

## Pacing Guide

### Unit 3: Conservation Laws: Energy and Momentum

Day	Lab or Activity	Student Worksheet	Lecture -- Class Notes	Classroom Student Assignment	Homework	Assessment
1	Lab 3-1: Conservation of Energy		Lecture 3-1: Energy Transformation and Conservation of Energy	Venn diagram		
2	Lab 3-2: Conservation of Kinetic Energy		Lecture 3-2: Collisions: Elastic and Inelastic			
3	Lab 3-3: Momentum, Impulse, Force and Acceleration		Lecture 3-3: Momentum and Impulse			
4	Lab 3-4: The Big Picture		Lecture 3-4: The Big Picture	Selected problems on force and momentum from textbook		
5	Lab 3-5: The Big Picture – Adding Motion					
6	Lab 3-6: The Big Picture – Adding Energy					
7	Lab 3-7: Collisions with High Bounce Balls			K-W-L activity on Collision with Hi-Bounce Balls		
8						
9	Lab 3-8: Collisions with Different Materials			K-W-L activity		
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11	Lab 3-9: Impulse Momentum Theorem			Mini-board presentations		
12	Lab 3-10: Conservation of Momentum		Lecture 3-5: Conservation of Momentum	Structured practice		
13	Lab 3-11: Work, Force and Energy in Simple Machines			K-W-L activity		
14				Writing assignment		
15	Lab 3-12: Mechanical Advantage: Making Work Easier		Lecture 3-6: Mechanical Advantage: Making Work Easier			
16	Lab 3-13: Work and Power in Simple Machines					
17				K-W-L activity		
18	Lab 3-14: Work and Power in Simple Machine		Lecture 3-7: Work and Power	Structured group guided practice		
19	Lab 3-15: Work and Efficiency in Simple Machines			K-W-L activity		
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Day	Lab or Activity	Student Worksheet	Lecture -- Class Notes	Classroom Student Assignment	Homework	Assessment
21	Lab 3-16: Efficiency		Lecture 3-8: Efficiency			
22	Lab 3-17: Potential + Kinetic Energy for a Falling Body					Performance Assessment: Roller Coasters
23	Lab 3-18: Potential + Kinetic Energy for a Rolling Body					
24	Lab 3-19: Kinetic Energy Needed to "Loop the Loop"					
25	Lab 3-20: Fall Paths					
26						
27						Unit 3 Assessment