

Stony Brook University I-STEM Engineering Teaching Labs Curriculum Alignment for High School

NYS P-12 Science Learning Standards and NGSS

Only Performance Expectations listed. Please refer to the NYSSLS standards for corresponding DCI, CCC, and SEP.

			Light Strobe	Home Security	Night Light LED	Audio Laser	Metal Detector	
Structure and Properties of Matter & Chemical Reactions	HS-PS1	1						
		2						
		3						
		4						
		5		✓	✓	✓	✓	✓
		6						
		7						
		8						
		9						
		10						
		11						
		12						
Forces and Interactions	HS-PS2	1						
		2						
		3						
		4						
		5						
		6		✓	✓	✓	✓	✓
Energy	HS-PS3	1						
		2						
		3		✓	✓	✓	✓	✓
		4						
		5		✓	✓	✓	✓	✓
		6		✓	✓	✓	✓	✓
Waves and Electromagnetic Radiation	HS-PS4	1	✓		✓			
		2	✓	✓	✓	✓	✓	
		3	✓					
		4						
		5	✓					
		6						
NYS Regents Physics Curriculum								
	Key Idea	Performance Indicator	Light Strobe	Home Security	Night Light LED	Audio Laser	Metal Detector	
STANDARD 1: Analysis, Inquiry, and Design								
	Mathematical Analysis	1	✓	✓	✓	✓	✓	
		2	✓	✓	✓	✓	✓	
		3	✓	✓	✓	✓	✓	
	Scientific Inquiry	1	✓	✓	✓	✓	✓	
		2	✓	✓	✓	✓	✓	
		3	✓	✓	✓	✓	✓	
	Engineering Design	1	✓	✓	✓	✓	✓	
STANDARD 2: Information Systems								
		1	✓	✓	✓	✓	✓	
		2	✓	✓	✓	✓	✓	
		3	✓	✓	✓	✓	✓	
STANDARD 4: The Physical Setting								
	4	4.1	✓	✓	✓	✓	✓	
		4.1a	✓	✓	✓	✓	✓	
		4.1b	✓	✓	✓	✓	✓	
		4.1j	✓	✓	✓	✓	✓	
		4.1l	✓	✓	✓	✓	✓	
		4.1m	✓	✓	✓	✓	✓	
		4.1n	✓	✓	✓	✓	✓	
		4.1o	✓	✓	✓	✓	✓	
		4.1p	✓	✓	✓	✓	✓	

			4.3b	✓			✓	
			4.3g	✓		✓		
			4.3n	✓				
STANDARD 6: Interconnectedness								
		1		✓	✓	✓	✓	✓
		2		✓	✓	✓	✓	✓
		3		✓	✓	✓	✓	✓
		4						
		5		✓	✓	✓	✓	✓
		6		✓	✓	✓	✓	✓
STANDARD 7: Interdisciplinary Problem Solving								
		1		✓	✓	✓	✓	✓
		2		✓	✓	✓	✓	✓
AP Physics 1								
				Strobe Light	Home Security	Night Light LED	Audio Laser	Metal Detector
Content Area 8: Electric Charge and Electric Force	1	B		✓	✓	✓	✓	✓
Content Area 9: DC Circuits	1	B		✓	✓	✓	✓	✓
		E		✓	✓	✓	✓	✓
AP Physics 2								
				Strobe Light	Home Security	Night Light LED	Audio Laser	Metal Detector
Content Area 3: Electric Force, Field, and Potential	1	B		✓	✓	✓	✓	✓
Content Area 4: Electric Circuits	1	B		✓	✓	✓	✓	✓
		E		✓	✓	✓	✓	✓
	4	B		✓	✓	✓	✓	✓
		C		✓	✓	✓	✓	✓
		E		✓	✓	✓	✓	✓
Content Area 6: Geometric and Physical Optics	6	A		✓			✓	