

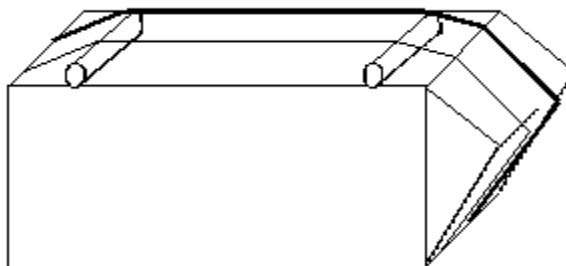
Guitars

Materials:

- 1 skinny rubber band
- 1 milk carton
- 1 fat rubber band
- 2 pencils

Procedures:

1. Put the rubber bands around the milk carton the long way.
2. Put one pencil under the rubber bands near each end of the carton.



3. Pluck the skinny rubber band and listen.
4. Now pluck the fat rubber band and listen. Does the skinny rubber band have a higher or lower pitch than the fat one?

_____ Higher

_____ Lower

5. Pluck the rubber bands again and watch them vibrate. Does the whole rubber band vibrate or just the part between the pencils?

_____ The whole rubber band

_____ Just the part between the pencils

6. Let's try making the length between the pencils shorter. First, pluck the skinny rubber band again and remember its sound. Move one of the pencils to the middle of the carton. Pluck the skinny rubber band again. Is the new sound higher or lower in pitch?

_____ Higher

_____ Lower

Conclusion:

A sound with higher pitch is caused by vibrations that are fast. A sound with lower pitch is caused by vibrations that are slow. The size of an object helps to determine if it will vibrate fast or slow and therefore its pitch.