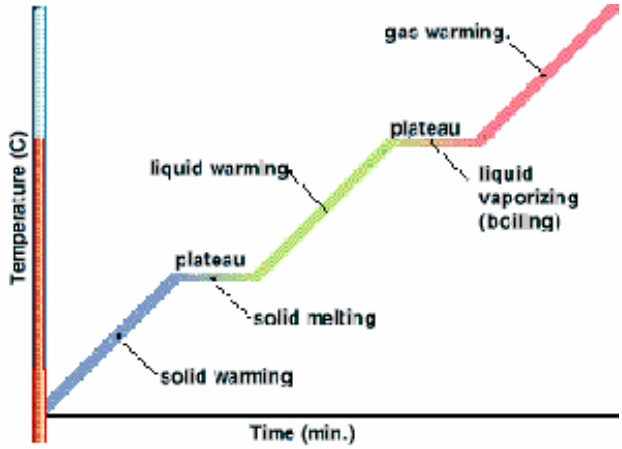
Unit #2 Regents Chemistry

Energy

1. Be able to read and interpret heating/cooling curves as pictured below.



2. Substances that ***sublime*** turn from a solid directly into a gas. (CO_2 & I_2)

3. Degrees Kelvin = °C + 273

4. Use this formula to calculate heat absorbed/released by substances.

$$q = mc\Delta t$$

q = heat absorbed or released (Joules)
m = mass of substance in grams
c = specific heat capacity of substance (J/g•°C) … for water it's 4.18
Δt = temperature change in degrees Celsius

5. The heat absorbed or released when 1 gram of a substance changes between the solid and liquid phases is the substance's ***heat of fusion***. (334 J/g for water)

6. The heat absorbed or released when 1 gram of a substance changes between the liquid and gaseous phases is the substance's ***heat of vaporization***. (2260 J/g for water)

7. ***Endothermic reactions*** absorb heat. The energy value *is on the left side* of the reaction arrow in a forward reaction.

8. ***Exothermic reactions*** release energy and the *energy is a product* in the reaction.

USE THE REFERENCE TABLES!!!