom's voice?____Wave 1_____

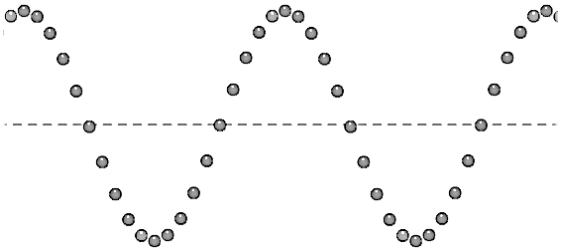
10. Which wave belongs to the baby's voice?____Wave 2_____

Amplitude

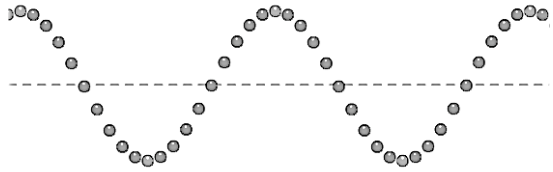
Wave 4:



Wave 5:



Wave 6:



1. Which wave has the highest amplitude?

   Wave 5

2. Which wave has the lowest amplitude?

   Wave 4

3. Use a ruler and measure the amplitude of Wave 5:

   ~ 0.5 inches

4. What is the definition of amplitude?

   The distance from the center/resting point to the crest/trough

5. How can you tell by looking at it if a wave has high or low amplitude?

   By how tall the wave is (or varied responses)

Amplitude Connection

Juan is playing the piano. The music starts of at *meso-forte* (medium high volume). It then *crescendos* into *forte* (loud) and Juan plays dramatically. The music ends at *piano* (quietly) with a sweet melody.

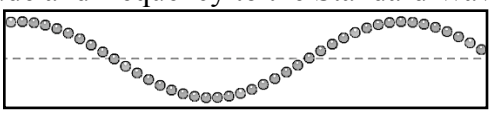
6. Which wave represents the music at the beginning?_____Wave 6_____

7. Which wave represents the music in the middle?_____Wave 5_____

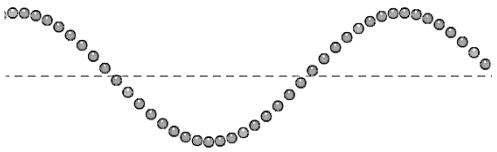
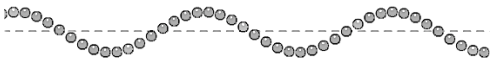
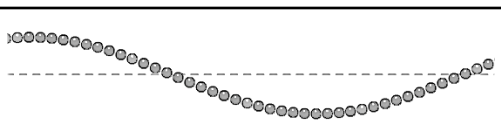
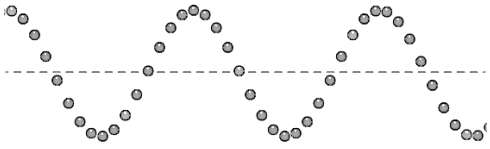
8. Which wave represents the music at the end?_____Wave 4_____

Final Waves Goodbye

Compare waves A-D by both amplitude and frequency to the Standard Wave. (Higher/Lower/Same)



Standard Wave

A  __Higher____Amplitude; ___Same____Frequency	B  ___Lower___Amplitude; ___Higher____Frequency
C  ___Same___Amplitude; ___Lower____Frequency	D  ___Higher____Amplitude; ___Higher___Frequency