

Lesson Title:	Waves on a String PhET Lab
Standards (TEKS):	7B
Learning Objectives:	<ul style="list-style-type: none"> Investigate the properties of a transverse wave. Observe how waves behave when they have a loose, fixed or no end.

AGENDA	KEY POINTS
1. Do Now 2. PhET Sim 3. Exit Check in	A wave is any disturbance that carries energy through matter or space.

Time	Learning Activity
10	Teacher will ask students to write their own definition for what a wave is on their whiteboard with a partner. After students share their definitions, the teacher will explain that the scientific definition is a disturbance that carries energy through matter or space.
30	Students will complete an inquiry investigation using the Waves on a String PhET Simulation. The students will discuss wave properties to build a common vocabulary and predict the behavior of waves through varying medium and at reflective endpoints. Their lab will be due at the end of class. Guiding Questions <ol style="list-style-type: none"> What are the characteristics of waves? What is amplitude? Tension? Damping? How does the amplitude affect the speed of the wave? Are the waves in the simulation transverse or longitudinal? How do waves behave differently with free and fixed ends? On a post-it note students will respond to the question: What are you still curious about? Teacher will use these the following day.
10	Students will complete an Exit Quiz over their experience with the Waves on a String PhET Simulation.