8th Grade – Solubility

Solubility is the measurement of how much of an object can dissolve in a solvent, such as water.

Solubility is unique to every different element and compound. **No two substances have the same exact solubility!**

The units for solubility in the chart below are **grams / 100 mL H_2O** which means that the amount of grams you see below is the amount that would dissolve in 100 mL of water at room temperature.

SUBSTANCE	SOLUBILITY (g/100mL H_2O)
Sodium Chloride	35.89
Sodium Nitrate	80.8
Copper Sulfate	32
Carbon Dioxide	0.1782
Iron Bromide	117
Calcium Iodide	66

This means, if you took 100 mL of water, the MOST sodium chloride that could completely dissolve is 35.89 g. Any more than this would be left at the bottom of the test tube as you saw in your experiment.

What if you wanted to figure out how many grams would dissolve in 5 mL of water, like we saw in our experiment? Well think about how many times 5 goes into 100. All you need to do is divide the values above by that same number!

Example: The solubility of lithium chlorate is **372 g / 100 mL water**. This means that if you had 100 mL water, you could dissolve up to 372 g of that substance. Divide 5 into 100: what do you get? Take that number and divide 372 by that. What is your result?

You will need to be able to complete this to answer the questions I have posted onto my website.

To access these questions:

Go to   andrew-ross.ehcs.schoolfusion.us

On the left, use your username and password to log in to schoolfusion

At the top of my page, you will see Quizzes

Underneath of this header is "Solubility." Click on this and follow the directions.

I have given you 2 ½ minutes to answer each of the questions so use your time wisely!