

Eighth Grade

PA Academic Standards at the Lancaster Science Factory Exhibits

Physics (Organizing category (B) under standard category Physical Sciences: Chemistry and Physics (3.2.)) and Chemistry (Organizing category (A))

[X] = this exhibit essentially fulfills the standard statement however the exhibit may require additional explanation from the teacher.

Topic	Exhibit	The Strands				
		Physics 1. Force & Motion of Particles and Rigid Bodies	Physics 2. Energy Storage and Transformations: Conservation Laws	Physics 4. Electrical and Magnetic Energy	Physics 6. Unifying Themes	Chemistry 3. Matter & Energy
Acoustics	Physics of Sound: Bongophone				[X]	
	Physics of Sound: Drumbone				[X]	
	Whisper Dishes				[X]	
	Whisper Tubes				[X]	X
Energy and Magnetism	Crank Power		[X]		X	X
	Electrical Circuit				X	
	Electrical Conductors & Insulators			[X]	X	
	Light It Up				X	
	Magnetic Field Visualization: At the Poles				X	
	Magnetic Field Visualization: Seeing Magnetic Fields				[X]	
	Magnetic Sculpture				X	
Rockin' Radiation				X	X	
Fluid Dynamics	Airplay	[X]				
	Dam the Creek	[X]			X	
	Flight Deck				X	
	Tennis Ball Launcher	[X]	[X]			[X]
	Parachute Launcher	[X]			X	[X]
	Water Table: Hero's Fountain				X	
Light and Color	Bubble Mirrors				[X]	
	Color Filters				[X]	X
	Kaleidoscope					[X]
	Light Room: Colored Shadows					X
	Light Room: Lenses, Mirrors and Filters				[X]	X
Mechanics and Motion	Scope on a Rope				X	[X]
	Can You Lift 100 Pounds?				X	[X]
	Gear Power				X	[X]
	Gravity Racer		X		X	[X]
	Gravity Well		[X]		X	[X]
	Kinetic Energy Machine		X			X
	Leverage Learning				X	
	Newton's Cradle	X	[X]			X
	Pendulum Booth: Compare Amplitude/Mass/Length	[X]	[X]		[X]	[X]
	Pendulum Booth: Magnetic Pendulum		[X]			[X]
	Pendulum Booth: Pegboard Pendulum	[X]	[X]		[X]	[X]
	Pendulum Booth: Pendulum Snake		[X]			[X]
	Pendulum Booth: Sand Pendulums		[X]			[X]
	Race Track Table: Galileo Track		X		[X]	X
	Race Track Table: High Road ~ Hilly Road		X		[X]	X
Race Track Table: High Road ~ Low Road		X		[X]	X	
Race Track Table: Identical Tracks	[X]	X		[X]	X	
Roller Coaster	[X]	X		X	X	
Super Bounce	[X]	X		X	X	
Puzzles and Brain Teasers	K'NEX Mini-Racers		[X]		[X]	[X]
Structural Engineering	Catenary Arch				X	
	Ceiling Beam				[X]	
	Earthquake		[X]		[X]	
	Truss Bridge				[X]	