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Motion

Reading Passage

Reading Passage

Motion
Vibrating Motion

PULL

The pictures to the right show four things that move with a vibrating motion, arranged from most pleasant to most unpleasant. When something vibrates it moves back and forth or up and down.
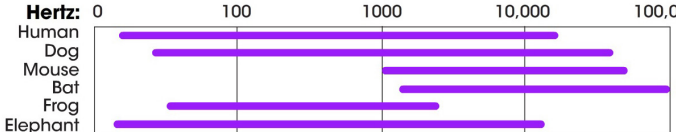
We can see the jackhammer and woodpecker's head moving back and forth. The motion of the guitar strings and humming bird's wings are so fast we just see a blur.

The speed of the vibration is called the **frequency**. Frequency tells how often (how frequently) the thin

Interactive Activity

Ranges of Hearing
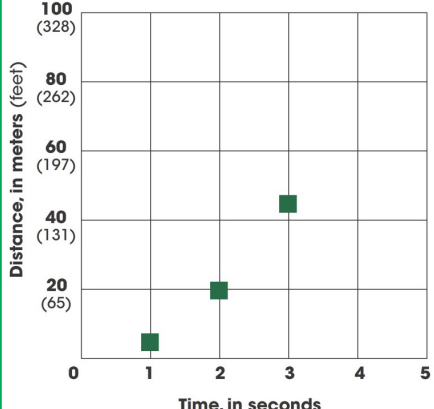
Hertz:	0	100	1000	10,000	100,000

Human
Dog
Mouse
Bat
Frog
Elephant

20-20,000 Hz   (label)

40-60,000 Hz   (label)

16-12,000 Hz ✓✓

(label)

50-4,000 Hz

1,000-70,000 Hz

2,000-120,000 Hz

(label)   (label)   (label)

? Reset

Interactive Activity

Acceleration of a Falling Apple Timeline

Acceleration = 10 meters (32 feet) per second *per second*

Distance = 0.5 X acceleration X time squared

Distance, in meters (feet)

| 100 (328) |
| 80 (262) |
| 60 (197) |
| 40 (131) |
| 20 (65) |

| 0 | 1 | 2 | 3 | 4 | 5 |

Time, in seconds

Time, in seconds	Distance, in meters(feet)
1	5 (16)
2	20 (64) ✓
3	45 (144) ✓
4	

10 (32)	35 (112)
60 (192)	80 (256)

? Reset