**Extra Review Practice – Unit 6 Properties of Matter**

**Review Questions**

1. All matter has what two properties?

Mass and Volume

1. What are the following changes of state called:
   1. Liquid to Gas – Vaporization or melting
   2. Gas to Liquid – Condensing
   3. Solid to gas – Sublimation
   4. Gas to solid – Deposition
   5. Gas to liquid – Condensing (ooops… again)
2. When you think about salt water or ocean water, what would be the solute? What would be the solvent?

Solute – salt (what gets dissolved)

Solvent – water (what does the dissolving)

1. Would the following be an element, compound or mixture?
   1. Water (H2O) – Compound
   2. Hydrogen – Element
   3. Salt water – Mixture
   4. Oxygen – Element
   5. Carbon Dioxide (CO2) – Compound
   6. Ink – Mixture (Think about our lab, Did Pete Cheat?)
2. Are the following physical or chemical properties?
   1. Reacts with acid forming bubbles - Chemical
   2. Changes to a purple color when dyed - Physical
   3. Has small crystals – Physical
   4. Turns red when heated – Physical
   5. Is chunky and blue – Physical
   6. Rusts into another substance – Chemical

**Mega Matching – Match the following terms with their definitions.**

\_\_S\_\_ A type of colloid in which a liquid or solid is suspended in a gas (like 2 chainz’s new axe like body spray)

\_\_w - matter (oops this wasn’t on original the list!!)\_\_ Anything that has a definite shape and volume

\_\_P\_\_ A type of colloid with liquid particles spread out in a solid (like hair gel)

\_\_T\_\_ A type of colloid with two liquids (like the lotion 2 chainz uses on his smooth skin)

\_\_Q\_\_ Anything that doesn’t have a definite volume and shape

\_\_I\_\_ A uniform mixture with the same composition throughout (like lemonade)

\_\_H\_\_ A heterogeneous mixture where the parts are visibly separate (like mud or paint)

\_\_F\_\_ A pure substance composed of elements that have been combined chemically in fixed rations (like carbon dioxide)

\_\_G\_\_ A heterogeneous mixture in which the particles are so small that they stay in solution (like non-expired milk)

\_\_J\_\_ A mixture that is not uniform throughout (like a pizza)

\_\_M\_\_ A homogeneous mixture made of a solute and solvent

\_\_N\_\_ The material in a solution that is dissolved in the solvent

\_\_O\_\_ The material in a solution in which the solute is dissolved

\_\_L\_\_ A change in matter that does not produce a new kind of molecule

\_\_K\_\_ A change that produces new chemicals with new properties

\_\_x - mixture (oops wasn’t on the original list either!!)\_\_ A type of substance that contains two or more components that can be separated by physical means

\_\_V\_\_ A pure substance made of only one kind of atom

\_\_D\_\_ A solution that can still dissolve more solute

\_\_E\_\_ When a liquid becomes a solid

\_\_C\_\_ A solution that has the maximum amount of solute that can dissolve in the solvent

\_\_A\_\_ A solution that contains more solute at a certain temperature than it would normally be able to hold

\_\_B\_\_ The maximum amount of solute that can be dissolved in 100 grams of solvent at a certain temperature and pressure.

1. Supersaturated Solution
2. Solubility
3. Saturated Solution
4. Unsaturated solution
5. Freezing
6. Compound
7. Colloid
8. Suspension
9. Homogeneous mixture
10. Heterogeneous mixture
11. Chemical change
12. Physical change
13. Solution
14. Solute
15. Solvent
16. Gel
17. Gas
18. Solid
19. Aerosol
20. Emulsion
21. Compound
22. Element
23. Matter
24. Mixture

