

<p>75 min</p>	<p>Learning Goals</p> <ul style="list-style-type: none"> • Examples of wave motion: Slinky, Coupled Pendulum, Meter Stick • Wave Terminology: Period, Frequency, Amplitude, Wavelength, Speed, trough, crest • Pulse vs Wave • Wave is a vibration travelling in a medium • The speed of travel depends on the medium and not the wavelength or frequency • Wave Types: Transverse and Longitudinal • Reflection and Transmission of Waves <p>Curriculum Expectations</p> <ul style="list-style-type: none"> • E2.4 investigate the relationship between the wavelength, frequency, and speed of a wave and solve related problems • E3.1 distinguish between longitudinal and transverse waves in different media, and provide examples of both types of waves 	<p>Materials</p> <ul style="list-style-type: none"> • Bobs • String • Meter stick • Slinkys
<p>Minds On...</p> <p>10 min</p>	<ul style="list-style-type: none"> • A coupled pendulum setup is used for this purpose. Refer to the link on the right for theater. • Use meter stick to create standing waves. Hold the middle and move up and down rapidly. • Students are asked to describe their observations. 	<p>Teacher reference: http://tinyurl.com/coupledpendulums</p>
<p>Action!</p> <p>15 minutes</p> <p>50 minutes</p>	<ul style="list-style-type: none"> ⤴ Watch khan academy video http://tinyurl.com/khanacademywaves ⤴ Activity: Distribute long slinkys to students to experiment with waves. <ol style="list-style-type: none"> 1. Send pulse through the slinky 2. Attempt creating standing waves 3. Transverse vs Longitudinal 4. Reflection 5. Transmission by connecting to another groups slinky 6. Compete for faster transmission across the slinky 7. Record all results for the next lesson 	<p>Teacher monitors group progress and offers hints as necessary.</p>
<p>Consolidate Debrief</p>	<p>No debriefing required as the results will be discussed in the next lesson.</p>	
	<p>Home Activity or Further Classroom Consolidation</p> <p>The students are assigned the following homework to print at home http://tinyurl.com/hwlesson2</p>	