

Conceptual Physics Part 2

**How These Activities Support the NGSS
Motion and Forces Science Standards**

	Performance Expectations	Science and Engineering Practices								NGSS Crosscutting Concepts						
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Intro Activity - Exploring Roles Used in POGIL Teams																
PS Activity 10 – Energy of Motion: The Effect of Mass and Speed	MS-PS3-1	X	X		X	X	X	X	X	X	X					X
PS Activity 11 – Potential Energy: Three Examples	MS-PS3-2	X	X	X	X		X	X	X	X	X		X	X		X
PS Activity 12 - When Potential Energy Is Transformed	MS-PS3-5	X	X		X		X	X	X	X	X		X	X		X
CP Activity 10 - Predicting Energy Changes in Systems	HS-PS3-1	X	X		X	X	X	X	X	X	X		X	X		
CP Activity 11 - Using Models to Analyze Energy Transformations	HS-PS3-2	X	X		X	X	X	X	X	X	X		X	X		
PS Activity 13 - Exploring Predictable, Repeating Patterns	MS-PS4-1	X	X		X	X		X	X		X	X				
PS Activity 14 – Why Are Some Waves More Damaging Than Others?	MS-PS4-1	X	X		X		X	X	X	X			X			
PS Activity 15 -More Properties of Waves	MS-PS4-1	X	X		X	X		X	X		X	X				
PS Activity 16 – Waves Everywhere! Water, Sound, and Light	MS-PS4-2	X	X		X		X	X	X	X						
PS Activity 17 – What Happens When Waves Hit Different Kinds of Materials?	MS-PS4-2	X	X		X		X	X	X	X			X			
ESS Activity 4 - To Shake or Not to Shake? Exploring How Earthquakes Behave	MS-PS4-2	X	X		X	X	X		X							X
CP Activity 15 - Mathematical Models of Waves	HS-PS4-1	X	X		X	X	X	X	X	X			X			

Science and Engineering Practices

1	Asking questions (for science) and defining problems (for engineering)
2	Developing and using models
3	Planning and carrying out investigations
4	Analyzing and interpreting data
5	Using mathematics and computational thinking
6	Constructing explanations (for science) and designing solutions (for engineering)
7	Engaging in argument from evidence
8	Obtaining, evaluating, and communicating information

Crosscutting Concepts

1	Patterns
2	Cause and effect
3	Scale, proportion, and quantity
4	Systems and system models
5	Energy and matter
6	Structure and function
7	Stability and change