

Sound & Light

Chapter 1

Section 1

Wave Energy

Energy can be _____ away from its
source by a _____.

You can observe an example of a wave if you drop a
rock in a pond. Waves from the rock's splash carry
energy away from the splash. However, the
material through which the wave travels does not
move with the energy.

Can you move a leaf on a pond if you are standing on
the shore?

You can make the leaf bob up and down by making
waves that carry enough energy through the
water. But you would not make the leaf move in the
same direction as the wave.

Examples of Waves

1. _____
2. _____
3. _____
4. _____
5. _____

Waves and Work

As a wave _____, it does work on everything in its path. The _____ in a pond do work on the _____ to make it move up and down. The _____ also do work on _____ floating on the _____ surface. For example, boats and ducks bob up and down with waves. The fact that these _____ move tells you that the _____ are _____ energy.

Energy Transfer Through a Medium

Most waves transfer energy by the _____ of particles in a _____. A medium is a _____ through which a wave can travel. A medium can be a _____, a _____, or a _____. The plural of medium is media.

Mechanical Waves

1. _____
2. _____
3. _____

Mechanical Waves NEED A MEDIUM

Energy Transfer Without a Medium

Some waves can _____ energy without going through a medium.

1. _____ is one example.
2. _____ made by microwave ovens,
3. _____
4. _____
5. _____ used by dentists and doctors.

These waves are _____

Although electromagnetic waves do not need a medium, they can go through matter, such as _____, _____, and _____.