

	Mighty Currents	Hand-cranked Generator	Electricity Bench	Optics Lab	Mixing Colors	Mystery Shadows	Soap Film Rainbow	Color Banner	Seasons Lab	Orrery	Coriolis 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	Mobles Lab	Pendulum Clock	Sawtooth Grapher	Stress Analyzer	Variable Length Pendulum	Vibrations and Frequencies
Benchmarks Grades 5-8 (M)																													
Earth and Space Science (ESS-M)																													
A. Structure of the Earth.																													
1. Understanding that the Earth is layered by density with an inner and outer core, a mantle, and a thin outer crust.																													
2. Understanding that the Earth's crust and solid upper mantle are dividing plates that move in response to convection currents (energy transfers) in the mantle.																													
3. Investigating the characteristics of earthquakes and volcanoes and identifying zones where they may occur.																													
4. Investigating how soils are formed from weathered rock and decomposed organic material.																													
5. Identifying the characteristics and uses of minerals and rocks and recognizing that rocks are mixtures of minerals.																													
6. Explaining the processes involved in the rock cycle.																													
7. Modeling how landforms result from the interaction of constructive and destructive forces.									X	X	X	X	X					X		X		X				X	X		X
8. Identifying the man-made & natural causes of coastal erosion and the steps taken to combat it.																													
9. Compare and contrast topographic features of the ocean floor to those formed above sea level.																													
10. Explaining (illustrating) how water circulates--on and through the crust, in the oceans, and in the atmosphere--in the water cycle.									X	X	X	X	X																
11. Understanding that the atmosphere interacts with the hydrosphere to affect weather and climate conditions.									X	X	X	X	X																
12. Predicting weather patterns through use of a weather map.									X																				
B. Earth History.																													
1. Investigating how fossils show the development of life over time.																													
2. Devising a model that demonstrates supporting evidence that the Earth existed for a vast period of time.																													
3. Understanding that earth processes such as erosion and weathering affect the Earth today and are similar to those which occurred in the past.									X	X	X	X	X																
C. Earth in the Solar System.																													
1. Identifying the characteristics of the sun and other stars.									X	X																			
2. Comparing and contrasting the celestial bodies in our solar system.									X	X																			
3. Investigating the force of gravity and the ways gravity governs motion									X	X	X			X	X	X	X	X	X	X			X	X	X				

