

Wave Type	Basis for Classification	Examples	Diagram/Drawing
Mechanical Waves	Require a medium to travel through	Ripples in a pond, sound waves, seismic waves	
Electromagnetic Waves	Do not require a medium	Light, radio, UV, X-rays, gamma, etc.	
Transverse Waves	Wave motion is perpendicular to the particle motion	EM waves, doing “the wave”, moving a rope up and down	Have crests and troughs
Longitudinal Waves	Wave motion is parallel to the particle motion	Slinky (spring), sound waves	Have compressions and rarefactions
Surface Waves	Particles move both ___ & --- to wave travel	Water waves; boundary of 2 media (air,H₂O)	

Vocabulary to Know:

Wave: a disturbance that carries *energy* through matter or space. Waves can do work. Most waves are caused by vibrating objects (vocal cords).

Medium: the matter through which most waves travel.

