

# Tibetan Singing Bowl

So called "Singing" bowls are actually a type of "standing" bell, and though often referred to as Tibetan Singing Bowls, they are more accurately called Himalayan Singing Bowls, as they are present throughout the Himalayan regions of Tibet, Nepal, India and Nepal, as well as similar types in Japan, Korea, China and Mongolia.

## WHAT TO DO

Gently rub the outside rim of the bowl with a wooden mallet until it begins to "sing".

## WHAT'S HAPPENING?

As you rub, the mallet sticks and slips around the rim, which is just like tapping the bowl very gently over and over again. This is called "stick-slip" friction, and makes the bowl begin to vibrate with many different frequencies or notes. While most of these notes quickly fade away, certain ones (called natural frequencies or harmonics) keep going and the bowl soon begins to "sing"- very quietly at first, but growing louder with each turn until it becomes surprisingly- even annoyingly- loud. This is called "resonance". Tiny amounts of energy from your rubbing keep adding up to produce a LOT of energy. This is the same reason you can make a friend swing very high even though you only give them tiny pushes (but only if you push at just the right times).

Depending on how you rub the bowl, you may be able to hear at least two different frequencies or notes. The lower note is called the fundamental or first harmonic, and the higher note is the second harmonic, which vibrates at twice the frequency of the fundamental. There are many other harmonic frequencies present as well, and while you may not hear each of them distinctly, when combined they are what create the unique sound of each bowl.