

	Mighty Currents	Hand-cranked Generator	Electricity Bench	Optics Lab	Mixing Colors	Mystery Shadows	Soap Film Rainbow	Color Banner	Seasons Lab	Orrery	Corollis Fountain	Snow Chamber	Dew Point	The Sound Lab	Patterns of Movement	Pendulum Lab	Peg and Pendulum	Lissajous' Figures	Lariat Chain	Ripple Tank	Musical Ratios	Waves on a String	MacFourier	Mobiles Lab	Pendulum Clock	Sawtooth Grapher	Stress Analyzer	Variable Length Pendulum	Vibrations and Frequencies	
Benchmarks Grades K-4 (E)																														
Science as Inquiry (SI-E)																														
A. The abilities necessary to do scientific inquiry.																														
1. Asking appropriate questions about the environment.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Planning and/or designing and conducting a scientific investigation.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Communicating that observations are made with one's senses.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Employing equipment and tools to gather data and extend the sensory observations.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5. Using data, including numbers and graphs, to explain observations and experiments.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6. Communicating observations and experiments in oral and written formats.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
7. Utilizing safety procedures during experiments.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
B. Understanding Scientific Inquiry.																														
1. Categorizing questions.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Using appropriate experiments depending on the questions to be explored.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Choosing appropriate equipment and tools to conduct an experiment.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Developing explanations by using observations and experiments.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5. Representing the results of experiments.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
6. Reviewing and asking questions about the results of investigations.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Physical Science (PS-E)																														
A. Properties of Objects and Materials.																														
1. Observing, describing, and classifying objects by properties.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Measuring properties of objects using appropriate materials, tools, & technology.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Observing and describing the objects by properties of the materials from which made.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Describing the properties of the different states of matter and state changes.												x	x																	
5. Creating mixtures and separating them based on differences in properties.																														
B. Position and Motion of Objects.																														
1. Observing & describing the position of an object relative to another or background.				x	x	x			x	x					x	x	x									x				
2. Exploring and recognizing force over time.															x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3. Describing an object's motion by tracing and measuring its position over time.															x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4. Investigating and describing motion related to force and mass of the object.															x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
C. Forms of Energy.																														
1. Experimenting and communicating vibration produces sound and rate varies pitch.																		x				x	x	x						x
2. Investigating and describing how light travels and what happens when it strikes an object.				x	x	x	x	x																						
3. Investigating and describing heat production and conduction.	x	x	x																											
4. Investigating and describing how electricity travels in a circuit.	x	x	x																											
5. Investigating and communicating that magnetism & gravity can exert forces...	x	x	x							x	x																			
6. Exploring and describing simple energy transformations.	x	x	x															x		x	x	x	x		x	x	x	x	x	

