Name _____

Write the formulas for **% error**, **standard heat of reaction**, **heat absorbed/released**, **Gibb's Free Energy**, and **ΔT**. Also write the formula for converting **calories to Joules**

Draw a chart showing the relationship between Gibbs free energy, ΔH, ΔS, ΔT, spontaneity, and direction (K_{eq})

Write the formulas for pH, pOH, $[H^+]$, $[OH^-]$, pH + pOH, $[H^+][OH^-]$ and the MV equation.

Provide the names and units for the variables:

C_p, C_p for water, q, m, ΔH, ΔS, ΔT, ΔG, Heat of Fusion, and Heat of Vaporization

Complete p.531 #32b in text. Show all formulas, work & units

Explain 4 different ways entropy may increase or decrease using words and/or diagrams.

Complete p.510 #10 in text. Show all formulas, work & units.

Draw a complete heating curve diagram. Label all the phases, the phase changes, and the axes.

Use a diagram to show the differences between exothermic and endothermic. Include the side of the equation heat is on, whether the sign is positive or negative, the system vs. surroundings.

Explain the difference between heat of formation, heat of reaction, and heat of solution

Complete p.535 #55c in text. Show all formulas, work & units.

Draw and label both an exothermic and an endothermic enthalpy diagram. Label the axes, energy of the products and reactants, the ΔH, activation energy, and activated complex.

Complete in any direction. Use colors, highlighters, etc. Make sure writing is neat and legible.

 Name _____

Provide the names and units for:

[H+] and molar mass

Draw a pH scale. Label strong and weak acids and bases, neutral solutions, and examples of each. Also include concentration of hydrogen/hydroxide ions on the scale.

Complete p.601 #16 in text. Show all formulas, work & units.

Complete p.625 #48a in text. Indicate the donors and acceptors, and label the conjugate acid-base pairs.

Write the rules for oxidation numbers. Explain LEO says GER.

Write a balanced neutralization equation. Label the acid, the base, and the salt.

Complete p.677 #13. Show all work and units. Indicate whether the reaction is spontaneous or not.

Complete p.659 #70c. Show all formulas, work & units.

Complete p.616 #33 in text. Show all formulas, work & units.

Provide the symbols and units for the variables: Coulomb, ampere, voltage, and standard half-cell potential.

Write an example of a redox reaction. Indicate what is oxidized and reduced; also identify the oxidizing agent and the reducing agent. Show all work.

Draw a voltaic cell. Label the anode, cathode, salt bridge, and direction of electron flow. Indicate where oxidation occurs and where reduction occurs.

Complete p.625 #56a in text. Show all formulas, work & units.

Explain the differences between Arrhenius acids & bases and Lewis acids & bases.

List 3 indicators and their colors in acids and bases.

Complete in any direction. Use colors, highlighters, etc. Make sure writing is neat and legible.