

Phase Change Graph Notes

1. Sketch a phase change diagram labeling what is happening in each section if heat is being added to the system.
2. How does adding heat affect the system during the sloped sections of the graph?
3. How does adding heat affect the system during the horizontal sections of the graph?
4. Specific heat is how much heat needs to be added to increase one kilogram of a substance by 1 K. Write an equation to calculate specific heat and give its units.
5. Write an equation for heat in terms of temperature.

6. Should a section on the phase change graph with a greater slope have a higher or lower specific heat than a lower slope section. Explain your reasoning.

7. Latent heat is how much heat needs to be added to complete a phase change of a substance. Explain how to determine latent heat and give its units.

8. Should a longer horizontal section on a phase have a higher or lower latent heat than a shorter horizontal section. Explain your reasoning.

9. Complete the following diagram. This represents the impact of adding energy on the various steps of taking a solid to a gas

