

# First Grade

## PA Academic Standards at the Lancaster Science Factory Exhibits

### Physics and Chemistry

*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			
		Physics 1. Force & Motion of Particles and Rigid Bodies	Physics 5. Nature of Waves (Sound and Light Energy)	Chemistry 1. Properties of Matter	Chemistry 5. Unifying Themes
Energy and Magnetism	Magnetic Field Visualization: At the Poles	X		[X]	
	Magnetic Field Visualization: Liquid Spikes	X			
	Magnetic Field Visualization: Seeing Magnetic Fields	X			
	Magnetic Sculpture	X			[X]
Fluid Dynamics	Airplay	X			
	Flight Deck	X			
	Tennis Ball Launcher	X			
	Minimal Surfaces		[X]	[X]	
	Parachute Launcher	X			
	Water Table: Hero's Fountain	X			
	Water Table: Water Tornado	X			
Light and Vision	Bubble Mirrors		X		
	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	Can You Lift 100 Pounds?	X			
	Gear Power	X			
	Gravity Racer	X			
	Gravity Well	X			
	Leverage Learning	X			
	Newton's Cradle	X			
	Pendulum Booth: Compare Amplitude/Mass/Length	X			
	Pendulum Booth: Magnetic Pendulum	X			
	Pendulum Booth: Pegboard Pendulum	X			
	Pendulum Booth: Pendulum Snake	X			
	Pendulum Booth: Sand Pendulums	X			
	Race Track Table: Galileo Track	X			
	Race Track Table: High Road ~ Hilly Road	X			
	Race Track Table: High Road ~ Low Road	X			
	Race Track Table: Identical Tracks	X			
	Roller Coaster	X			
Super Bounce	X				
Puzzles and Brain Teasers	Cyclograph	[X]			
	Hyperbolic Slot	[X]			
	K'NEX Mini-Racers	X			
Structural Engineering	Earthquake	[X]			