

Also covered in Grades	<b>Earth and Space</b>	Also covered in Grades	<b>Life</b>	Also covered in Grades	<b>Physical</b>
4	Geological changes to earth over time-Pangea	6,7	Review Meiosis and Mitosis		Motion of object judged in terms of reference point
4	Motion of plate tectonics/Cause and effect				Motion of object/position, direction, speed
4	Folding, breaking, uplifting of rock causes rearrangement			4	Students design cars/robots
4	Constructive/destructive forces that affect creation of landforms				Physics of sports
	Research geologic origins of mountain ranges and islands				Design an amusement park
4,7	Rock cycle				Speed/Velocity
	Heat and forces that drive plate motion				Pendulums
	Use models to identify surface and interior of Earth- topographical maps and satellite images			5	Simple machines change direction and speed
	Thermal energy/volcanoes			5	Mechanical advantage
				5	Laws of Motion
	Interactions of matter and energy in lithosphere, hydrosphere, and atmosphere <i>GCS Grade 7</i>			4	Flight/Rockets
	Relationship of the absorption properties of hydrosphere, and atmosphere <i>GCS Grade 7</i>				Gravitational and Electrical forces as universal forces
	Limited supply of fresh water can be depleted or polluted <i>GCS Grade 7</i>			5	Difference between mass and weight
6	Global warming <i>GCS Grade 7</i>				
4	Compare/contrast tornadoes, floods, droughts, hurricanes to changes in water cycle <i>GCS Grade 7</i>				
4	Create a classroom weather station- collect data for humidity, temp. wind speed/direction <i>GCS Grade 7</i>				<b><u>Integration of all middle school science learning</u></b>
4	Use weather data to create a weather map <i>GCS Grade 7</i>				
4	Read local, state, and national weather maps <i>GCS Grade 7</i>			4	Design a solution or product - entire process
4	Relationship of cloud types to weather patterns <i>GCS Grade 7</i>				from conception to marketing and sales
4	Make weather predictions based on clouds <i>GCS Grade 7</i>				
					Technological advances influenced by scientific
4,7	Motion of objects in solar system - relate to days, years, seasons, eclipses, tides and moon cycles <i>GCS Grade 7</i>				knowledge affect quality of life
4,7	Gravity governs motion in solar system <i>GCS Grade 7</i>				
4,7	Formation of stars <i>GCS Grade 7</i>				
				4	How can temperature of an object be raised <i>GCS Grade 5</i>
					How can thermal energy be transferred <i>GCS Grade 5</i>
6,7	Formulate questions to guide scientific investigation <i>GCS Grade 7</i>			6	Potential and kinetic energy <i>GCS Grade 7</i>
6,7	Construct a Hypothesis <i>GCS Grade 7</i>			6	Fossil fuels <i>GCS Grade 7</i>
7	Simple dependent (manipulated) and independent variables <i>GCS Grade 7</i>			4,6	Energy - Renewable and Nonrenewable <i>GCS Grade 7</i>
7	Design an experiment for NASA - identify variables <i>GCS Grade 7</i>			6	Ways to produce electrical energy <i>GCS Grade 7</i>
7	Learn the value of changing only one variable at a time in a scientific investigation <i>GCS Grade 7</i>			6	Conservation/Recycling to slow energy depletion <i>GCS Grade 7</i>
7	Use graphs, tables, and charts to infer mathematical relationships among variables (speed, momentum) <i>GCS Grade 7</i>			4,6	Responsible use of energy <i>GCS Grade 7</i>
7	Analyze data to determine validity <i>GCS Grade 7</i>			6	Electrical energy can be transformed into heat,
7	Look for alternative ways to interpret data <i>GCS Grade 7</i>				light, sound and chemical energy <i>GCS Grade 7</i>
7	Be wary of conclusions/statements that go beyond evidence <i>GCS Grade 7</i>				
				6	Waves transfer energy <i>GCS Grade 7</i>
	Role of sample size and control in scientific investigation			6	Vibrations produce wavelike disturbances <i>GCS Grade 7</i>
6	Scientific knowledge is always subject to modification and new interpretation as data changes			6	Waves in the electromagnetic spectrum <i>GCS Grade 7</i>
	Accuracy and honesty in reporting science, including failures			3,6	Reflection and refraction of light <i>GCS Grade 5</i>
	Limitation of scientific findings affect the validity of conclusions			3,6	Reflection and refraction of sound <i>GCS Grade 5</i>
6	Use math skills to interpret quantitative data			3,6	Absorption of light and sound <i>GCS Grade 5</i>
6	Read, construct, interpret data in various forms-tables, charts, graphs produced by learner and others			3,6	Bending of light <i>GCS Grade 5</i>
	Ethical responsibility of researcher - safety of all subjects			3,6	Relationship of vibration to pitch <i>GCS Grade 5</i>
	Rights of subjects in a scientific investigation			3,6	Sound and light waves <i>GCS Grade 5</i>