Name Period Date

Changes in State / 14 pts

STARTER: Fill in the “What’s Happening” section of the table below by looking up the information in your textbook. You do not need to worry about the examples section yet.

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| **Change in State** | **What’s Happening (7 pts)** | **Examples (7 pts)** |
| **Melting** | **The change in state from a solid to a liquid. The reverse of freezing.**  **Melting occurs at a specific temperature for most pure substances. This temperature is called the melting point.**  **Particles are gaining energy.** | **Candle wax becoming liquid. Ice cube turning into liquid.** |
| **Freezing** | **The change of state from liquid to solid. The reverse of melting.**  **At its freezing temperature, the particles of a liquid are moving so slowly that they begin to form regular patterns.**  **Particles are losing energy** | **Liquid water turning into ice. Molten lava turning into solid rock** |
| **Vaporization** | **The change from a liquid to a gas. The reverse of condensation.**  **Particles are gaining energy.**  **Two types of vaporization – evaporation and boiling** | **Puddle drying up in the sun. Water on the stove turning into steam.** |
| **Evaporation** | **Vaporization that takes place only on the surface of a liquid.**  **A change from a liquid to a gas.**  **Particles are gaining energy.** | **Puddle drying up in the sun.** |
| **Boiling** | **Vaporization that takes place below the surface of a liquid as well as at the surface.**  **A change from a liquid to a gas.**  **Particles are gaining energy.** | **Water on the stove turning into steam. (gas bubbles form in the liquid)** |
| **Condensation** | **The change from a gas to a liquid. The reverse of vaporization.**  **Particles are losing energy.** | **Fog on a mirror. Droplets of water on the outside of a glass.** |
| **Sublimation** | **The change from a solid to a gas directly without becoming a liquid first.**  **Particles are gaining energy.** | **Dry ice disappears without becoming a liquid. Snow disappears without melting.** |