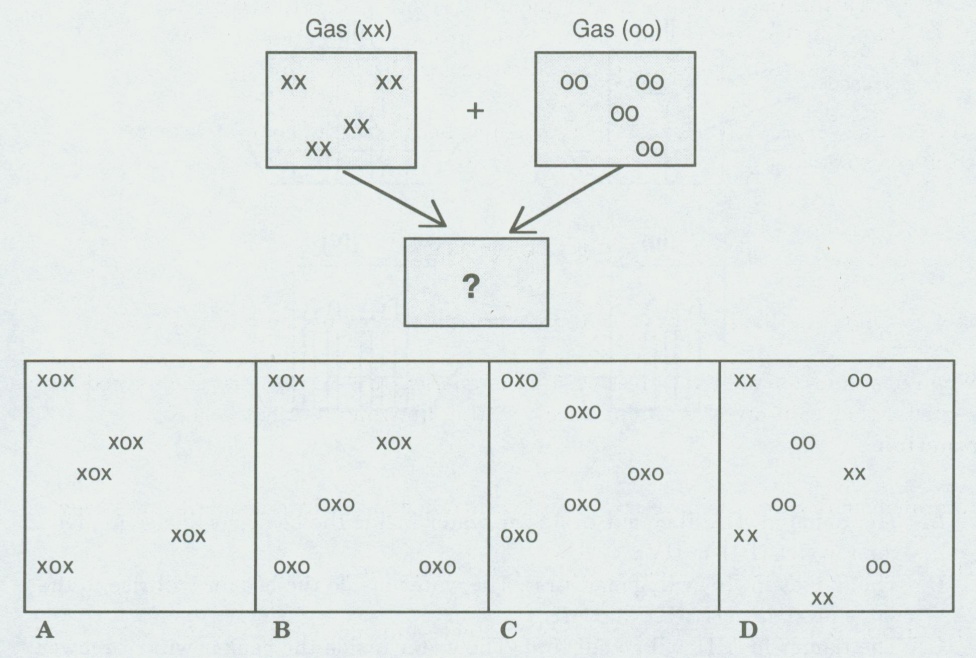
**Questions Based on Graphics:**

1. Which picture would best show two gases that have been combined as a mixture?

D – mixtures are not chemically bonded together, so while they would both exist in the new picture they would not have rearranged their molecules

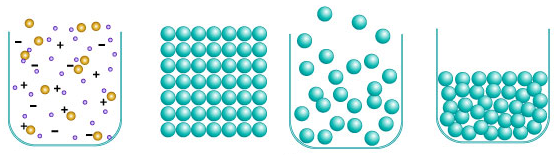
1. Which picture would best show two gases that have been combined as a chemical reaction?

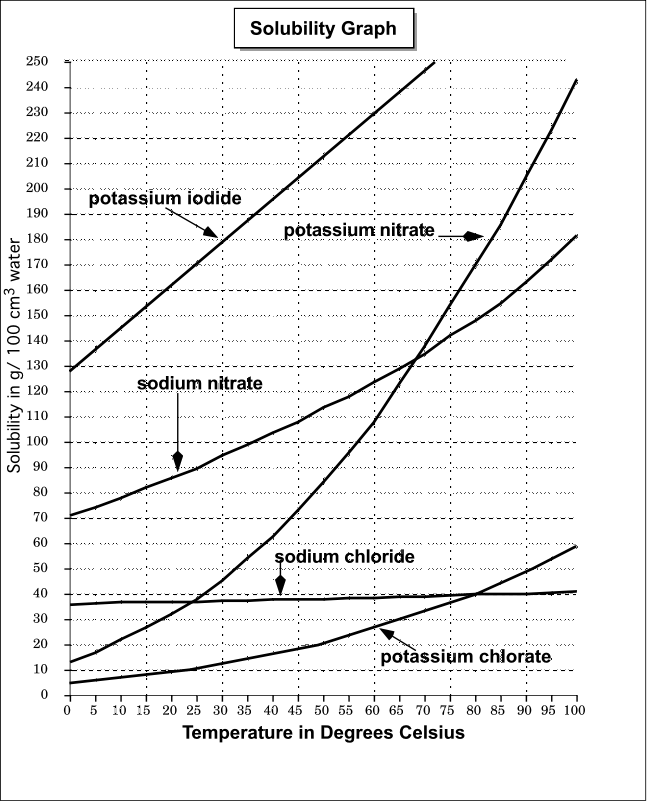
B – chemical reactions would rearrange the bonds, so the two types of gases and now together, however out of the three that show this C most correctly reflects the balance between the two gases



1. List the states of matter seen below in order they appear:

Plasma, Solid, Gas, Liquid





1. What is the solubility of sodium nitrate in 100 cm3 of water at 50 degrees? About 120 g
2. What is the solubility of potassium nitrate in 100 cm3 of water a 100 degrees? About 242 g
3. Based upon the graph above as temperature \_increases\_ the solubility of these chemicals \_increases\_.