Chemistry 20	Unit 3
Lesson 1 - Introduction to Solutions	84 mins

Unit C - Solutions

Mixtures

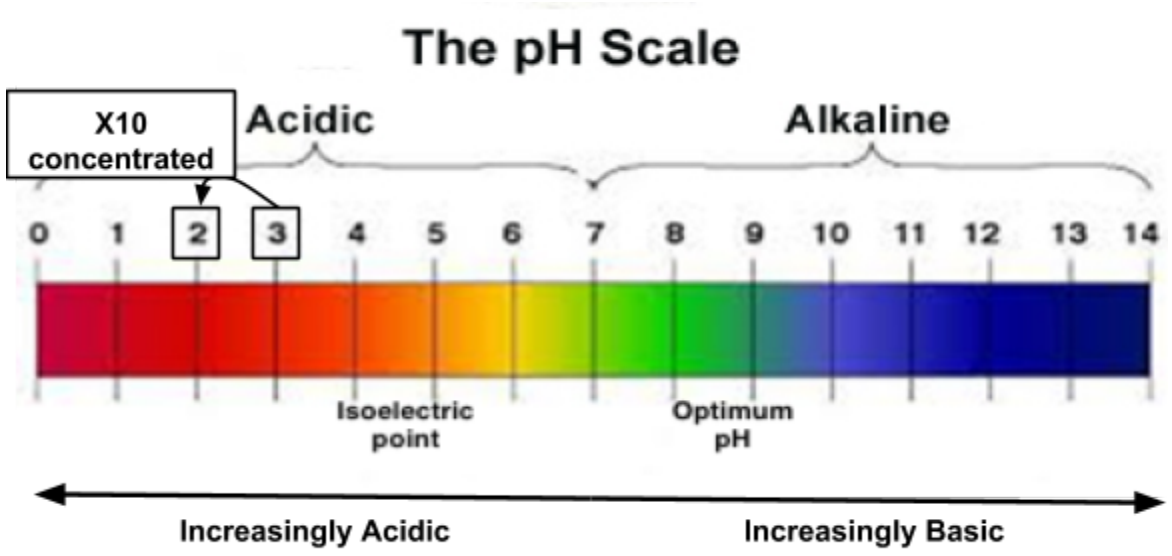
1) Mechanical Mixture - All different parts visible 2) Suspension - Particles suspended - Ability to be <u>FILTERED</u> 3) Colloid - Resists Filtration 4) Solution *** - Can only see one part	Homogeneous - Looks the <u>SAME</u> Heterogeneous - See different Parts

Solutions

- Solute dissolved in a solvent Electrolyte - Solutions conduct e Nonelectrolyte - Solutions that do NOT conduct e	Solute - material that gets dissolved Solvent - material that surrounds the solute Eg. neutral IONIC solutions, $NaCl_{(aq)}$, Acids, Bases Eg. Neutral covalent compounds $C_{12}H_{22}O_{11(aq)}$

pH Scale

- "Amount" of Hydrogen in a solution	- Logarithmic Scale (powers of 10)



Chemistry 20 - Unit 2 - Introduction to Solutions

Name: _____

1. What is a mixture? List and describe four different types of mixtures. Be sure to use the terms heterogeneous and homogeneous in your answer.

2. All solutions are made from two components. What are these two components?

3. All solutions can be classified as either electrolytes or nonelectrolytes. What are the key differences between an electrolyte and a nonelectrolyte? Give an example of each.

4. All electrolytes can be described as being acidic, basic, or neutral. Using the pH scale, explain the key differences between each of these.

5. Classify each of the following mixtures as either heterogeneous or homogeneous. Justify your answers.

    a. Orange juice

    b. White vinegar

    c. Milk

    d. Road gravel

    e. Swimming pool water

    f. A mud puddle

6. Which of the following substances are solutions?

a. Milk

b. Pop

c. Pure water

d. Lake water

e. Rainwater

7. Classify each of the following compounds as an electrolyte or a nonelectrolyte when dissolved in water.

a. Sodium fluoride (a component of toothpaste).

b. Sucrose (table sugar).

c. Calcium chloride (road salt).

d. Ethanol (a component of wine).