

Fourth Grade
PA Academic Standards at the Lancaster Science Factory Exhibits
Physics

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

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

Topic	Exhibit	The Strands					
		1. Force & Motion of Particles and Rigid Bodies	2. Energy Storage and Transformations: Conservation Laws	3. Heat/Heat Transfer	4. Electrical and Magnetic Energy	5. Nature of Waves (Sound and Light Energy)	6. Unifying Themes
Acoustics	Physics of Sound: Bongophone		[X]			X	[X]
	Physics of Sound: Drumbone		[X]			X	[X]
Energy and Magnetism	Crank Power		X				X
	Electrical Circuit		X		X		X
	Electrical Conductors & Insulators		[X]				[X]
	Light It Up		X	X			X
	Magnetic Field Visualization: At the Poles				X		
	Magnetic Field Visualization: Liquid Spikes				X		
	Magnetic Field Visualization: Seeing Magnetic Fields				X		
	Magnetic Sculpture				X		
Rockin' Radiation			X				
Fluid Dynamics	Tennis Ball Launcher	X	X				X
	Minimal Surfaces					[X]	
Light and Color	Color Filters					X	
	Kaleidoscope					X	
	Light Room: Color Change-Up		[X]				
	Light Room: Colored Shadows		[X]				
	Light Room: Lenses, Mirrors and Filters					X	
Scope on a Rope					[X]		
Mechanics and Motion	Gear Power	X					
	Gravity Racer	X	X				X
	Gravity Well					[X]	
	Kinetic Energy Machine		X				X
	Newton's Cradle	X	X				X
	Pendulum Booth: Magnetic Pendulum	X			X		
	Pendulum Booth: Pegboard Pendulum	X	X				X
	Pendulum Booth: Pendulum Snake	X					
	Pendulum Booth: Sand Pendulums	X					
	Race Track Table: Galileo Track	X	X			X	X
	Race Track Table: High Road ~ Hilly Road	X	X			X	X
	Race Track Table: High Road ~ Low Road	X	X			X	X
	Race Track Table: Identical Tracks	X	X			X	X
Roller Coaster	X	X				X	
Super Bounce		X				X	
Puzzles and Brain Teasers	Geometric Shapes				[X]		
	K'NEX Mini-Racers	X	[X]				[X]
Structural Engineering	Earthquake		[X]				