

Eighth Grade
PA Academic Standards at the Lancaster Science Factory Exhibits
 Technology and Engineering Education (Standard category (3.4.)), Part 1

Topic	Exhibit	A. The Scope of Technology			B. Technology and Society				C. Technology and Engineering Design		
		Strand 1. Characteristics of Technology	Strand 2. Core Concepts of Technology	Strand 3. Technology Connections	Strand 1. Effects of Technology	Strand 2. Technology and Environment	Strand 3. Society and Development of Technology	Strand 4. Technology and History	Strand 1. Design Attributes	Strand 2. Engineering Design	Strand 3. Research & Development, Invention & Innovation, Experimentation/Problem Solving and Troubleshooting
Acoustics	Physics of Sound: Bongophone		X								
	Physics of Sound: Drumbone		X								
Energy and Magnetism	Crank Power	X	X	X			X				X implied
	Electrical Circuit		X								
	Electrical Conductors & Insulators		X	X							
	Light It Up	X	X		X	X	X				X
	Magnetic Field Visualization: At the Poles			X							
	Magnetic Field Visualization: Seeing Magnetic Fields			X							
	Magnetic Sculpture			X							
Rockin' Radiation	X	X	X	X	X		X implied			X	
Fluid Dynamics	Dam the Creek	X		X	X				X	X	X
	Flight Deck			X					X	X	X
	Tennis Ball Launcher			X							
	Minimal Surfaces			X							X
Parachute Launcher	X		X								
Light and Color	Color Filters			X							
	Light Room: Lenses, Mirrors and Filters			X implied							
Light Room: Einstein's Face Illusion			X implied								
Mechanics and Motion	Can You Lift 100 Pounds?	X							X		
	Gear Power	X		X					X	X	
	Gravity Racer			X							
	Gravity Well			X							
	Leverage Learning			X			X				
Roller Coaster			X					X	X		
Puzzles and Brain Teasers	K'NEX Building Zone									X	
	K'NEX Mini-Racers								X		X
Structural Engineering	Catenary Arch			X					X	X	X
	Ceiling Beam	X		X							
	Earthquake	X		X		X			X	X	X
	Truss Bridge	X		X		X	X		X	X	X