

## Pacing by Week Guide: Unit 7 – Waves & Sound

(Estimated 3 weeks of instruction)

The table below provides pacing guidance for Unit 7 by week. Use this pacing guide, the dynamic pacing calendar, and the lesson plans to maintain pacing in the course that promotes students' successful completion. Please reach out to the Physics team through OnRamps Support if you need support or have any questions.

<b>Key:</b> <b>(C)</b> = Lecture College Assignment – Mandatory, calculated in final college grade <b>(L)</b> = Lab College Assignment – Mandatory, calculated in final college grade <b>(PI)</b> = Peer Instruction activity or contains PI components; contributes to college participation grade, completed in <b>Learning Catalytics</b> . <b>(F)</b> = Flex Activity – Time may be used for recommended activity or reprioritized <b>(HS)</b> = High School Activity – Not part of the college grade, may be omitted or modified as needed		
<b>Week 1</b> Readings: 16.1, 16.2, 16.3, 16.4, Lab Experiment Handout		
Lesson Topic	Lesson	Learning Activity
Simple Harmonic Motion and Pendulums	7.1.1	<ul style="list-style-type: none"> <li>• <b>Begin Quest HW10 (C)</b></li> <li>• 7.1.1.1 Pendulum PhET Activity <b>(HS, 90 min)</b></li> <li>• <b>Pre-Lab 7 (L, PI, 30 min)</b></li> <li>• <b>Lab 7: Oscillations</b> in class Experimental Inquiry <b>(L, 60 – 90 min)</b></li> <li>• <b>Post-Lab 7 (L, outside of class)</b></li> <li>• <b>HW/Flex Time (F)</b></li> </ul>
<b>Week 2</b> Readings: 16.9, 16.10		
Lesson Topic	Lesson	Learning Activity
SHM & Pendulums	7.1.1	<ul style="list-style-type: none"> <li>• <b>7.1.1.2 SHM and Pendulums Peer Instruction (F, PI, 30 min)</b></li> <li>• <b>Exam 6 Retest (C, 45 – 50 min plus upload time – can be completed during lunch/tutorial period as needed)</b></li> </ul>
Wave Properties and Interactions	7.1.2	<ul style="list-style-type: none"> <li>• 7.1.2.1 Slinky Investigation with PhET Sim <b>(HS, 50 min)</b></li> <li>• 7.1.2.2 Wavespeed, Wavelength, and Frequency <b>(HS, PI, 50 min)</b></li> <li>• 7.1.2.3 Wave Superposition and Reflection <b>(HS, PI, 80 min)</b></li> </ul>
<b>Week 3</b> Readings: 17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.7		
Lesson Topic	Lesson	Learning Activity
Sound	7.2.1	<ul style="list-style-type: none"> <li>• <b>7.2.1.1 Sound Investigation (F, 50 min)</b></li> <li>• <b>7.2.1.2 Sound Peer Instruction (PI, 50 min)</b></li> </ul>

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		<ul style="list-style-type: none"> <li>• 7.2.1.3 Standing Waves <b>(HS, PI, 50 min)</b></li> <li>• Quest HW10 Due <b>(C)</b></li> <li>• Review for Exam <b>(F)</b></li> <li>• Exam 7 <b>(C, 45 - 50 min plus upload time)</b></li> </ul>

\*\*The Exam 7 Retest can be offered to students as soon as 1 – 2 weeks after the original exam. Offering the retest is not optional; however, students may opt out if they choose.