Unit 7 Solution Chemistry NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reading Guide pp. 512 – 519 Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Complete the following questions or activities as you read section 15-3 in Chemistry: Connections to….

1. Summarize the section on How a Solution Forms. Include what happens to ions, where solvation occurs, where the molecules/ions end up, and what the solution looks like.
2. Define or describe ‘solubility’. Use ‘solute’, ‘solvent’ and ‘saturated’ in your answer.
3. What units do we usually use to express solubility?
4. What do ‘polar’ and ‘nonpolar’ refer to regarding solutions?
5. What is the three word phrase that covers what dissolves in what? (i.e. what is the something in “something dissolves something”)
6. What’s the most common polar solvent?
7. How are nonpolar solvents generally described?
8. When looking at the list of polar and nonpolar solvents on p. 514, what element is present in all the polar solvents that is not present in any of the nonpolar solvents?
9. Ionic compounds will dissolve in which of the solvent types? Why?
10. The solubility rule (from #5) is like dissolves like. How is sodium chloride like water?
11. As solution temperature increases, what happens to gas solubility?(Fig. 15-16)
12. As solution temperature increases, what happens to solid solubility?(Fig. 15-17)
    1. Notice the units on each figure. How is solid solubility expressed? Gas solubility?
    2. How do the authors suggest to make a supersaturated solution?
13. Which solutions show the greatest effects of pressure on solubility?
14. Describe what happens to gas solubility when a bottle of pop is opened.
15. What 3 factors affect the rate at which dissolving (dissolution) occurs?
16. How do each of the above affect dissolution?

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