Name: ___________________________________ Period: _______________

You are given a CGA every quarter that tests your growth as a student. Before delving into the next unit, we are going to pause to start this review packet. On the left are the standards you must know. Write a full and accurate description/answer of each standard along with a picture that helps you remember the concepts. The description should cover all aspects of the standard, and should be a minimum of 3 sentences. Each standard is worth 5 points…3 for the description and 2 for the picture. That means that this packet is worth 100 points, or a test grade. TAKE IT SERIOUSLY.

MATTER

Florida Standard	Pg. #	Description	Picture
SC.912.P.8.1 Differentiate among the four states of matter.		Ex. In this one, you would talk about the four states of matter….solid, liquid, gas, plasma. Describe them, compare and contrast them, draw each of them.	
SC.912.P.8.10 Describe oxidation-reduction reactions in living and non-living systems.			
SC.912.P.8.11 Relate acidity and basicity to hydronium and hydroxyl ion concentration and pH.			
SC.912.P.8.12 Describe the properties of the carbon atom that make the diversity of carbon compounds possible.			
SC.912.P.8.13 Identify selected functional groups and relate how they contribute to properties of carbon compounds.			

SC.912.P.8.2 Differentiate between physical and chemical properties and physical and chemical changes of matter.			
SC.912.P.8.3 Explore the scientific theory of atoms (also known as atomic theory) by describing changes in the atomic model over time and why those changes were necessitated by experimental evidence.			
SC.912.P.8.5 Relate properties of atoms and their position in the periodic table to the arrangement of their electrons.			
SC.912.P.8.6 Distinguish between bonding forces holding compounds together and other attractive forces, including hydrogen bonding and van der Waals forces.			
SC.912.P.8.7 Interpret formula representations of molecules and compounds in			

terms of composition and structure.			
SC.912.P.8.8 Characterize types of chemical reactions, for example: redox, acid-base, synthesis, and single and double replacement reactions.			

ENERGY

SC.912.P.10.7 Distinguish between endothermic and exothermic chemical processes.			
SC.912.P.10.10 Compare the magnitude and range of the four fundamental forces (gravitational, electromagnetic, weak nuclear, strong nuclear).			
SC.912.P.10.6 Create and interpret potential energy diagrams, for example: chemical reactions, orbits around a central body, motion of a pendulum.			
SC.912.P.10.2 Explore the Law of Conservation of Energy by differentiating among open, closed, and isolated systems and			

explain that the total energy in an isolated system is a conserved quantity.			

MOTION

SC.912.P.12.3 Interpret and apply Newton's three laws of motion.			
SC.912.P.12.4 Describe how the gravitational force between two objects depends on their masses and the distance between them.			
SC.912.P.12.5 Apply the law of conservation of linear momentum to interactions, such as collisions between objects.			
SC.912.P.12.12 Explain how various factors, such as concentration, temperature, and presence of a catalyst affect the rate of a chemical reaction.			
SC.912.P.12.11 Describe phase transitions in terms of kinetic molecular theory.			