Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_­­­ Seat \_\_\_

Unit 2 Study Guide

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| **Objectives** | Define or give an example | |
| Explain the following: |  | |
| 1. Describe the characteristics of solids, in terms of particles and their arrangement: use particle diagrams to account for motion and density differences; |  | |
| 1. Describe melting. |  | |
| 1. Describe freezing |  | |
| 1. Describe the characteristics of, in terms of particles and their arrangement: use particle diagrams to account for motion and density differences; |  | |
| 1. Describe evaporation. |  | |
| 1. Describe condensation |  | |
| 1. Describe the characteristics of gasses, in terms of particles and their arrangement: use particle diagrams to account for motion and density differences; |  | |
| 1. Change of state (draw a diagram and state if energy is absorbed or released.) |  | |
| 1. Describe phase change. |  | |
| 1. Explain temperature. What causes temperature? |  | |
| 1. What is kinetic energy? |  | |
| 1. Relate temperature to the kinetic energy of the particles. |  | |
| 1. Explain, at the particle level, how a thermometer measures the temperature of the system. |  | |
| 1. Explain the basis for the Celsius temperature scale. |  | |
| 1. Describe the Kelvin (absolute) temperature scale. |  | |
| 1. State the basic tenets of the Kinetic Molecular Theory (KMT).. |  | |
| 1. What is heat |  | |
| 1. Explain the difference between temperature and heat |  | |
| 1. What is energy? |  | |
| 1. Explain pressure. What causes pressure? |  | |
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| 1. Describe thermal energy |  | |
| 1. Describe phase energy |  | |
| 1. Draw the heating curve for water |  | |
| 1. Example of gas diffusion |  | |
| 1. Example of liquid diffusion |  | |
| 1. What caused the diffusion (mixing) of particles? |  | |
| 1. What is the relationship between pressure and volume? |  | |
| 1. What is the relationship between pressure and number of particles |  | |
| 1. What is the relationship between pressure and temperature? |  | |
| 1. How are Celsius and kelvin (absolute) temperature scales different? |  | |
| 1. Identify pressure vs. volume, pressure vs. number of particles, pressure vs. temperature (Celsius & Kelvin), volume vs. temperature. | |  |