

## WHICH DIRECTION IS THE ENERGY WAVE TRAVELING?

A wave is a repeated disturbance that carries energy as it travels through stuff (a medium). Lagoon is full of screaming participants enjoying themselves on the rides and full of waves. When a rider screams, their vocal chords vibrate causing alternating high and low pressure to emanate from their mouth. Those high and low pressure bursts cause energy to travel through the air (the medium) to your ear and you hear the scream. When the pressure waves reach your ear, it causes your eardrum to move back and forth just like the screamer's vocal chords. Energy is transferred from the vocal chords to the ear drums through the air. In physics terms, it is acoustic energy transmitted as pressure waves through the air. Acoustic energy is just one form of energy that waves can transmit. There are many other forms of energy that produce waves. Lagoon is full of examples. Let's go on a scavenger hunt and discover the energy of waves all around us.



Fill in the following table with the medium the wave travels through, the direction of the wave motion, the type of wave, and the kind of energy they transmit. *Hint:* Define the three types of mechanical waves below. Does the stuff in the medium move in the direction the wave travels, perpendicular to the wave travel, or both?

**Transverse** \_\_\_\_\_

\_\_\_\_\_

**Longitudinal** \_\_\_\_\_

\_\_\_\_\_

**Surface** \_\_\_\_\_

\_\_\_\_\_

Ride or Activity	Medium (What's Moving)	Direction of Medium Motion	Type of Wave	Type of Energy Transferred
Screaming	Air	Perpendicular	Transverse	Acoustic (Sound)
Sky Coaster	Ride or Car			
Catapult				
Rattlesnake Rapids				
Turn-of-the-Century				
Log Flume				
Tidal Wave				
Music playing at Lagoon				