

Topic: X,V,a of SHM  
 Subject Area(s): Science

Days: 5  
 Grade(s): 10, 11, 12

**Key Learning: Objects that move in simple harmonic motion can be described in terms of position, velocity, and acceleration and can result in the production of waves that travel through space.**



**Unit Essential Question(s): How can the periodic motion of objects be described?**

<p><b>Concept:</b>  <b>a) properties/quantities of object in SHM</b>  <small>S11.C.3.1.3, 3.1.12.C, 3.4.12.C</small></p>	<p><b>Concept:</b>  <b>b) properties/production of waves</b>  <small>S8.A.2.1.3, 3.1.12.C, 3.4.12.C</small></p>	<p><b>Concept:</b>  <b>c) transfer of energy</b>  <small>S8.A.2.1.1, 3.4.12.C</small></p>
<p><b>Lesson Essential Question(s):</b>                  How can simple harmonic motion be quantified? (A)</p>	<p><b>Lesson Essential Question(s):</b>                  How can you describe mechanical and electromagnetic waves by simple harmonic motion? (A)</p>	<p><b>Lesson Essential Question(s):</b>                  How do traveling waves transfer energy? (A)</p>
<p><b>Vocabulary:</b>                  Simple Harmonic Motion, Oscillation, Amplitude, Frequency, Period</p>	<p><b>Vocabulary:</b></p>	<p><b>Vocabulary:</b>                  Energy, Absorb, Reflect</p>
<p><b>Concept:</b>  <b>d) wave interactions</b>  <small>S8.A.2.1.1, S11.A.3.3.3, 3.1.12.C, 3.4.12.C</small></p>	<p><b>Concept:</b>  <b>e) applications</b>  <small>S8.A.2.1.3, 3.4.12.C</small></p>	<p><b>Concept:</b></p>
<p><b>Lesson Essential Question(s):</b>                  How do waves interact? (A)</p>	<p><b>Lesson Essential Question(s):</b>                  How is simple harmonic motion applied? (A)</p>	<p><b>Lesson Essential Question(s):</b></p>
<p><b>Vocabulary:</b>                  Wave Superposition, Reflection, Refraction, Diffraction, Interference, Resonance</p>	<p><b>Vocabulary:</b>                  Technology,</p>	<p><b>Vocabulary:</b></p>

**Additional Information:**

**Attached Document(s):**