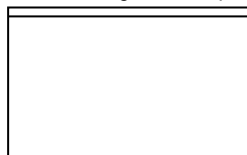
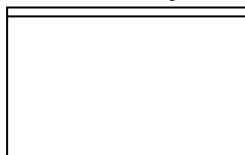


Matter Homework

1. Draw a diagram to represent the movement and arrangement of 8 particles in each state of matter.



SOLID

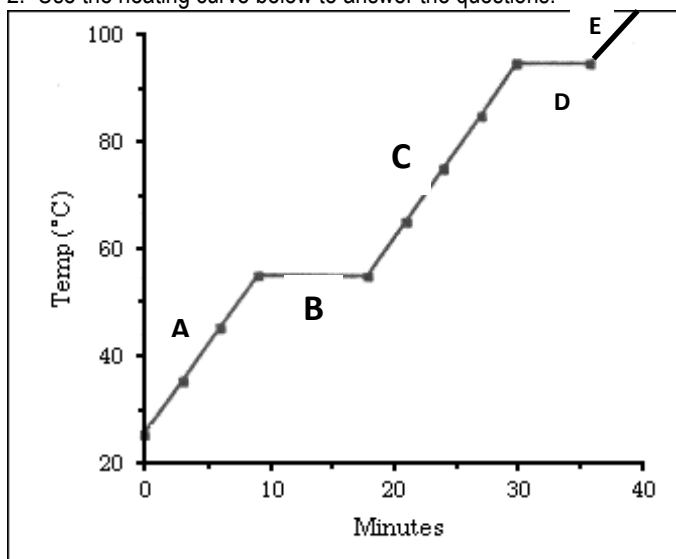


LIQUID



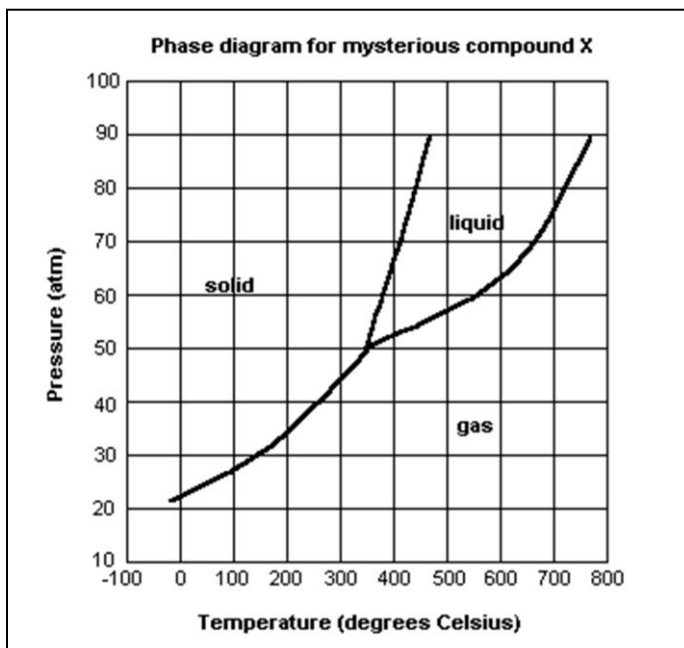
GAS

2. Use the heating curve below to answer the questions:



- What is the melting point of the substance?
- What is the boiling point of the substance?
- What letter on the diagram indicates solid is present *only*?
- What letter on the diagram indicates a gas is present *only*?
- What letter on the diagram indicates a liquid is present *only*?
- What letter on the diagram indicates both solid AND liquid are present?

3. For each of the questions on this worksheet, refer to the phase diagram for mysterious compound X.



- What is the critical temperature of compound X?
- If we were to have a bottle containing compound X on the lab table, what phase would it most likely be in?
- At what temperature and pressure will all three phases coexist?
- If I have a bottle of compound X at a pressure of 45 atm and temperature of 100° C, what will happen if I raise the temperature to 400° C?
- Why can't compound X be boiled at a temperature of 200° C?
- If I wanted to, could I drink compound X?

4. Go to the website: <http://www.sciencegeek.net/> Choose "Chemistry" from the top navigation bar and then "Review." Under "Unit 6" complete the quiz for phase diagrams #1 and phase diagrams #2. Report your score to prove you completed the activity.

a. Phase diagrams #1= _____%

b. Phase diagrams #2= _____%