

Name Key
 Teacher _____
 Class _____ Block _____
 Date _____

Ch. 10-11 Study Guide

Complete the table below.

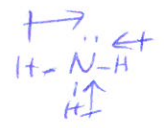
Heating	Freezing Melting	Cooling
Condensation		Sublimation
Deposition		Vaporization
solid to liquid = ice to water = <u>Melting</u>		gas to liquid = dew = <u>Condensation</u>
solid to gas = dry ice to vapor = <u>Sublimation</u>		gas to solid = vapor to frost = <u>Deposition</u>
liquid to gas = water boiling = <u>Vaporization</u>		liquid to solid = water to ice = <u>Freezing</u>

1. Put the following in order from lowest boiling point to highest boiling point.
 water, HF, paraffin wax, octane fuel additive, helium, xenon, methane, ammonia, NaCl

6 5 8 7 1 3 2 4 9

2. Why is HF boiling after ammonia?

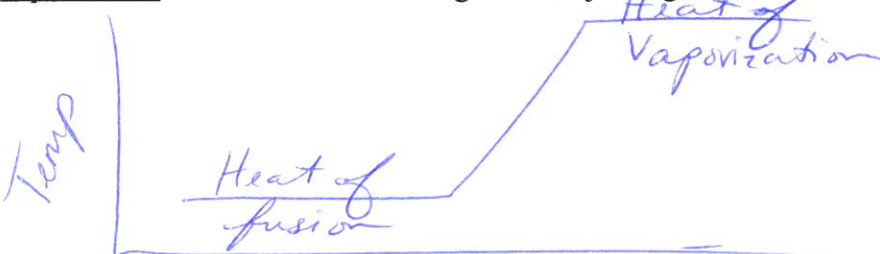
It only has one dipole. It's stronger. $H-F$ Ammonia has 3. It's weaker.



3. Identify the intermolecular force that matches the description. (L, D, H, I)

- a. Hydrogen and nonmetal I
- b. Ionic compounds I
- c. Partial positive and negative ends D and H
- d. All materials have them L
- e. Hydrogen and N, O, or F H
- f. Anything can freeze. L
- g. Weakest of all forces L
- h. Strongest of all forces I
- i. Incorrectly named because forces are between molecules H

4. Draw a graph with a horizontal line and label heat of fusion and another horizontal line and label heat of vaporization. There should be a diagonal line joining the horizontal lines.



5. Energy at the beginning is used to Break forces (melt)

6. Energy at the end is used to Break forces (vaporize)

7. Energy in the middle is used to heat the liquid

8. What is the value for standard temperature? 0°C

9. What is the value for standard pressure? 1 atm

10. What happens to boiling point of water as you move from sea level to the mountains?

decreases

11. What is a phase diagram?

graph to show all states of matter according to temp. and pressure.

Use the Gas Laws WS as the rest of your study guide. You will get the chart to use on your test.