**Unit 1: Matter, Energy, & Temp**

Joke: I would tell you a good chemistry joke but all the best ones ARGON…hehe.

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**A. Concept Terms! Points (10)**

**Below is a list of vocabulary terms from Topic 1. You should know the definition and facts related to each term if you want an A on this topic! Each vocab word should be highlighted in your “I WILL” statements.**

**Part 2: Energy & Temperature**

1. Fusion/Melting
2. Freezing
3. Condensing
4. Boiling/Vaporization
5. Evaporation
6. Sublimation
7. Deposition
8. Exothermic Phase Change
9. Endothermic Phase Change
10. Temperature
11. Kinetic Energy
12. Potential Energy
13. Heat (q)
14. Joules
15. Heat of vaporization of water
16. Heat of fusion of water
17. Specific Heat (Capacity) of water

**Part 1: Matter & Phases**

1. Solid
2. Liquid
3. Gas
4. Plasma
5. Pure Substance
6. Mixture
7. Element
8. Compound
9. Homogenous Mixture
10. Solubility
11. Heterogeneous Mixture
12. Aqueous Solution
13. Physical Property
14. Physical Change
15. Chemical Change
16. Chemical Property

**B. “I will” statements. Points (30)**

**Part1:**

1. Tell the difference between the four main **states of matter** in terms of particle movement.\_\_\_\_\_\_\_\_\_\_
2. How is **matter** classified?\_\_\_\_\_\_\_\_\_
3. Define and list 4 **physical properties** of matter and 4 **chemical properties** of matter.\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Define and list 4 **physical changes** of matter and 4 **chemical changes** of matter. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Identify at least 5 **indicators** of a chemical change.\_\_\_\_\_\_\_\_\_\_\_\_
6. Identify 3 types of solutions in terms of **concentrations** and label a **solubility** **curve** (graph).\_\_\_\_\_\_\_\_\_
7. What are fours ways to increase **solubility**?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Explain the 4 **colligative** **properties** of solutions.\_\_\_\_\_\_\_\_\_\_\_\_

**Part 2:**

1. Explain what happens during the 6 different **phase changes** in terms of particle movement.\_\_\_\_\_\_\_\_\_
2. Draw and interpret **phase change** **diagrams** (heating and cooling curves)\_\_\_\_\_\_\_\_\_
3. Where does Kinetic & Potential energy change on the heating and cooling curve?\_\_\_\_\_
4. What is the relationship between **temperature** and **kinetic energy?**\_\_\_\_\_\_\_\_
5. Draw and interpret **vapor pressure** **diagrams**\_\_\_\_\_\_\_\_\_
6. Draw and interpret **phase** **diagrams** of water and carbon dioxide\_\_\_\_\_\_\_\_\_\_
7. Know temperature conversion between **Kelvin** and **Celsius** units.\_\_\_\_\_\_\_\_
8. Use **heat of vaporization** and **heat of fusion** for water to solve heat equations.\_\_\_\_\_\_\_\_\_
9. Calculate the **specific heat of wate**r in all three phases (solid, liquid, gas)\_\_\_\_\_\_\_\_\_

**C. Interactive Notebook**: **Points (10)**

Part 1:\_\_\_\_\_\_\_\_\_\_\_\_\_

Part 2:\_\_\_\_\_\_\_\_\_\_\_\_\_

**D. Worksheets Completed: Points (15)**

Part 1:\_\_\_\_\_\_\_\_\_\_\_\_\_(pgs 1, 2, 3, and circled numbers on 4)

Part 2:\_\_\_\_\_\_\_\_\_\_\_\_\_(pgs 4, 5, and 6)

**E. Mini Test: (30)**

Part 1:\_\_\_\_\_\_\_\_

Part 2:\_\_\_\_\_\_\_\_

 **\*Point/Grade for Unit 1.1:\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **+**

 **\*Points/Grade for Unit 1.2:\_\_\_\_\_\_\_\_\_\_\_\_\_\_(60%)**

 **\*Final Unit 1 Test:\_\_\_\_\_\_\_\_\_\_\_\_\_\_(20%)**

 **\*Days Absence as of today\_\_\_\_\_\_\_: Participation grade:\_\_\_\_\_\_(15%)**

 **\*Lab grade:\_\_\_\_\_\_\_\_\_\_(5%)**

**Overall Grade: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_**

**Parent Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**