**HPS S2 Unit 7 Objective Work 2019 Name:**

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| **Objective:** | **Notes:** | **Resources:** |
| 1. Describe particle arrangement and particle motion in the four states of matter.  KEY CONCEPTS: IMA’s |  |  |
| 2. Illustrate the effect of pressure and temperature on state of matter using a phase diagram  KEY CONCEPTS: Boiling/vaporization, condensation, melting, freezing, sublimation, deposition, pressure |  |  |
| 3. Describe the relationship between temperature and state of matter using a heating curve.  KEY CONCEPTS: Specific Heat, Q=mCAT, Latent Heat of fusion, Latent Heat of Vaporization, Q=mL, endothermic, exothermic |  |  |
| 4. Demonstrate the relationships between pressure, moles, volume, and temperature of a confined gas.  Combined gas law, P1V1/T1=P2V2/T2  Ideal gas law, PV=nRT |  |  |
| 5. Distinguish between chemical and physical properties of matter.  KEY CONCEPTS: Reactivity, flammability, melting point, boiling point, density |  |  |
| 6. Categorize substances of elements, compounds, mixtures and pure substances.  KEY CONCEPTS: Heterogeneous, Homogeneous, Solution |  |  |