

The Vapor Pressure of a Liquid

Chemistry: <http://genest.weebly.com>

Stop in for help every day at lunch and Tues, Weds., & Thurs after school!

After-hours question? Email me at home: egenest@madison.k12.wi.us

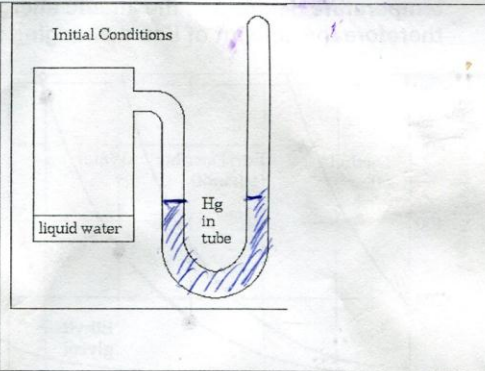
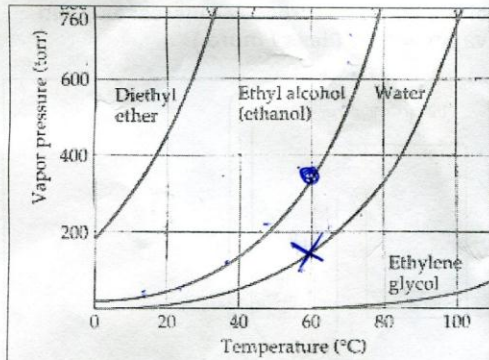


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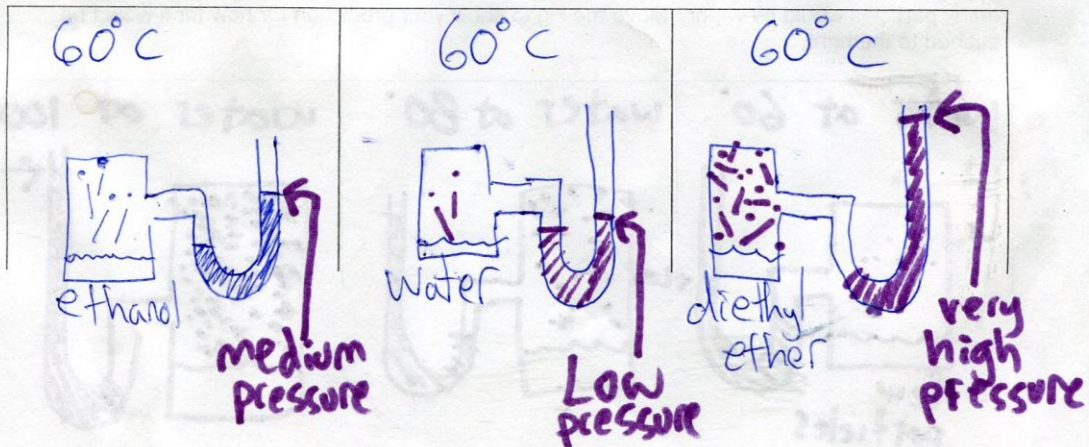
1. Consider these liquids at room temperature:

SUBSTANCE	A	B	C
What temperature?	COLD	HOT	medium
HOW MUCH VAPOR PRESSURE	LOWEST	HIGHEST	medium



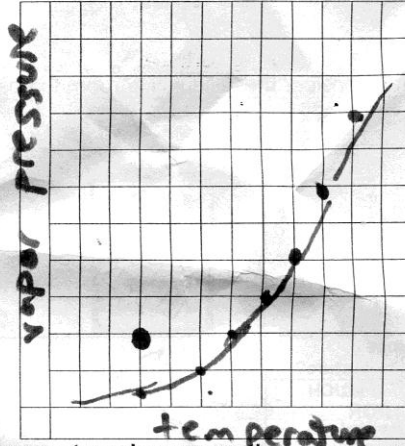
2. Label the three boxes below as "60 degrees C"

Draw a manometer in each box. Instead of water, label the liquid in each as either degree ethanol, water, or diethyl ether. Draw how many particles would be vapor. Move the Hg to show your prediction for how far it would be pushed to the right.

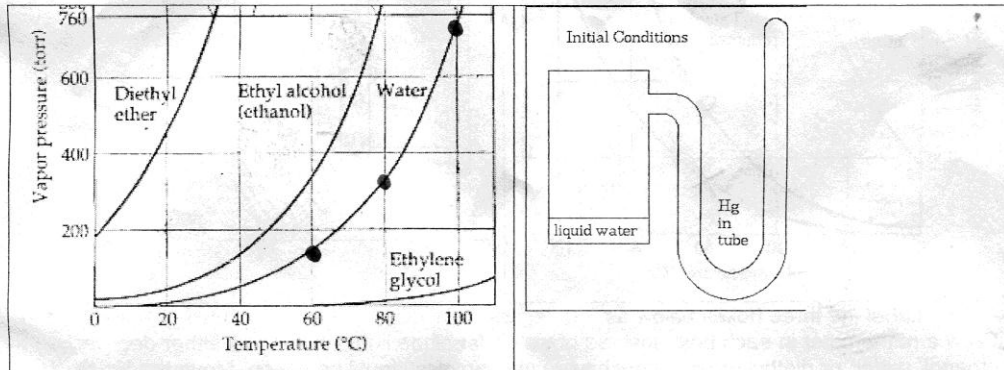


3. Graph this data. Label the X-Axis *temperature*. Number it from 0 to 100. Label the Y-Axis vapor pressure. Number it from 0 to 900. Draw dots with circles for data points. Connect your data points with a line.

temperature [°C]	vapor pressure [torr]
30	20
50	110
60	200
70	300
80	400
90	600
100	800



The graph you made above shows that as temperature decreases, the vapor pressure of a substance will become (lower / higher). This makes sense because as temperature decreases, the kinetic energy of the liquid (decreases / increases) and therefore the amount of liquid changing to vapor will be (less / more)



4. Label the three boxes below as water. Draw a manometer in each box. Each box as either 60, 80, or 100 degrees water. Draw how many particles would be vapor. Move the Hg to show your prediction for how far it would be pushed to the right.

