8th Grade Science Timeline

Macon County   2015-2016

1st 9 Weeks

Standard	Learning Target	Resources	T	M
Bench Mark 1				
0807.Inq.1	I can design a simple experiment. (P) I can define the terms "control" and "variable". (K) I can identify the control and variables in an experiment. (K)	Chapter 1		
0807.Inq.2	I can match laboratory tools with their appropriate function. (K) I can choose the appropriate tools and procedures for an experiment. (K)	Chapter 1		
0807.Inq.3	I can define the words "interpret" and "translate". (K) I can construct a graph when given a set of data. (P) I can answer questions using a graph as text evidence. (R,S)	Chapter 1		
0807.Inq.4	I can define the terms "conclusion" and "cause and effect".)K) I can use evidence to draw a conclusion. (S) I can use evidence to identify the cause and effect. (K,R,S)	Chapter 1		
0807.Inq.5	I can define the term "bias". (K) I can analyze data and identify bias and experimental error. (K,R,S)	Chapter 1		
0807.T/E.1	I can define the term "prototype". (K) I can match laboratory tools with their appropriate function. (K) I can build, test, and evaluate a working prototype. (R,S,P)	Chapter 1		
0807.T/E.2	I can identify and explain the steps of the Engineering Design Process. (K,R) I can define the term "protocol". (K) I can evaluate a protocol to determine if the engineering design process was successfully applied. (R)	Chapter 1		
0807.T/E.3	I can define the terms "intended benefit" and "unintended consequence". (K) I can identify examples of intended benefits/unintended consequences of a technology.	Chapter 1		

Standard	Learning Target	Resources	T	M
	(K,R,S)			
0807.T/E.4	I can define the term "differentiate". (K) I can define the terms "adaptive" and "assistive". (K) I can differentiate between adaptive and assistive engineered products. (R) I can classify a technology as an example of bioengineering. (R,S)	Chapter 1		
0807.9.7	I can define density, mass, and volume. (K) I can explain the relationship between density, mass, and volume. (R) I can apply the density formula to solve for density of an object. (S)	Chapter 1 & 7		
0807.9.8	I can describe a physical and chemical change. (K) I can interpret whether a physical or chemical change has occurred in a scientific investigation. (R)	Chapter 7 & 13)		
0807.12.4	I can define the terms "mass" and "weight". (K) I can use the appropriate tools and units to determine mass and weight. (S) I can compare and contrast mass and weight. (R)	Chapter 1 & 7		
Bench Mark 2				
0807.9.3	I can define the terms "elements", "compounds", "symbols", and "formulas". (K) I can classify common substances as elements or compounds based on their symbols or formulas. (R)	Chapter 9		
0807.9.4	I can define a mixture and compound based on their chemical composition. (K) I can differentiate between a mixture and a compound using their chemical composition. (R)	Chapter 9		
0807.9.6	I can identify the states of matter. (K) I can compare/contrast the particle arrangement and motion in the states of matter. (R) I can create a drawing representing the states of matter. (P)	Chapter 8		

2nd 9 Weeks

Standard	Learning Target	Resources	T	M
0807.9.1	I can define what an atom is. (K) I can recognize that all matter is made of atoms. (K)	Chapter 10		
Bench Mark 3				
0807.9.2	I can define chemical change. (K) I can identify outcomes of all chemical changes. (New substances/ property changes) (K)	Chapter 13		
0807.9.8	I can describe a physical and chemical change. (K)	Chapter 13		

Standard	Learning Target	Resources	T	M
	I can interpret whether a physical or chemical change has occurred in a scientific investigation. (R)			
0807.9.9	I can use the periodic table to determine an elements atomic number, atomic mass, atomic weight, symbol, name, period and group. (S) I can determine an elements properties based on its arrangement on the periodic table.	Chapter 11		
0807.9.10	I can define "reactants" and "products". (K) I can identify the products and reactants in a chemical equation. (K)	Chapter 13		
0807.9.11	I can explain the Law of Conservation of Mass. (R) I can count the number of atoms in the reactants and products on each side of the equation to determine if the Law of Conservation of Mass has been followed.	Chapter 13		

3rd 9 Weeks

Standard	Learning Target	Resources	T	M
Bench Mark 4				
0807.9.5	I can define the term "atmosphere". (K) I can describe the chemical makeup of the atmosphere using and creating a graph and chart. (S,P)	Chapter 15		
0807.9.12	I can define the terms "acids" and "bases". (K) I can list basic properties of acids and bases. (K) I can use indicators to determine whether a substance is an acid or a base. (S)	Chapter 14		
0807.12.1	I can define "electromagnet". (K) I can define "electricity" and "magnet". (K) I can recognize that electricity can be produced using a magnet and coil wire. (K)	Chapter 16		
0807.12.2	I can describe the basic principles and parts of an electromagnet. (K) I can construct a working electromagnet. (P)	Chapter 16		
0807.12.3	I can define "magnetic field". (K) I can compare and contrast the earth's magnetic field and the fields of a magnet and electromagnet. (R) I can recognize magnetic fields of the earth, a magnet, and an electromagnet. (K)	Chapter 16		
0807.12.5	I can interpret the relationship between the mass of an object and the amount of gravitational attraction. (R) I can interpret the relationship between the distance of the objects and the amount of gravitational	Chapter 15		

Standard	Learning Target	Resources		
	attraction. (R)			
0807.12.6	I can illustrate how gravity controls the motion of objects in the solar system. (R)	Chapter 15		
Bench Mark 5				
0807.5.1	I can explain how a simple classification key is used. (R) I can use a simple classification key (S)	Chapter 2		
0807.5.2	I can identify structural, behavioral, and physiological adaptations in organisms. (K) I can use structural, behavioral, and physiological adaptations to predict which organisms are most likely to survive in a particular environment. (R)	Chapter 3		
0807.5.3	I can analyze data on populations of organisms and make predictions about survival in certain environments. (R)	Chapter 3		
0807.5.4	I can describe the earth's biodiversity. (K) I can identify the reasons of importance of biodiversity. (K) I can illustrate or create a poster/model representing the biodiversity of an ecosystem. (R/P)	Chapter 6		
0807.5.5	I can define fossils and sedimentary rock. (K) I can define relative age. (K) I can use a geologic and fossil record to determine and compare relative age of a fossil in sedimentary rock. (S,R)	Chapter 5		

4th   9 Weeks

Standard	Learning Target	Resources	T	M
0807.5.2	I can identify structural, behavioral, and physiological adaptations in organisms. (K) I can use structural, behavioral, and physiological adaptations to predict which organisms are most likely to survive in a particular environment. (R)	Chapter 4		
0807.5.3	I can analyze data on populations of organisms and make predictions about survival in certain environments. (R)	Chapter 4		
0807.5.4	I can describe the earth's biodiversity. (K) I can identify the reasons of importance of biodiversity. (K) I can illustrate or create a poster/model representing the biodiversity of an ecosystem. (R/P)	Chapter 6		

| 0807.5.5 | I can define fossils and sedimentary rock. (K)
 I can define relative age. (K)
 I can use a geographic and fossil record to determine and compare relative age of a fossil in sedimentary rock. (S,R) | Chapter 5 | | |