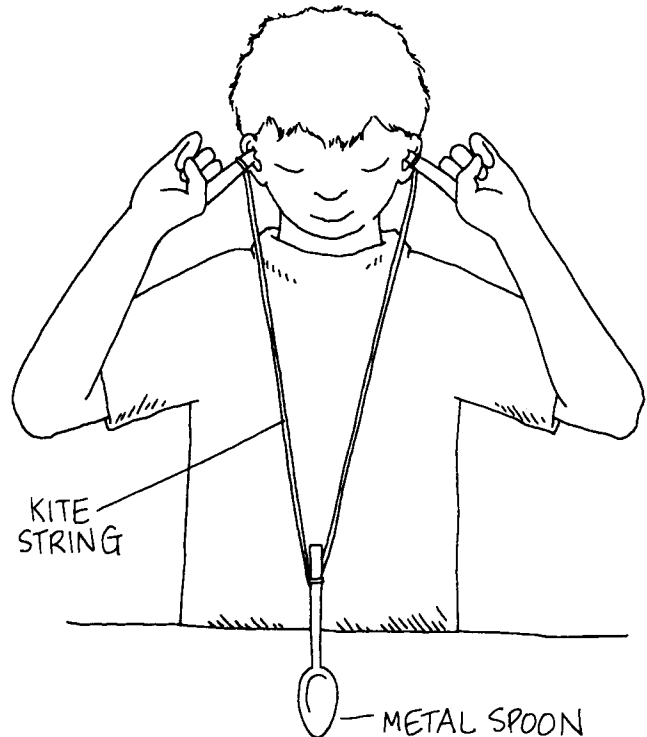


## How Do Whales Hear?

**Directions:** Work with a partner to complete the investigation below.

1. Tie the handle of a metal spoon to the middle of a long (3-foot) piece of dental floss. Wrap one end of the dental floss around your right index finger, and the other end around your left index finger. Make sure the lengths of the two sides are equal.
2. Press the tips of your index fingers firmly over the opening of your ear canals. Stand next to a desk. Bend over so that the spoon is dangling down in front of you.
3. Make a prediction. What do you think you will hear when you hit the spoon on the side of the desk?  
Have your partner write down your prediction.



4. Now move your body so that the spoon swings and taps the edge of the desk. What do you hear? Record your observations.
5. Explain your findings. Why do you think you heard what you did?

6. In what way are your fingers in this experiment similar to the fat pads in a whale?

7. In what ways do they NOT model the fat pads in a whale?

8. How does the human ear normally detect sound vibrations?