Solutions, Equilibria, and Intermolecular forces

Calculate molarity M= mol/L. Use molarity equation to calculate mols

Effect of relative polarity on solubility

Effect on solubility of gases in liquids by temperature, partial pressure of gas, and relative polarity

Equilibrium reaction between water and CO2

Read solubility vs Temperature chart. (including relationship between slope and change)

Effect of temperature on equilibrium constant

Relationship between Kc of a reaction and Kc of the reverse reaction

What is the value of Go at equilibrium?

What is the relationship between G, H, S, and T?

Use G to predict equilibrium constant (products/reactants favored?

Write expressions for equilibrium constants L18#2

Le Chatelier’s principle:

What are the effects of addition of reactant? Of product? On the moles of other reactants and products?

What are the effects of addition or removal of heat for exothermic reations? Endothermic?

Which direction is favored for a reaction when the size of the vessel is increased?

Create and solve an ICE chart based on given concentrations or pressures.

Calculate an equilibrium constant

Calculate equilibrium constant of a reaction that is the combination of 2 other reactions.

What is the effect on boiling point of decreasing pressure on the surface? Increasing pressure?

What is the effect of changing altitude on boiling point?

What is the effect of size of species on London dispersion forces and hence boiling/melting point/vapor pressure?

Which bonds are broken when a substance boils? Evaporates?

Identify types of forces holding a substance together by its type/formula.

Read Heating Chart. ID mp ID bp

Read cooling chart. Normal freezing point

List three ways to drive a reaction