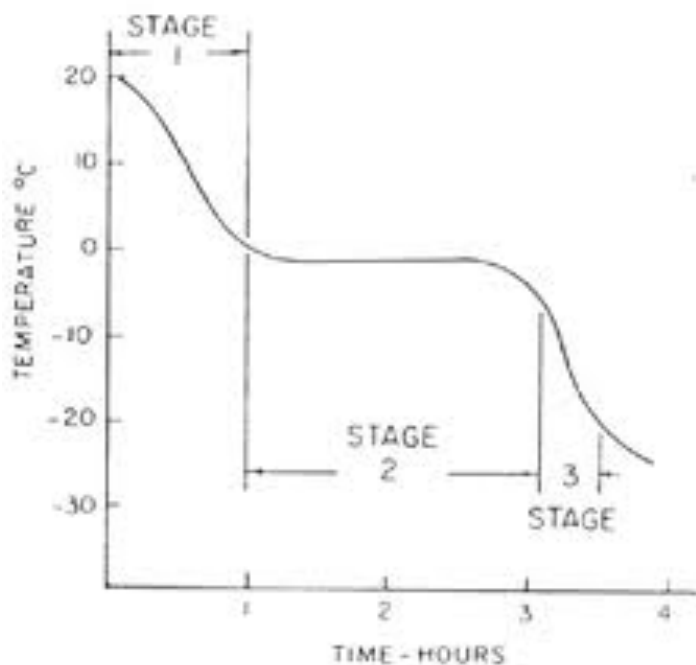


Experiment 3.2 – Freezing Point Post Lab Questions

Directions: Answer the following questions in complete sentences. You will turn these in with your final lab report.

1. In your table, or graph, of temperatures and times, do you notice any difference in the way the substance and the water cooled? If so, what was it and why do you think it did this?
2. What does the plateau (flat surface) represent on the graph?
3. Does the temperature of the plateau depend on the mass of the cooling materials? (Remember all of you had different amounts of moth flakes in your test tube.)
4. Explain the process of melting in terms of energy and particle movement.
5. Explain the process of freezing in terms of energy and particle movement.
6. Using the graph below, during which stage is there (a) only a liquid, (b) only a solid, and (c) both a liquid and a solid?



7. Water freezes at 0°C . Sketch a graph of temperature vs. time for a container of water at 20°C , after it is placed in a freezer at -10°C . Show the temperatures 20°C , 0°C , and -10°C on the vertical axis. Continue the graph until the frozen container turns completely to a liquid.