

HOW TO: Spouting Water Bowl

Supplies needed:

1 Chinese spouting water bowl = ~\$140

The Chinese Spouting Water bowl is a fun way to explore acoustic vibrations and resonance. The vibrations imparted from your hands to the bowl via the handles creates a series of micro-vibrations that move energy through the water. The bowl has a parabolic curve to the side walls, and the sound moves in a way that creates resonance and results in standing waves at the 'nodes.'

A standing wave is a wave that remains in constant position. This phenomenon can occur because the medium (water) is moving in the opposite direction to the wave, or it can arise in a stationary medium as a result of interference between two waves traveling in opposing directions.

Standing waves can be mechanically induced into solid medium using resonance. One easy way to understand example is two people shaking either end of a jump rope. If they shake in sync, the rope will form a regular pattern with nodes and antinodes and appear to be stationary, hence the name standing wave.

