

PhyzGuide: Making Waves 1

TRANSVERSE WAVES



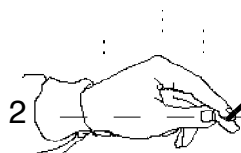
0

The undisturbed medium. In this case, we have a rope or string.



1

The left end is pulled upward by the energy-loading source. We now have a **crest**. The rope that has been pulled up tugs on the undisturbed rope to the right of it, and so the wave propagates to the right.



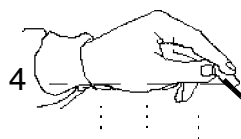
2

The source now moves back to the equilibrium position. The part of the rope that has been pulled down now tugs at the disturbed length of rope to its right, and so the "back side" of the crest propagates to the right.



3

The source moves below equilibrium to create a **trough**. The trough propagates through the medium by the same principle as described above.



4

When the source moves back to equilibrium (on the way up), we have one complete wave.



5

The source continues to vibrate, loading more waves into the medium. The **wavelength** *may* be measured as the distance from one crest to the next.