

Characteristic Properties-Phase Changes: Objectives and Vocabulary

By referring to the various handouts, notes, lab activities and homework covered during this unit, then at the end of this unit of study, each student should be able to:

1. Create, read, and interpret phase change graphs from lab generated data. These include boiling, condensing, melting, and freezing phase changes.
2. Determine the melting point, freezing point, or boiling point of a substance from a time/temperature graph of the substance.
3. Show on a time/temperature graph of a substance, what a different amount of the same substance would look like.
4. Determine the phase of matter for a given substance, when given the melting/freezing point and boiling point of the substance.
5. Describe the energy changes that occur during phase changes.
6. Know and understand the kinematic model of matter to explain properties of solids, liquids and gases
7. Know how the boiling point of a liquid, can be changed by factors like a change in air pressure.
8. Understand how changes in pressure and temperature affect the volume of a gas and could eventually change a gas to a liquid.
9. Define pressure and know how it can be changed.

Vocabulary:

Phase change

Pressure

Boiling (point)

Kinematic model of matter

Condensing (point)

Derived unit

Evaporation

Buoyancy

Melting (point)

Hydrometer

Freezing (point)

Bell jar

Sublimation

Vacuum pump

Plateau