Benchmarks Grades 5-8 (M)	Mighty Currents	Hand-cranked Generator	Electricity Bench	Optics Lab	Mixing Colors	Mystery Shadows	Soap Film Rainbow	Color Banner	Seasons Lab	Orrery	Coriollis 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
Science as Inquiry (SI-E)																													
A. The Abilities Necessary to do scientific inquiry.																													
1. Identifying questions that can be used to design 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
2. 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
3. Using mathematics and appropriate tools and techniques to gather,	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
analyze, and interpret data.																													
4. Developing descriptions, explanations, and graphs using data.	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. Developing models and predictions using the relationships between	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
data and explanations.																													
6. Comparing alternative explanations and predictions.	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. Communicating scientific procedures, information, and explanations.	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
8. Utilizing safety procedures during scientific 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
B. Understanding scientific inquiry.																													
1. Recognizing that different kinds of questions guide different kinds of	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
scientific investigations.																													
2. Communicating that current scientific knowledge guides scientific	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
investigations.																													
3. Understanding that math, technology, and scientific techniques used in	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
an experiment can limit or enhance the accuracy of scientific knowledge.																													
4. Using data and logical arguments to propose, modify, or elaborate on	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
principles and models.																													
5.Understanding that scientific knowledge is enhanced through peer review,	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
alternative explanations, and constructive criticism.																													
6. Communicating that scientific investigations can result in new ideas, new	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
methods or procedures, and new technologies.																													
7. Understanding that scientific development/technology is driven by societal	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
needs and funding.																													