

Monday, February 9th, 2015

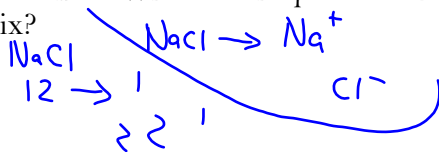


Learning Target: I can explain why a solution forms in terms of polarity and solubility.

Homework: Study for Quiz Thursday

As you enter...

What does it mean for a solute to **dissolve** in a substance? What are the particles doing as they mix?



Note: Hand in Table G HW to bin

Big Idea: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.



3rd/4th period

- Solutions and Solubility Stations (60 min)
- Stations Recap (15 min)
- Exit Tix (5 min)

*You do not need to hand this packet in.

*Your first two stations will be checked for completeness and accuracy at the half way mark. Your last two stations will be checked just before the end of the block.

1. What is solubility?

ability to dissolve solute in solvent (H_2O)

2. In terms of polarity, how can you determine if two substances will form a solution before actually mixing them?

polar vs nonpolar

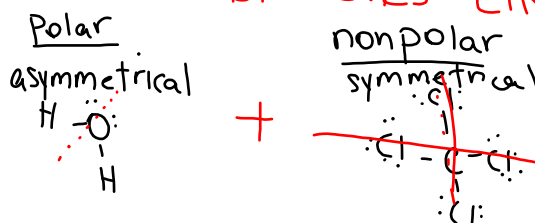
polar + polar molecule = solution

nonpolar + polar ~~not~~ solution / insoluble

nonpolar + nonpolar = solution / soluble

ionic + nonpolar \neq solution

"LIKE DISSOLVES LIKE"



Tix out the door

Write your name and **EMAIL** on the paper, please.

Why does NaCl dissolve in water?

Your response should include...

- polarity of NaCl and H_2O
- particle diagram of substances interacting

Final Project for Solutions Unit (worth test grade)

- Look over the 6 experiment options and sign your name to one that you would be most interested in exploring and presenting for your project.
- Groups will be made based on interest and max out at 4 people.
- You will have class time to perform the experiment and then you will conduct a poster presentation of your group project right after February Recess.

Before the end of the period, once you have made your decision, read over the appropriate guidelines with your group and agree on group roles with your initials.

Wednesday, February 11th, 2015



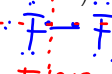
Learning Target: I can apply my understanding of polarity to predict solution formation.

Homework: Study for Quiz tomorrow

As you enter... Write out the question or rephrase it.

Identify the following molecules as ionic (metal + non-metal), or polar (covalent), or nonpolar (covalent):

1. F_2



2. $MgCl_2$

Ionic

3. H_2O

Polar



Circle the two substances most likely to form a solution.

Big Idea: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.



3rd period

- Solutions, or nah?? (15 min)
- Lab 14 [revisited]: Solutions and Dilutions (30 min)

4th period

- Develop Procedures for Final Project (40 min)
- Exit Tix (10 min)

–Work as a team to write out a detailed procedure for your group project. Visualize in your head how every step will be played out.

–Use your guidelines and rubric to make sure everything is included.

–Be sure to number each step.

–Be sure that every member is being held accountable for their role and that all members are participating equally.

$$\text{Molarity} = \frac{\text{mol}}{\text{Liters}}$$

$$\text{Moles} = \frac{\text{mass}}{\text{gram formula mass}}$$

$$\boxed{\begin{array}{l} nL \rightarrow L \\ \text{divide by } 1000 \end{array}}$$

Tix out the door



Write the names of present group members on the paper.

Write a detailed list of every single piece of equipment and material that you will need to carry out your experiment over the next two days.

→ 1M CuSO_4 in 50 mL H_2O

K H D B D C M
 L { } * mL

① 0.50 L

② $M = \frac{\text{mol}}{L}$

$1 = \frac{x}{.05}$

$x = 0.05 \text{ mol}$

③ $\text{mol} = \frac{\text{mass}}{\text{gfm}}$

$0.05 = \frac{x}{160 \text{ g}}$
 $x = 8 \text{ g}$

Thursday, February 12th, 2015



Learning Target: I can collaboratively develop a detailed procedure for my experiment.

Homework: Finish and hand in missing labs

As you enter... Write out the question or rephrase it.

Prepare for your quiz...

- You will need a calculator, a pen/pencil, and your reference tables.
- You will have 20 minutes to complete the quiz.
- **NEW QUIZ POLICY:** You may retake a quiz **ONCE** during your lunch or after school.

Big Idea: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.



3rd period

- Solutions Quiz (20 min)
- Write up procedures and equipment list to be handed in (25 min)

Friday, 3rd period

- Black History Month Assembly (meet here for attendance)

Friday, 4th period

- Conduct experiments (45 min)

When you finish the quiz...

- Work as a team to write out a detailed procedure for your group project. Visualize in your head how every step will be played out.
- Use your guidelines and rubric to make sure everything is included.
- Be sure to number each step.
- Be sure that every member is being held accountable for their role and that all members are participating equally.



Tix out the door

Write the names of present group members on the paper.

Write a detailed list of every single piece of equipment and material that you will need to carry out your experiment over the next two days.