

Honors Chemistry Unit 6: Phases of Matter Assignment Sheet

Note: All video notes will be assigned through EDpuzzle. Points will be awarded for copying down the notes into your notebook and for answering questions correctly on EDpuzzle. Students who do not complete the video notes prior to class will have to take them during class and will receive 50% credit. All video notes assigned before lab dates must be completed in order to participate in labs.

<i>Week</i>	<i>Date</i>	<i>Classwork</i>	<i>Homework</i>	<i>Txtbk</i>
2	1/17	Unit 5 Test	VN #6.1* Pressure, Vol., & Temp.	13.1
	1/18	Phases of Matter Table & P/T conversion WS	VN #6.2* Kinetic Molecular Theory	
Q3 Week 3	1/22	Kinetic Molecular Theory WS	KMT Pre-Lab	13.1
	1/23	KMT Lab (due 1/25)	VN #6.3* Dalton & Graham's Law	
	1/24	Dalton's & Graham's Law WS	Finish CW and KMT Lab	
	1/25	Intermolecular Forces POGIL	VN #6.4* Intermolecular Forces	
Week 4	1/28	IMF Station Lab (due 1/30)	VN #6.5* Properties of Liquids	13.2
	1/29	IMF WS and 13.3 WS	VN #6.6* Evaporation, VP, Boiling	13.3
	1/30	Vapor Pressure Curve WS	VN #6.7* Phase Diagrams	
	1/31	Phase Diagram WS	Unit 6 Review (part 1)	13.4
	2/1	Unit 6 Review (part 2)	VN #6.8* The Gas Laws	
Week 5	2/4	***Ch. 13 Big Quiz***	Absolute Zero Pre-Lab Questions	13
	2/5	Determination of Absolute Zero Lab (due 2/7)	VN #6.9 Combined Gas Law Calculations and Lab Analysis	14.1
	2/6	Pg 879 #1 - 9 (solve and identify the gas law used in each problem)	VN #6.10* Ideal Gas Law and finish Lab Analysis	
	2/7	Pg 437 # 41 - 43, 46 - 49	Molar Mass of Butane Pre-Lab	14.2
	2/8	Lincoln's Holiday - No School		
Week 6	2/11	MM of Butane Lab (due 2/13)	VN #6.11* Gas Stoich @ STP	14.3
	2/12	Gas Stoich @ STP WS	VN #6.12* Gas Stoich (non- STP)	
	2/13	Gas Stoich (non-STP) WS	Finish Unit 6 Review WS	14.4
	CP			
	2/14	Review	Objectives and Organize NB	
2/15	Unit 6 Test and NB check		TBA	

*Fill-in notes handed out the day it is assigned and available on my website: www.tokaysc6.weebly.com

Unit 6 Objectives

1. I know the characteristics of solids, liquids, and gases (volume, shape, attractive forces, and compressibility).
2. I know the six phase changes and can state if the phase change is endothermic or exothermic.
3. I can convert units of pressure, temperature, and volume. I know the values of STP.
4. I understand that the relationship between temperature and kinetic energy.
5. I know the difference between an intermolecular force and an intramolecular force.
6. I know how the following intermolecular forces form (hydrogen bonds, dipole-dipole, and dispersion).
7. I can predict the type of intermolecular forces present between the particles of a substance.
8. I can compare the relative strength of intermolecular forces and use this information to predict which substance will have a higher boiling point, melting point, and vapor pressure.
9. I can relate properties such as viscosity, surface tension, and capillary action to intermolecular forces.
10. I know the postulates of the kinetic molecular theory and can relate them to the characteristics of solids, liquids, and gases.
11. I know the definition of absolute zero and how it relates kinetic energy and temperature.
12. I understand the relationship between vapor pressure and temperature.
13. I can relate the vapor pressure of a substance to its boiling point.
14. I can read a vapor pressure curve and use it to determine boiling point, normal boiling point, and identify the substance with the strongest intermolecular forces.
15. I can use a phase diagram to identify the solid phase, liquid phase, and gas phase of a substance.
16. I can use a phase diagram to identify the triple point, critical point, the temperature and pressure at which a substance changes phase.
17. I can describe how mass affects the rates of diffusion and effusion (Graham's Law).
18. I can explain how gas pressure is measured and calculate the partial pressure of a gas (Dalton's Law)
19. I can perform calculations involving Graham's Law and Dalton's Law.
20. I can explain why the following relationships are inverse or direct; pressure and temperature, pressure and volume, and volume and temperature.
21. I can perform calculations involving Charles' law, Gay-Lussac's law, and Boyle's law.
22. I can represent the relationships in Charles' law, Gay-Lussac's law, and Boyle's law graphically, and I know which variables are held constant in each law.
23. I can perform calculations involving the combined gas law.
24. I know the definition of an ideal gas and can use the ideal gas law equation.
25. I know how use the ideal gas law in terms of molar mass and density.
26. I can relate numbers of particles and volumes by using Avogadro's Principle.
27. I can perform gas stoichiometry at standard conditions (STP).
28. I can perform gas stoichiometry when it is not at STP.