Can I?

Define solute, solvent, solution, electrolyte and non-electrolyte?

Determine if something is an electrolyte or not? Strong or Weak?

Define a precipitation reaction

Define a precipitate

Given a reaction, determine the precipitate and spectator ions using the solubility guidelines.

Given a word reaction, determine the balanced molecular, complete ionic, and net ionic reactions.

Given a word reaction involving an acid, determine the products including any gasses produced.

Give the products for a neutralization reaction

Define a salt

Given a word equation, determine the elements reduced and oxidized and account for the number of electrons transferred by using oxidation numbers

Define oxidation and reduction in terms of gaining and losing electrons

Define and give an example of a displacement reaction

Use the activity series to determine if a reaction will happen

Determine the concentration of a solution in Molarity given grams in a given volume of solution?

Use molarity to determine the number of moles present in a solution?

Determine the number of grams in a solution given the volume and concentration

Solve a simple dilution problem

Solve solution stoichiometry problems by following the steps below-

Step 1 – write and balance the chemical reaction
Step 2- write the net ionic equation identifying spectator ions
Step 3 - convert molarity and volume to moles of reactants

Step 4 – determine the limiting reactant
Step 5 –Solve for the concentration of each ion by performing the following-

First determine the new total volume. This will be the denominator in ALL the following steps.

Second you should know the concentration of the ion in the limiting reactant **and** the precipitate is zero. *Remember if it is limiting it is all used up. Also remember that if it is a precipitate it is not in concentration because it is not soluble.*

The concentration of any spectator ions can be found by taking their initial moles and dividing by the new total volume.

To find the concentration of the excess ion you need to solve the following equation-

X/ total volume

X is equal to the initial moles of excess reactant – moles of precipitate.

Total volume is the volume of both reactants added together